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BIBLIOGRAPHY OF ATOMIC AND MOLECULAR INNER-SHELL EXCITATION STUDIES

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Codes

P - photon impact (photoabsorption, ionic photofragmentation)
E - electron impact (electron energy loss, (e,e+ion), (e,2e) coincidence)
R - review
T - theory, calculation

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an update of: A.P. Hitchcock and D.C. Mancini, J. Electron Spectrosc. 67 (1994) 1-132.

supercedes: 24-Aug-98 update of the 25-Jun-93 published edition. (Other updates: 28-Feb-94, 21-Sep-95; 15-Jul-96)

ATOMS

updated: 23-Jan-03

Atom/ Level	Ref	Energy (eV,keV)	Code	Comments
Al 2p	CTS82	77- 83	P	relative, absorption by Al I in flash pyrolysis plasma
	S85	77- 83	P,R	Al I in plasma
	BKM88	72-100	P	laser plasma absorption; laser X-rays; compared to other Na I series
	CE&92	60-240	P,T	Al^+; relative, laser generated and probed; MC-SCF calc.
	KMC96	80-100	P	laser plasma study of Al^+; comp. to Mg, Si^{++}
	CK&98	76-82	P,T	Al(0); dual plasma; ab initio calc.
	W01	48-100	P,R	review of atom and ion photoionization
	WA&01	80-160	P,T	aboslute; Al^+, Al^{++} cross-sections
Ar 2p	P34	200-300	P	FIRST ATOMIC CORE EXCITATION MEASUREMENT
	LZ63	50-4000	P	absolute
	S66	200-300	R	absolute
	FC68	50-810	T	absolute, ab initio calculation
	NS&68	243-252	P	photographic, Rydberg analysis IP (248.52, 250.55)
	AG&69	0-450	E	angular dependence of inelastic scattering, differential X-section
	D69	238-262	P	absolute
	WM69	155-305	P	photographic, Rydberg analysis IP (248.5, 250.6)
	HK&71	250-260	P	relative, comp to solid Ar
	WW71	20-400	E	absolute, multiple ionisation
	ZG71	50-810	R	review of atomic photoionization
	WB72	200-300	E	absolute, TRK sum rule normalisation
	C73	200-300	P,R	review of atomic photoabsorption
	WWT76	240-280	E	ion yields, post-collision interaction, quadrupole transition
	KT&77	242-252	E	Rydberg analysis IP (248.62,250.77), Z+1 analogy, <70meV res.
	R78	244-250	E	Rydberg analysis IP (see KT&77), Z+1 analogy
	GHF81	243-252	P	0.1 eV FWHM
	SC82	253	E	(e,2e) Auger-ELS coincidence, anisotropic angular correlation
	SK&82	243-248	E	dipole forbidden transitions, 2p->4p intensity as f(K)
	SD&83	243-267	T	absolute, comp. to expt.(NS&68), core-hole relaxation emphasized
	HM&84	243-253	P	absolute, total and ion yield spectra, P.C.I.
	K84	243-248	E	k-dependence of 4p/4s intensities; I(4p)>I(4s) for k>2bohr^{-1}
	SB84	244.37(2)	E	calibration standard($2p_{3/2}$->4s)
	SC84	254	E	in-plane ang. variation of (e,2e) Auger-loss, PCI distorts alignment
	SV84	253	E	out-plane ang. variation (e,2e) Auger-loss, PCI distorts alignment
	SA&86a	256,308	E	(e,e',Auger), (e,2e) coincidences, PCI
	YK&86b	245-260	T	absolute; ab initio, radial correlation only, comp. to expt [NS+68]
	HL&87	240-260	P	threshold PES, shake-off at discrete res.
	AA&88	244-248	P	DES, shake-up (spectator decay dominates)
	EB&88	242-256	P	Ar+ and Ar2+ yield, PCI, shake-down (to 2 eV above L2)
	HM&88	242-258	P	(threshold e-, photoion coincidence); multiple ionisation
	C89	254-260	T	ang. dist. of resonant Auger; res. of multiplets
	CM&89	244,246	P	resonant Auger, ang. dist.; comp. of Ar,Kr,Xe
	PK89	100-300	T	absolute, MBPT, comp. to expt. (NS&68, LZ63, D69), double ionisation
	SS&89	242-256	P	relative, res. check (0.4 eV FWHM), apparatus description (CSRF)
	AA&90a	244,245	P,T	DES, shake-up fraction comp. of Ne1s, Ar2p, Kr3d, Xe4d
	DC&90	400-2000	E	(Auger-ej.e-) coinc.; both 205 eV KE; angular distr.; strong threshold spike
	HMS90	243-254	P	ZEKE yield, ZEKE-ion coincidence
	KY90	247-248	T	absolute; HF-multi config; 3% monopole redist.; 2p63d lineshape
Ar 2p ..	M90	245-270	P	ion desorption, AI spectrum (DES), comp. to gas

	PB90	242-255	T	relative, sol. Ar, comp. to expt. (HK&71), shape res.!
	VM&90	244	P	(hv,2e); 2-step autoionization decay of discrete states in Ar, Kr, Xe
	HM&91b	249-254	P	ZEKE at 0.15 eV fwhm; PCI (Niehaus) line shape; Ryd. res.
	II&91	>250	E	PCI shift of Auger, comp. of Ar LMM, Kr MNN, Xe NOO
	MR&91	245-248	P	DES, 3d-collapse, shake prob. of spectator type strong function of n
	RJ&91	240-320	P	atomic vs. cluster (Nbar to 3); Ar_2^+ yield, EXAFS of clusters, 4s exciton
	S91a	240-270	P,R	autoionisation of Rydberg res., comp. to Xe 4d
	AA&92b	244-250	P	resonant AI; ion branching ratios; comp. of Ar, Kr
	RS&92d	240-390	P,T	absolute; comp to Ar_n clusters, 4s, EXAFS at 6 sol.
	CC&92	200-400	E	absolute; comp. of Ar, Kr, Xe
	DM&92	243-251	P	high res. (70 meV); SX-700II characterization
	GE&92	243-251	P	resonant Auger (AI); post collision effect; comp.to theory
	ZKP92	200-290	T	anomalous scattering factor; reflects Ar 2p resonance edge structure
	HM&92a	240-290	P	ZEKE-TIY; shake-up vs. 2-electron
	SS92d	44-1300	P	PIY and BR for multi-charge ions of Ne, Ar, Kr, Xe; ΔBR at edges
	C93	100-5000	T	X-sect; β; comp. of all rare gases; ang. cor. correct.; dipole breakdown
	MB93	244.4	T	ab initio, GOS calc., OOS=0.0078); comp. to all earlier calc.
	RH&93a	240-290	P	comp. of atom, cluster, solid; Ryd.-exciton; EXAFS
	AD&94	243-256	P	ZEKE; small 4s, large 3d resonance; PCI shift 0.28 eV
	AK&94	243-248	P	50 meV fwhm; SX700 performance test; obs. 135 mV; nat. 116 mV
	GE&94	244-252	P	3s/3p partial PI yields; coupled to 3d res.; Fano lineshape; comp to Kr 4s
	KJ&94	240-260	P	comp. of threshold (zeke) of Ar, Ar_n; PCI lineshape analysis
	LH&94	245-255	P	zeke spectrum, apparatus for (azepeco)
	SS94	240-280	P	BR of multiple PI; Auger; comp. of 2e- ionization of Ne,Ar,Kr,Xe
	AK&95c	240-260	P	SX700 pgm performance at MAX; Ar 2π∗ mat. width <110 meV
	BF&95	243-248	P	partial ion yields; comp. of atoms & clusters
	CC&95	240-260	P	SGM at SRBC performance test; high resolution
	GE&95	247-252	P,T	$L^3M^{23}M^{23}$ resonant Auger at Ar 2p res.; PCI and time dep. model of decay of Rydberg states needed; new interference lineshape predicted
	IK&95a	240-370	P	absolute; Beers law determination; corr. for stray light, higher order, optics
	QO&95	243-251	P	high resolution (19 meV estimated); SGM 5-grating system (17-900 eV)
	SK&95c	244-249	P	accurate natural linewidths; partial ion yields
	BA&96	190-260	P	partial ion yield, pre-edge ioniz. tails to ~20 eV below IP; 2p/1s comp.
	BS96	100-500	P,R	absolute, partial cross-sect.
	FH&96	245-260	P	high resolution (E/dE~4000); variable line spacing PGM
	HZ96	242-256	P,R	relative, partial & total ion yields; review ion yield spect. of atoms
	KT&96	250-252	P	TPEPICO of Ar^{2+}, Ar^{3+}; PCI at L_2 edge
	L96a	250-450	E,R	Auger-scattered electron coincidence; angular distribution
	RK&96	240-265	P	comp to clusters, TIY, AEY
	SK&96	243-253	P	high res.; Γ(4s)=114(2)eV up to Γ(6d)= 139(10) eV; comp. to SK&82
	SS&96	242-253	P,T	absolute; PCI at Ar 2p threshold; fluorescent yield; width as f(n)
	TH&96	244-254	P	ZEKE; Lorentzian lineshapes; channel effects on natural linewidth (120 meV)
	AEB97b	242-253	P	TIY, PIY, charge state mapping
	FH&97	243-250	P	angular-resolved Auger; β values
	LB&97	244,246	P	resonant, non-res. Auger at 4s, 3d; angular dist.; test of spectator models
	SLS97	248-253	P	Auger, ion yield; fluorescence; PCI effects on PES
	WW97	248-268	E	(e,2e) EELS-Auger coincidence; angle-dependent interference; β values
	HK&98	250	E	resonant Auger excited by EI; weak
	SS98a	240-270	P	charge state PIY; PE-PI coincidence
	US&99a	244	P	4s Auger; lifetime-interference effect on ang. Dist.; 'second step' Auger
Ar 2p ..	FL00	240-255	E	GOS; comp to theory (MB93); 4s structured; areas used; no geom. overlap correction; 1.5 to 9.5° scattering angle

	SP&00	244-254	P	SB7 LURE beamline tests; ΔE/E > 8500
	MB&01	243-245	P	DES; Fano profiles vary with AI channel; classic channel inteference
	US&01	244-246	P	resonant Auger; angular distribution
Ar 2s	LS&87	320-380	T	absolute, effect of correlation and core-hole relax.; comp to expt. (LZ63)
	KY97	320-340	T	RPAE calc.; virtual Auger decay; comp. to expt.
	LP&00	240-335	P,T	Auger threshold coinc; resonance enhanced double ionization; Coster-Kronig; sub-natural linewidths; 'continuum' resonance Raman Auger
	SK&02	321-330	P	detailed line shape analysis, Coster-Kronig spectroscopy
Ar 1s	P39	3.2 keV	P	10eV about edge, photographic
	SS59	3.2 keV	P	relative; comp. of gas-solid
	S63	3.2 keV	P	35eV about K-edge, double excitation (KM)
	W65	1.5-6.2	P	photographic, absolute
	Wa65	3.2 keV	T	fit to lineshapes of S63
	SP66	3.1-3.2	P	absolute
	SBB68	3.2 keV	P	40 eV about edge, gas-solid comparison
	AP74	3.2 keV	P,R	review of analyses
	H77a	3.1-3.6	P	double excitation structure
	SD&79	3.1-3.2	T	absolute, comp. to expt. (SP66), inner-shell relaxation
	B80	3.2 keV	P,R	review, (P39 data)
	BC&80	3.2 keV	P	Rydberg series analysis
	AIK81	3.2 keV	T	absolute, compared to experiment (S63)
	BQB81	3.2 keV	T	ab initio calculation, compared to experiment (BC&80)
	DLR82	3.2 keV	E	test of modified Bethe sum rule, 25 keV impact, #1s e-'s =1.54(6)
	DL&83	3.18-4.55	P	(1s,3p) and (1s,3s) double excitation, emission, absorption compared
	TA85	3.2 keV	T	post-collision interaction
	YK&85	3.20-3.24	T	absolute, HF-multi config.; E,f calc; comp. to expt. (SP66)
	CH86	3.20-3.26	P	double excitation (1s2p)
	D86b	3.2-3.3	P	absolute, photon-selected emission spectra; KM transitions
	DL86	3.20-3.27	T	interpretation of (1s3p) double excitation via Ar K-β satellites
	LG&86	3.20-3.36	P	double excitation (1s3p); gas ionisation detector; ppm sensitivity
	YK&86b	3.2 keV	T	ab initio, radial correlation only, comp to expt
	KYP87	3.20-3.24	T	absolute; HF-MC; E,f calc; comp to expt (SP66)
	C88	3.20-3.26	T	absolute, double excitation, comp. to expt. (DL&83)
	V88	3.2-5.2	T	shake-up/off; comp to expt (AA&85)
	LB&90	3.2-3.24	P	Auger-ion coinc in discrete, cont., double Auger, PCI-recapture
	S90a	3.20-3.26	T	near threshold, multiple excit. (2e) in first 50 eV of continuum
	LB&91	3.19-3.22	P	Auger-ion coinc, PCI, charge state yields
	KH91	3.48-3.54	P	KL double excit., 0.3% of 1e- continuum
	US&91	3.19-3.22	P	total and partial ion yields,Ar^{+} to Ar^{6+}; threshold effects
	DMD92	3.20-3.60	P,T	absolute; KM, KL double excit.; HF & DF calc.
	S92	3.20-3.26	P,R	KL double excitation
	C93	100-5000	T	X-sect; β; comp. of all rare gases; ang. cor. correct.; dipole breakdown
	DA&93	3.19-3.22	P	relative yields of all ions at threshold; non-diagram trans; double PI
	RH&93c	3.1-3.8	P	comp. of atomic, cluster, solid XANES and XAFS
	TK&93	3.21-3.22	P,T	relative; treats unresolved Ryds as quasi-continuum; 6p Ryd=IP=3216.34 eV
	HW&94	3.19-3.34	P	threshold yields; PCI lineshape; shake-up model for KM satellites
	LM&94	3.19-3.22	P	(e,ion) coinc.; total and partial ion yields
	SK&94	3.49-3.52	P,T	KL double excitation; $3d^2$ mixes with $(1s,2p)^{-1}4p^2$ - doublet structure
	BA&95	3.19-3.23	P	average charge state; PIPICO; enhanced higher charge down to 100 eV below 1s IP; virtual 1s states
	HM&95b	3.20-3.22	P	TIY, threshold e-; PIY; 2-step decay ~70% in 4p resonance; comp. to US&91
Ar 1s …	KJ&95	3.21-5.21	P	β (photoioniz.); <230 eV KE 6 significant direct quadrupole; comp. to theory
	MBS95	3.19-3.21	P,T	relative; partial & total IY; PCI, mean ion charge increases 30 eV < Ar 1s IP due

				to lifetime & expt'l resolution; IE jumps 2.7 to 3.8 above edge
	A96	3.1-3.2	T,R	partial P.I. cross-sections
	ABZ96	3.19-3.22	T	comp. to K 1s; nuclear screening affects intensities; I(Ar1s63p) < I(K1s63p)
	ALS96	3.19-3.22	P,T	absolute; Auger-ion coincidence; PCI; cascades
	BA&96	3.1-3.2	P	partial ion yield, pre-edge ioniz. tails to ~60 eV below IP; 2p/1s comp.
	BS96	3.2-3.4	P,R	absolute, partial cross-sect. comp. to total
	KY96	3.1-3.6	P	many electron 'shake' structure
	ADB97	3.1-5	P	filtered white light; (e,ion), (e,e) coinc.; decomposition of Auger cascade
	AL&97	3.1-3.2	P,T	X-ray fluorescence, Auger e- coinc; vacancy cascade; HF calc.; PCI shifts
Au 5p	KC&95	40-120	P,T	dual lasers; ground & ($5d^9 6s^2$)-valence excited Au; RHF calc; Fano profiles
	MSZ96	45-85	P,T	photoion yield; comp. of SR to dual laser plasma; Fano resonances
Au 4f	KC&95	40-120	P,T	dual lasers; ground & ($5d^9 6s^2$)-valence excited Au; RHF calc; Fano profiles
B 1s	LC&92b	190-220	P	laser generated; laser plasma X-rays, comp. of B I & II; DF calc.
	BPS97	190-200	T	shake-up/off is 30% of total PI; ioniz. only
Ba 4d	CM64b	90-140	P	photographic, continuum res.
	CM74	60-1200	P	photographic
	CT&74	80-160	P,T	compared to theory, continuum res.
	EL&74	80-160	P	continuum res., Rydberg analysis IP (98.3, 101.0)
	LW74	95-110	T	ab initio calculation, continuum res.
	PRW74	80-160	P,T	gas-solid comparison, compared to theory
	RRW74	90-140	P	gas-solid comparison
	EL&75	90-105	P	Rydberg analysis IP (98.25, 101.02)
	HFK75	90-105	T	alternate assignment of EL&75, ab initio calculation
	W75	85-160	T	ab initio calculation, continuum res., comp. to expt.(RRW74)
	W76	90-110	T	ab initio calculation, location of $4d_9 4f^1$ level
	C78	90-140	P,R	review, continuum res.
	WS78	90-110	T	ab initio calculation, continuum res.
	ZS80	90-140	T	absolute, time-dependent density functional theory
	HL81	95-135	P	absolute continuum X-section, normalized to theory (ZS80), sol. spectrum
	LM&81	85-150	P	collapse of d->f continuum res. in Ba Ba^+ Ba^{2+} series, absolute
	C82a	90-140	T	collapse of 4d->4f continuum res. in Ba, Ba^+, Ba^{2+} series
	CM82	90-140	T	ab initio, potential barrier, relativistic effects, (Ba, Ba^+, Ba^{2+})
	KCN82	90-140	T	absolute X-section, Ba and Ba^{2+}, compared to expt (HL81)
	NSZ82	80-180	T	absolute cross-section, Ba, Ba^+ Ba^{2+}, density functional method
	C83	90-155	T	quantum defect theory calc., compared to expt (LM&81)
	CF83	60-220	T	4d->f (Xe, Cs^+, Ba^{2+} etc), comp. to (LM81),cent. barr.; 4f collapse
	C84	60-220	T	res. width/energy relation
	BC&86	40-140	P,T	absolute, excitation of Ba*($6s6p\,^1P$), compared to LDRA theory
	BC&89	116-180	P	absolute, partial PI, comp. to theory
	HB&89	100-150	P	laser plasma, Ba^{2+}, 4f res., 4f partially collapsed
	NI&89	90-210	P	part. & tot. IY; comp. to Cs; calc.; cascade scheme; strong mult. ion.
	RM&89a	90-140	P	absolute, total and partial, comp. to theory
	RM&89b	100-150	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd
	AC&90	100-150	T	RPAE, similar extend of single and double PI, comp to expt [HL81]
	KR&90	95-150	T	absolute, various approx.; comp. to expt.
	NY&90	60-220	P	total and partial ion yield; comp. across RE series
	R90	0-300	T	absolute; ion (1^+, 2^+); absorption; comp of Ba 4d, Xe4d, Kr3d
	SZ92	80-160	R	absolute; comp. to Ba II; calc; review
	PN&93	80-180	P	absolute; comp. of atomic and BaC_{60} - inside cage; EXAFS
	KWM93	40-1000	T	RPA(E) cacl. of σ, BR and β for all alkaline earths
	BC94	80-160	R	collapse of giant resonances in Ba, Ba^+, Ba^{2+} spectra
Ba4d . . .	BF&95c	80-140	P,T	absolute; laser plasma; comp. to ZS80, AC&90, KR&90
	KI&95a	90-140	P	photoabsorption and PI of ions; Ba^{2+}, Ba^{3+} yields

	R95	80-160	P,R	comp. of Ba, Ba^{+}, Ba^{++}; 4d collapse
	KA&96c	90-140	P	partial ion yields; comp. of Xe, Ba, Eu 4d
	KCM96	90-140	P,R	comp. of Ba, Ba^{+}, Ba^{++}; laser plasma
	BT97	90-150	T	absolute; MC-Dirac-Fock; comp. to expt.; only ion final states
	W01	80-160	P,R	review of atom and ion photoionization
	KA&02a	40-160	P	absolute, Ba^{+}, Ba^{++} PIY; 4f collapse maaped; isonuclear identical; Σ(OOS) ~10 suggests little cross-shell correlation
Ba 3d	CM74b	60-1200	P	photographic
	SN&84	770-810	P	relative, collapse of f-continuum, compared to theory
	KWM93	40-1000	T	RPA(E) cacl. of σ, BR and β for all alkaline earths
	AI&99	780-815	P,T	relative, TIY, 4f collapse; HF-calc; comp of Xe, Cs, BaBa 2p
	KM&84	5.2,5.6	P,T	heat pipe atomic vapour, IP(L3)=5256; (L2)=5633
Ba 2s	KM&84	6.0	P,T	heat pipe atomic vapour, IP(L1)=5998, natural line width = 1.9eV
Be 1s	ME74	110-140	P	photographic, Rydberg analysis IP (123.345), autoionization of Be I,II
	AC&76	130-320	T	ab initio calculation, continuum shape
	KC87a	120-145	P	Auger yield, strong shake-up satellites, partial X-sect., comp to solid
	KC87b	120-200	P	total and partial yields, relative, de-excitation (AI)
	K88	120-144	P	relative; 2e- (KL) transitions; strong threshold resonance
	C90	100-120	T	resonant decay of (1s,2p), comp. to Ne-like series
	CF&90	106	P	AI decay of (1s,2p); spectator dominates
	VS&92	120-145	T	absolute, R-matrix, comp. to expt. (KC87a,b)
	KWM93	40-1000	T	RPA(E) cacl. of σ, BR and β for all alkaline earths
	BPQ97	20-125	T	Be^{+}; absolute; R-matrix; e- and hν impact cross-sections
	LHC02	25-122	T	absolute; $\Gamma(B\varepsilon 1\sigma^{-1})$ =36.6 eV; comp. to expt.
Br 3d	MP81	63-66	P	photographic, 3d-->4p, 3 lines, Fano parameters
	NM91	62-83	P	relative, total ion yield, laser diss. of IBr; 0.118 eV fwhm
	NMC92	64-66	P	total ion yield, laser dis.. Br_2, 50 meV fwhm
	CS96	50-800	P,T	Br, Br^{+}, Br^{++}; dual laser plasma; ab initio MC-HF calc; 3d 6f resonances
C 1s	RM79	300-1000	T	absolute: K-shell absorption X-sec. for many astrophysical species
	JNT87	250-480	P	C^{4+}, soft X-ray plasma source and sample generator
	JNT90	260-480	P	C^{I}, C^{II}, C^{III}, C^{V}, soft X-ray source & sample; strong Ryd.&cont.; like CH_4
	GJ91	297.4	T	IP,; f calc of common interstellar elements; KL structure
	HK&92	275-500	P	laser-ionized; laser continuum source; C^{2+}, C^{3+}, C^{4+} spectra identified
	TG&93	300-500	P,T	C^{2+} (C II); absolute; laser generated ion and light source; comp. to Cowan HF calc.; strong discrete lines
	JN&95	300-600	P	absolute; dual lasers; C^{III}, C^{IV}, C^{V} lines; C^{IV} PI X-sect; comp. to RM79
	MBH97	300-500	T	absolute PI for C(IV); comp to JN&95
	W01	280-480	P,R	review of atom and ion photoionization
Ca 3p	SH&85	30-35	P	Ca^{+}, Ca^{2+} yields at 3p threshold
	BG&87	40-150	P	absolute, partial X-sections, comp. to theory
	CBS87	30- 40	P	revised assignments, MCQD theory
	SZ92	30-40	R	Ca^{+}, partial cross-section
	KWM93	40-1000	T	RPA(E) cacl. of σ, BR and β for all alkaline earths
	GA&97	30-400	T	partial PI for 3p resonances in 3d-excited Ca^{+}
	HH99	25-40	T	absolute; ab initio CI; compare to GA&97; core-core correlation needed
Ca 2p	M76a	100-1200	P	photographic
	MR&89	342-368	P	partial 3p (CIS), matches absorption, DES, breakdown of spectator model
	KK&92	348-368	P	relative, oven, photoion yield, comp. of (Ca,K,Mn,Fe)
	MH&92a	330-550	P	partial Ca^{+}, Ca^{2+}, Ca^{3+} yields; cascade Auger from shake-up/off
	OH&02	345-360	P	TIY, PIY, resonant PES, configuration mixing
Ca 1s	AL&93	4.03-4.06	P,T	absolute; strong 1s 6 3p white line; LSD-HF-CI calc.
	KM&02	100-2000	T	absolute, realxation effects; comp. of Ca, Mg, Sr
	MY&02b	8.0-35.0	P	inter-shell effects from X-ray emission; comp. of Ca, Ti, V K-shell

Cd 3d	CM&72	390-420	P,T	photographic, compared to theory
	CMT74	400-730	P,T	photographic, continuum res.
	CM77a	400-730	P	photographic, correction to CMT74 theory comparison
	C84	400-700	T	res. width/energy relation
Cd 4d	CHW78	30-250	P,T	absolute, continuum res., compared to theory
	BA&94	30-100	P	high resolution; Ryd. series and interchannel coupling identified
Ce 4d	WB&76	100-150	P	gas-solid comparison, continuum res.
	ZS80	110-134	T	ab initio calculation, continuum res., compared to expt (WB&76)
	MP&86	100-150	P	relative, partial X-sect, comp to theory (ZS80)
	RM&89a	100-160	P	absolute, total and partial, comp to theory
Ce 4d . . .	RM&89b	100-150	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	HZ96	90-150	P,R	relative, partial & total ion yields; review ion yield spect. of atoms
Ce 3d	TL&85	870-930	P,T	electron yield (solid), comp to multiplet calc, full RE series
Ce 2p	MST83	5.73,6.17	P	L3,L2, gas-solid comparison, (atom - metal)shift = 2.6(3)
	AM&90	5.7-6.4	P	gas-sol. comp.; comp of 2p spectra of Ce, Er, Gd, Sm, Yb
Ce 2s	MST83	6.56	P	gas-solid comparison, (atom - metal)shift = 5.3(6)
Cl 2p	CK&98a	202-212	P,T	TIY; high res. (20 meV); 16-22 meV natural linewidths; Slater-Condon calc
	CK&99	198-212	P,T	TIY; discharge in HCl; HF-CI; intermediate coupling; 21 meV fwhm; Γ = 16 meV – much less than expected (85 meV from KO79 – empirical)
	M01	202-212	T	relativistic CI; absolute, Rydberg excitations
Cl 1s	MI80	2.81-2.88	T	calculation of structured near edge continuum shape in atoms (8<Z<30)
Co 3p	DF76	50-90	T	interference lineshape, multiplet effects, compared to solid
	BSW79	50-90	P	photographic, gas-solid comparison
	MP&86	50-70	P	relative, comp. to other TM 3p spectra
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	FF&96	54-57	P,T	absolute; total and partial (Co^{++}, Co^{+}) yields; initial state CI
	HZ96	40-60	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI
	W01	45-65	P,R	review of atom and ion photoionization
Cr 3p	DF76	30-80	T	interference lineshape, multiplet effects, compared to solid
	M77	30-70	P	photographic
	BS&82	30-70	P	absolute, Rydberg analysis IP's (P(9/2:7/2:5/2) = 46.365,46.725,47.050)
	ADI83	30-70	T	ab initio (RPAE), total 3d X-section
	MP&86	38-60	P	relative, comp. to other TM 3p spectra, partial X-sect, comp calc [ADI83]
	CC&89	42-48	P	comp to Mn, Mn^{+}; Ryd. series plus discrete 3p63d res., Ryd. intensity from R-V mixing; IP's; 30 meV fwhm res.
	CK&91a	40-70	P	laser-plasma, relative, Cr vs. Cr^{+}, comp. to metallic and molecular solids
	CM&91	40-70	P,R	laser-plasma, comp to Cr^{+}
	SZ92	30-80	R	comp. of 3p edges of 3d-transition metal atoms
	D93b	40-100	T	absolute; comp. to (MP&86); Ryd/3p6nd mixing affects decay dynamics
	DB&96	39-42	P,T	laser aligned ground state; linear dichroism up to 30% in discrete 3p 6 d res.
	HZ96	40-60	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI
	KC&99	40-65	P,T	dual laser plasma, multiplets
	MM&99a	35-65	P,T	absolute; laser plama Cr^{+}; metastable excitation line detected by comp. to HF calc
	MM&00	35-70	P,T	laser plama Cr^{++}; HF calc; time-resolved
	CM&01	60-160	P,T	relative; laser plama Cr^{++}; HF calc;
	CS&01	64-130	P,T	relative; laser plama Cr^{++}, Cr^{3+}, Cr^{4+}; discrete lines; giant resonance colapse
Cr 2p	AI&95	570-590	P,T	total ion yield, HF calc
Cr 1s	AL&93	5.98-6.01	P,T	absolute; strong white line; LSD-HF-CI calc.
Cs 4d	RS74	78-92	P	compared to theory
	PR&75	75-180	P	photographic, continuum res. compared to theory, (4d+5p) excitations
	C78	75-180	P,R	review, continuum res.
	C82b	75-180	T	intermediate valence modelled by 4d->4f excitation, pot. barrier effects

	PR&86	50-130	P	absolute total & partial yields, collective d-->f, satellite X-sections
	HB&89	100-150	P	laser plasma, Cs^+, 4f res. collapse
	NI&89	70-190	P	partial & total ion yield; comp. to abs., calc., Ba4d; cascade decay scheme
	NY&90	60-220	P	total and partial ion yield; comp. across RE series
	CS97	80-150	P,T	relative; photographic; dual plasma; ab initio calc.; comp. to Ba^{2-} ... La^{3+}
	KA&02a	40-160	P	absolute, Cs^+ PIY; 4f collapse maaped; isonuclear identical; Σ(OOS) ~10 suggests little cross-shell correlation
	AI&99	780-815	P,T	relative, TIY, 4f collapse; HF-calc; comp of Xe, Cs, Ba
Cs 4p	PR&75	158-180	P	photographic, Rydberg structure
Cs 3d	CM76a	700-850	P	photographic, continuum res.
	SN&84	730-760	P	relative, collapse of f-continuum, compared to theory
	AI&99	725-760	P,T	relative, TIY, 4f collapse; HF-calc; comp of Xe, Cs, Ba
Cu 3p	BSW79	50-90	P	photographic, gas-solid comparison
	DF81	70-90	T	Fano line-shape effects, compared to experiment (BSW79)
	C82c	35-90	T	partial and total X-sect, comp to Xe 3d, La 3p
	C86	35-90	T	R-matrix CI, partial & total X-sect, comp to (BSW79), 3p63d ang. dist.
	DS&91	40-130	P,T	state-selective decay; $V6Cu^+$, Ryd 6 Cu^{2+}
	SZ92	60-85	R	comp. of 3p edges of 3d-transition metal atoms
	VD&98	60-95	T	absolute; comp. to BSW79; R-matrix
	VW&00	68-90	P	relative; CIS resonant photoemission; Rdydberg series; comp to theory
Cu 2p	AI&94	925-975	P,T	absolute; TIY and abs. very similar; HF (Cowan) calc; comp. to Cu(sol)
Cu 1s	SZ92	8.97-8.99	R	relative, comp. to solid.
	AL&93	8.97-8.99	P,T	absolute; strong white line; LSD-HF-CI calc.
Dy 4d	DF&89	80-180	P,T	absolute, partial ion X-sections; comp. to calc.
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	HZ96	80-180	P,R	relative; 4d excitation; partial ion yields; comp. to TDLDA calc.
Dy 3d	TL&85	1.28-1.34	P,T	electron yield (solid), comp to multiplet calc, full RE series
Er 4d	BK&93	140-200	P,T	relative; total and partial ion yields; comp. of Er, Ho, Tm; HF calc
Er 3d	TL&85	1.40-1.45	P,T	electron yield (solid), comp to multiplet calc, full RE series
Er 2p	MST83	6.98,7.62	P	L23, gas-solid comparison, (atom - metal)shift = 3.7(3)
	AM&90	7.0-8.0	P	gas-sol. comp.; comp of 2p spectra of Ce, Er, Gd, Sm, Yb
Er 2s	MST83	8.06	P	gas-solid comparison, (atom - metal)shift = 3.6(7)
Eu 4d	MC76	41-310	P,T	photographic, continuum res., compared to theory
	C84	50-300	T	res. width/energy relation
	BK&86	120-200	P	total and partial yield, compared to calc [C84] and 3d
	PCK87	110-200	T	partial and total yields, 4d6εf res.
	NY&90	60-220	P	total and partial ion yield; comp. across RE series
	PCK&91	100-200	T	partial & total yield; MBPT; 4d6εf reson.; comp. to expt (BK&86)
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	KA&94	120-145	P	partial AI yields at giant res.; differ from direct ioniz. Auger; comp. of Eu,Sm
	BS96	110-160	P,R	absolute, partial cross-sect. comp. to total
	KA&96c	110-140	P	partial ion yields; comp. of Xe, Ba, Eu 4d
	KSP96	110-160	P,T	(e,ion) coinc. predicted; vacancy cascades; 4d 6 4f forbidden decay
	LG&96	132-148	P	partial PI X-sect.; (Eu^{2+}- Eu^{4+}) true PEPICO - ions & PE (TOF-CMA)
	SS&97	125-150	E	relative; excitation and e- emission spectra; 300 & 173 eV impact; 4d giant res.
	KO&98	110-160	P	Eu^+ ionized by SR; partial ion yild spectra; 4d6εf res.
	TK&00	120-160	T	spin-dependent density functional (TDLSDA); spin down broad; spin-up sharp
	TK&01	110-160	T	Eu^0, Eu^+ cross-sections; DFT
	SW&02	133-152	P, T	linear dichroism by electron analysis, HF-CI, LS coupling model; comp. to Gd(s)
Eu 3d	TL&85	1.12-1.16	P,T	electron yield (solid), comp to multiplet calc, full RE series
	BK&86	1.10-1.18	P	total and partial yield, strong cross-channel coupling, orbital collapse
	RM&89b	120-180	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd
F 1s	SK&90	677	P	atomic FL of ($\underline{1s}$, $2p^6$)^{2}S from HF; ultrafast decay

	KNS90	670-820	T	calc. of KL ioniz. in F.; strong 2e- complication to F-K EXAFS
Fe 3p	DF76	50-90	T	interference lineshape, multiplet effects, compared to solid
	BSW77	50-90	P	photographic, gas-solid comparison
	BSW79	50-90	P	photographic, gas-solid comparison
	N79	50-90	T	ab initio calculation, compared to experiment (BSW77)
	MP+86	40-80	P	relative, comp to other TM (3p), partial X-sect, Fano fit
	TLP90	50-700	T	partial X-sect. for Fe^{n+}, n=0 to 13; evolution of 3p63d res.
	SZ92	30-80	R	comp. of 3p edges of 3d-transition metal atoms
	FF&96	50-70	P,T	absolute; total and partial (Fe^{++}, Fe^{+}) yields; initial state CI
	HZ96	50-70	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI.
	L98a	45-65	T	absolute; rel. TD local spin; comp. to expt; circular pol. response predicted
	BB01a	30-75	T	absolute; Fe^{+}, Fe^{++} ionization/absorption; R-matrix
	KK&02	30-180	P	absolute; Fe^{+} ionization/absorption; comp. to BB01
	WW&02	47-68	P	relative, partial PE cross-sections; 3d giant resonances
Fe 2p	KK&92	701-725	P	relative, oven, photoion yield, comp. of (Ca,K,Mn,Fe)
	B00a	701-720	T	absolue; R-matrix; electron impact cross-section for Fe^{15+} (plasma)
	B00b	0.02-10 kV	T	absolue; R-matrix; threshold structure in EI cross-sections
	BB01b	100-1300	T	absolute; FeIII, FeVIII ionization/absorption; R-matrix
	BBB01	0.5-10 kV	T	absolute; Li-like, Be-like Fe; modelling for Chandra
Fe 1s	GJ91	7123.6	T	IP,; f calc of common interstellar elements; KL structure
Ga3d	CJKJ88	20-100	P	partial PI cross sections; β's; Cooper minimum
	KCF83	19-22	P	decay of 3d→3p resonance; CIS PES
Gd 4d	CP84	120-200	P	4d-->f continuum res., fit to C84 lineshape, compared to GdF_3
	RM&89b	130-160	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd; AI (DES)
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
Gd 3d	TL&85	1.14-1.22	P,T	electron yield (solid), comp to multiplet calc, full RE series
Gd 2p	MST83	7.25,7.94	P	L3,L2; gas-solid comparison, (atom - metal)shift = 2.8(3); 2.9(3)
	AM&90	7.0-8.2	P	gas-sol. comp.; comp of 2p spectra of Ce, Er, Gd, Sm, Yb
Gd 2s	MST83	8.06	P	gas-solid comparison, (atom - metal)shift = 4.7(4)
Hf 4p	GBP82	>380	T	inner-shell excitation contributions to total cross-section calculated
Hg4f,5s	CM73	100-620	P	photographic, transmission maximum around 160eV
Hg 2p	KM&84	12.2,14.2	P,T	heat pipe atomic vapour, IP(L3) = 12292, IP(L2) = 14219
Hg 2s	KM&84	14.8	P,T	heat pipe atomic vapour, IP(L1) = 14849, line width = 6.2eV
Ho 4d	BK&93	130-200	P,T	relative; total and partial ion yields; comp. of Er, Ho, Tm; HF calc
Ho 3d	TL&85	1.34-1.40	P,T	electron yield (solid), comp to multiplet calc, full RE series
I 4d	MPT81	60-120	P	photographic, d-->f res.
	ND&90	45-54	P,T	laser dissociated I_2, strong 4d-65p (^{2}D) res.
	NM91	44-60	P	total ion yield, PES, DES, laser produced I, Br
	NSM91	60-130	P,T	absolute; total & partial X-sect.; laser-generated I atoms; PES; ion KE; centr. barr. effects?; sum rule, N_{eff} <10
	MNN92	44-60	P	laser produced I from I_2; PES, DES
	NMC92	44-60	P	TIY, PES, DES, laser diss. I_2; 4d 6 5d
	SM&96	45-300	P,T	laser plasma; I, I^{+}, I^{++} absorption; MCI-HF calc; 4d 6 f dominates
	AC&00b	40-136	T	absolute, I^0, I^-, I^{++}; RPAE; com to NSM91; x3 deviation = unknown physics ?
	KA&00	40-140	P	absolute; I^{+}, I^{++}' PIY; giant resonances
	W01	50-120	P,R	review of atom and ion photoionization
	AC&02	40-150	T	absolute; I^0, I^{+}, I^{++} excitaiton; GRPAE, comp. to KA&00
I 4d …	DT02	60-130	T	absolute; I^0, I^{+}, I^{++} excitaiton; DFT, comp. to KA&00
	KA&02a	40-160	P	absolute, I^-, I^{+}, I^{++} PIY; 4f collapse maaped; isonuclear identical; Σ(OOS) ~10 suggests little cross-shell correlation
In 4d	LOL84	20-240	P,T	abs.; sol.; comp. to I_2(CNS73) Xe(HK&69), 4d Cooper min.; struct. 4d->εf
Ir 5p,4f	MS&97a	40-70	P,T	relative; atomic beam; Ir^{+}, Ir^{++} yields; Fano profie
K 2p	M75	270-350	P	photographic

	MH&92	270-400	P	K^+, K^{2+}, K^{3+} yield, cascade Auger and shake processes
	KK&92	292-315	P	relative, oven, photoion yield, comp. of (Ca,K,Mn,Fe)
	BRK00	296-300	E	metastable state detection; K*
K 1s	BA&95	3.59-3.62	P	multicharge state yields, tail to low E of high charge states - virtual 1s
	ABZ96	3.59-3.62	T	comp. to Ar 1s; nucl. screening changes intensities; I(Ar1s63p) < I(K1s63p)
	PK&01	3.59-3.67	P	realtive, 1s3s3p doubly excited states
Kr 3d	CM64	80-105	P	photographic, Rydberg analysis IP (93.82, 95.04)
	LBZ64	30-620	P	absolute
	LZB64	88- 98	P	photographic
	CM65	60-180	P	photographic
	MC68	30-250	T	ab initio calculation, delayed onset
	AG&69	0-300	E	angular dependence of inelastic scattering, differential cross-section
	HK&69a	90-130	P	absolute, gas-solid comparison
	ZG71	40-300	P,T	review, continuum res.
	CM75a	90-250	P	photographic, absolute
	GM&76	90-95	P	Rydberg structure, no analysis
	CM77a	95-275	P	photographic, correction to CM75a theory comparison
	KT&77	90-96	E	Rydberg analysis IP (93.79, 95.04), Z+1 analogy, <70meV FWHM res.
	EKK78	90-120	P	Auger decay of res. lines
	C84	90-200	T	res. width/energy relation
	HM&84	90-96	P	absolute, total and ion yield spectra, no P.C.I. detected
	AA&86b	90-120	P	energy dependence of Auger and AI spectra
	DSK86	89-95	E	high res. (65 meV), d-->s quadrupole transitions
	AA&87	40-160	P	partial and total PI X-sections, 4s Cooper minimum
	HL&87	90-98	P	threshold PES, shake-off at discrete res.
	LH&87	90-93	P	DES, partial yields at 5p, 6p res., X-sections, βs
	CM&88a	91	P	anisotropy of DES (AI) at 3d63p; parity forbidden transitions
	K88	20-160	P	partial PI X-sections
	AA&89b	91-94	P,T	DES, shake-up intensities
	CM&89	91-94	P	resonant Auger, ang. dist.; comp. of Ar,Kr,Xe
	MLL89	91-94	P	ionic yields, direct double ionis. versus 1- and 2-step autoionisation
	AA&90a	91-94	P,T	DES, shake-up fraction comp. of Ne1s, Ar2p, Kr3d, Xe4d
	BS90	91-94	P,R	DES at 5p Ryd; comp. of Kr, Ne, Ar DES
	HY&90a	80-280	P	ion yield spectra (Kr^{2+},Kr^{3+}, Kr^{4+})
	HY&90b	89-99	P	partial and total ion yields; (ZEKE,ion) coinc; PCI
	MH&90	80-280	P	absolute, partial ion yields, multiple ionis. ratios (Kr^+ - Kr^{4+})
	R90	90-400	T	absolute; ion (1+, 2+); absorption; comp of Ba 4d, Xe4d, Kr3d
	VM&90	91	P	(hv,2e); 2-step autoionization decay of discrete states in Ar, Kr, Xe
	AH&91	90-97	E	near threshold; triplets; PCI shifts; lineshape analysis; comp. to theory
	HM&91a	90-130	P	threshold EY vs. total ion; strong conjugate shake-up
	II&91	>95	E	PCI shift of Auger, comp. of Ar LMM, Kr MNN, Xe NOO
	LM91	88-98	P	absolute; total & partial IYs; 1-(22%) & 2-(57%) step decay; direct DI
	AA&92b	91-94	P	resonant AI; ion branching ratios; comp. of Ar, Kr
	CC&92	80-200	E	absolute; comp. of Ar, Kr, Xe
	CW&92	90-94	P,T	Kr^+,Kr^{2+} resonant PES; spectator shake process; 2-step AI; PCI
	DM&92	90-95	P	high res. (20 meV); SX-700II characterization
Kr 3d . . .	SS92d	44-1300	P	PIY and BR for multi-charge ions of Ne, Ar, Kr, Xe; ΔBR at edges
	TA&92	95-260	P,T	absolute, partial 3d, 4s, 4p X-sect.; β, 5/2:3/2 branch. ratios, MMDF calc
	C93	100-5000	T	X-sect; β; comp. of all rare gases; ang. cor. correct.; dipole breakdown
	AK&94	90-95	P	<20 meV fwhm; instrument test on Rydbergs
	GE&94	90-96	P	4s,4p partial PI yields; 5p resonance dominated; com. to Ar 2p; Fano lineshape
	SS94	80-120	P	BR of multiple PI; Auger; comp. of 2e- ionization of Ne,Ar,Kr,Xe
	A95	91	P,R	resonant Auger; high resolution

	AK&95	80-100	P	SX-700 pgm at MAX performance, 2e4 resolving power
	SK&95c	90-95	P	accurate natural linewidths; partial ion yields
	HZ96	90-95	P,R	relative, partial & total ion yields; review ion yield spect. of atoms
	KAA96	91	P	Auger resonant Raman; line narrowing; influence of finite photon bandwidth; lifetime interference
	SK&96	243-253	P	high res.; 4 meV/eV E-scale comp.; Γ(6p) = 83(1) up to Γ(10p) = 68(8)
	AK&97b	92-94	P	resonant Auger; PCI studied; shake transitions
	KA&97	92-93	P,T	resonant Auger; lifetime interference of 2 channels
	SA97	95	P,R	angle-resolved Auger resonant Raman
	SS98a	90-120	P	charge state PIY; PE-PI coincidence
	BA&01	105-127	P	thresold EY, ion coincidence
	YZ&02	90-110	E	absolute, OOS from EELS
Kr 3p	WM69	150-305	P	photographic, Rydberg analysis IP (215.0)
	HM&86	200-230	P	abs.; tot.& part. IY (to Kr^{4+}); Ryd. series in Kr^{4+}; C-K Auger cascade
	SDM88	220-350	T	absolute; comp. various methods; non-EXAFS, non-Cooper min. osc. in ATOMS
	SW&99	220-230	P	gas-cluster-solid comparison; Rydberg – exciton conversion
	MY&02a	205-235	P	TIY, PIY, threshold yield; PCI; Auger cascade; branching ratios
	CH&01	400-1400	P,T	absolute; 3d, 3p, 3s cross-sect. far above threshold; ang. dist.; channel coupling
Kr 2p	KNY93	1670-1760	T	HF-MC; multi-electron effects at L_3 and L_2 thresholds in Kr 2p and Xe 2p
	SG&95a	1660-1760	P	gas, cluster comparison, 3d exciton in cluster is 0.5 eV above gas
	HT&99	1660-1720	P,T	TIY, threshold ion coinc to Kr^{7+}, PCI (up to 8 eV)
	NI&00	1650-1800	P	TIY, resonant Auger; ang. dist
Kr 2s	C93	100-5000	T	X-sect; β; comp. of all rare gases; ang. cor. correct.; dipole breakdown
Kr 1s	S40	14.1-14.5	P	Rydberg lineshape analysis
	KE75	14.1-15.1	P	absence of extended fine structure (EXAFS)
	HK83	14.1-14.5	P	ion yields for different charge states
	KE&83	14.3-14.4	P	relative, gas-solid (Kr, KrF_2) comp., near-edge shape res. in solid
	MN&84	14.3-14.4	P	relative
	DH86a	14.1-14.6	P	accurate cross-section, compared to calc.
	DH86b	14.3-16.3	P,T	double excitation (1s + 3d,3p,3s,2p,2s)
	BB87	14.2-14.4	P	multiple ionization, partial X-sects simulated by absorption derivative
	YKD90	14.3-14.5	T	absolute; HF-MC; E,f calc; comp to MN&84
	DK92	14.3-15.0	P	multiple excitation
	IN&92	14.3-16.3	P	multiple-excitation; (1s3p), (1s3d), (1s,4p) double; (1s3d4p) triple
	LBB92	14.3-14.7	P	double ionisation continua identified; complication of ME to EXAFS
	SK&93a	14.3-14.8	T	single & multiple excitation; compt to DH86a,b
	HF&00	1.43-1.44	P	relative, PIY, TPEPICO, PCI, cascades
	KA&02b	14.3-14.7	P	absolute; multi-electron thresholds identified
La 4d	H72	110-150	T	ab initio calculation, location of 4f levels
	R77	90-150	P	continuum res., gas-solid comparison
	WS78	110-150	T	ab initio calculation, continuum res.
	R79	95-145	P	compared to solid
	CP&80	95-145	P	compared to metal, LaF_3
	C82c	80-150	T	correlation effects at res.
	HM&87	100-150	P.T	partial and total; 4d6εf giant res.
La 4d . . .	HB&89	100-150	P.T	laser plasma, La^{3+} abs., 4f collapse
	RM&89a	100-160	P	absolute, partial and total, comp. to theory
	RM&89b	100-150	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	KK&95a	90-150	P,T	dual lasers; La^{3+}; 4d 6 4f giant res.; HF-CI calc.
	K96	100-200	P,R	absolute; calc of 4f 6 d resonance
	KMC96	90-150	P,R	laser plamsa; La^{3+}
	SK&96	243-253	P	high res.; Γ(6p)=83(1) up to Γ(10p)=78(8); comp. to SK&82

La 3d	EK&83	820-870	P,T	absorption, XPS (sol.) and multiplet calc. compared
	W84	810-860	T	non-relativistic RPA, non-stat. spin-orbit intensities, cont. res.
	TL&85	820-870	P.T	absorption (sol) comp. to calc.
Li 1s	FN67	55-90	E	metastable lifetimes
	ELM70	50-70	P	photographic, Li_2 lines observed
	CP75	60-80	T	pre-edge structure
	ZBS75	50-70	P	core-excited states from H^+,He^+ ion-impact-excited Auger spectra
	AC&76	60-120	T	absolute, continuum shape
	MW76	60-80	P	photographic
	CP&77	60-80	P	photographic, flash pyrolysis produced Li, Li^+
	CS77	55-70	T	CI calculation of core-excited states, comp. to expt (ELM70, ZBS75)
	ML77	40-120	P	excitation of 2s to 2p excited Li, optically forbidden states
	ME&78	62-72	P	absolute
	SB&78	56-62	P,T	photographic, Z+1 analogy, compared to theory
	B79	40-120	T	ab initio theory, compared to ML77
	RM79	60-120	T	absolute, continuum shape
	GB81	40-120	T	ab initio theory, compared to ML77
	MCS82	70-115	P	absolute, Fano profiles, TRK-sum rule tested, comp. to (CP75,AC&76,RM79)
	SSE82	55-70	T	ab initio, line structure
	S85	60-80	P,R	heat pipe and laser plasma techniques
	DYM87	55-70	T	valence bond, ab initio, comp to LiH
	FL&87	70-100	P	absolute, partial and total X-sect, Fano profile (1s3s3p)
	MM&87	58-65	P	core excitation, decay of laser-valence excited, aligned atoms
	S87	60-63	P,R	comp. of absorption and AI spectra (ML77)
	LBH90	72-200	T	absolute; R-matrix; decay X-sections; comp. to FL&87
	LV&91	60-140	P	partial X-sections, satellite line branching ratios; conjugate shake-up
	S91a	50-75	P,R	angle-resolved autoionis. of laser-aligned-Li
	FM92	50-130	T	absolute, multi-electron processes, general considerations
	L92	50-100	T	R-matrix; complex structure above IP predicted
	SZ92	50-140	R	absolute, comp. to calc., AI resonances (polarised)
	CC94	60-70	T	absolute; CI; 13 ^2P,^2D states predicted;
	CD&96	140-147	P,T	absolute; hollow Li ($1s^0 2p^3$); Fano resonance; R-matrix calcs.
	DC&96	143-154	P,T	PI line; 19 meV resolution; 118 meV natural linewidth
	JC&96	140-144	P,T	absolute; partial X-sect. for $2s^2 2p$ ionization; Li KK double excitation; 'hollow lithium'; R-matrix calc.; resonances in 1s2s and 1s2p Li^+ X-sect.
	KL&96	62-76	P,T	absolute; absorption; Li^+ yields; high res. (<10 meV); compares Rydberg structure at Li^{K+} , Li^{KV++} thresholds; R-matrix calc; window resonances
	KMC96	54-64	P,R	laser plasma; comp of Mg, Al^+, Si^{++}
	VF&96	60-180	T	absolute, photoionization cross-section
	DC&97a	150-175	P,T	Auger decay of hollow Li
	DC&97b	148-153	P,T	absolute; partial X-sections; triply excited states = hollow Li; extended Rydberg series; 2 core-excited electrons are strongly bound, 3rd weakly bound.
	KF&98	140-167	T	29 term R-matrix, hollow lithium (Li $2l2l'$) state; comp. to expt. (DC&97)
	MC&00	60-180	P	relative, dual laser plasma, comp. to theory (VF&96)
	LM01	174-176	T	lineshapes for creating hollow Li^+ ($2s^2$) states
	WBW02	81-83	P	thresold for Li^{++}; Wannier thoery compared
Li^-1s	Z99	55-75	T	absolute, Li^- core excited states
	KA&01	55-70	P	absolute, photodetachment involving $Li^- \rightarrow Li^+(1s^*)$
Mg 2p	N71b	16-62	P	photographic, Rydberg analysis IP's (57.544,57.822)
	EM74	55-70	P,T	photographic, compared to theory, Rydberg analysis
	WCK91	55-60	P	resonant AI; branching ratios
	WTA91	55-60	P	resonant AI; shake and PCI effects
	KH&92	60-130	T,P	RRPA, MBPT calc; ang. dist. for PE, Auger; expt-theory comp.

	KWM93	40-1000	T	RPA(E) calc. of σ, BR and β for all alkaline earths
	MB97	50-100	T	absolute OOS, GOS; HF-CI; Born approx.
	WD&97	140-160	P,T,R	partial cross-sections; R-matrix calculations
Mg 2p . . .	KC&99	95-120	P,T	Mg^{++}, dual laser plasma
	W01	40-160	P,R	review of atom and ion photoionization
Mg 1s	GJ91	1310.6	T	IP,; f calc of common interstellar elements; KL structure
	BD&92	1.3-1.7kV	P	Mg^{7+}-Mg^{10+} K-shell absorption in plasma; X-ray emission
	MB97	1.30-1.31	T	absolute OOS, GOS; HF-CI; Born approx.
	KM&02	100-2000	T	absolute, realxation effects; comp. of Ca, Mg, Sr
Mn 3p	CMM76	40-70	P	photographic, comparison to solid Mn, MnF_2, $MnCl_2$, $MnBr_2$
	DF76	50-90	T	interference lineshape, multiplet effects, compared to solid
	BSW78	40-60	P	photographic, gas-solid comparison
	CGM71	20-85	P,T	photographic, compared to theory
	AIC81	40-70	T	RPAE calculation, compared to experiment (BSW78)
	GB&83	40-100	T	absolute (4s,3d,3p), MBPT, compared to expt (BSW78)
	C84	40-100	T	res. width/energy relation
	SS&85	40-70	P	comparison of absorption (BSW78) with sum of partial cross-sections
	MP&86	40-70	P	relative, comp. to other TM (3p)
	S86	43-63	P	3p,3d, photoabsorption and sum of PES compared
	K88	20-260	P	partial PI X-sections
	CC&89	45-70	P	comp. to Mn^+ and Cr 3p; v. weak Ryd.; strong 3p63d res.; IPs; 30 meV
	JK&89	65-230	P,R	part. X-sect (3p, 3s, 3d); β's; comp. to theory; multiplets; lit. review
	ADM90	47-90	P,T	4s(^{7}S/^{9}S) BR; spin-pol. RPAE; matches expt. (Sonntag unpublished); strong 3p63d, 4s62p coupling
	CK&91a	40-70	P	laser-plasma, relative, Mn, Mn^+, comp. to metal and molecules (sol)
	CM&91	40-70	P	laser-plasma, Cr, Mn, Mn^+ compared
	KY91	45-70	T	absolute, p 6 εd resonance; effect of AI; PCI effect on position & width
	D92b	47-54	T	comp. of Mn^+, Mn^{*+}; spin-resolved X-sections
	SZ92	30-80	R	comp. of 3p edges of 3d-TM atoms; partial X-sect; Mn^{2+}, βs, calc.
	D93a	47-54	T	comp. of Mn^+, Mn^{*+}, Mn; SP-RPAE; (3d+4s) X-sect.
	WK&94	80-120	P	partial 3d/4s and satellite X-sections; 3d giant res. in all channels
	A96	44-70	T	virtual 3p excitations; ratio of spin-up/spin-down 4s X-sect. in3p region
	BS96	44-80	P,R	absolute, partial cross-sect. comp. to total
	CD96	44-60	T	RPAE of 3p64s & 3p63d res.; reversal in PA (4s < 3d) relative to β(3d) (3d < 4s)
	DBH96	32-46	P,T	R-matrix; Mn^+ calcs; comp. to CC&89
	HZ96	35-65	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI.
	K96	40-65	R	absolute; 3p resonances in 3d sub-shell cross-section
	DM98	45-65	T	ab inito; absolute; comp. to CK&91a
	L98a	40-60	T	absolute; rel. TD local spin; comp. to expt; circular pol. response predicted
	W01	45-70	P,R	review of atom and ion photoionization
Mn 2p	AF&92	635-660	P,T	comp. to solid (atomic); HF-calc ($2p^{-1}$, 3d) single config. in int. coupling
	KK&92	633-654	P	relative, oven, photoion yield, comp. of (Ca,K,Mn,Fe)
Mn 1s	SZ92	6.53-6.56	R	relative, comp. to solid Mn
	AL&93	6.53-6.56	P,T	absolute; strong white line; LSD-HF-CI calc.
N 1s	G83	400-2000	T	absolute calculation
	PV87	40-440	T	absolute, compared to N_2, origin of σ* res.
	GJ91	412.4	T	IP,; f calc of common interstellar elements; KL structure
Na 2p	GC&69	20- 90	P	photographic
2s	M70	35-160	T	calc. of levels and continuum cross-sections
	CGM71	20- 90	P	photographic
	WR&72	30-160	P	absolute, gas-solid comp., Na2s structure & calc., comp. to theory (M70)
	CHW77	45-250	P	absolute, compared to theory (M70), expt (WR&72)
	LMS81	65-80	P	Na2s pe-edge and double excitation features, Fano profiles

	AP88	120-260	T	absolute; continuum intensity; large 3s63p shake-up
	CD&90	33-35	P	laser excited Na, (2p,2s) excitation; val. & core excit. independent
	ZB93	45-60	T	CI, uses semi-empirical (Z+1) core potential; autoionization rates, X-ray laser
	TMM94	64-72	T	ab initio CI; comp to WR&72; Fano profiles; AI resonances
	WJ&94	55-250	P,T	X-sect. for (2p,3s) (LV) satellites; direct double ioniz.; MBPT calc.
	R95	50-90	P,R	$\sigma(++)/\sigma(TOT)$ in laser excited Na*
	CV&98	20-400	P,T	absolute; selected total and partial X-sects; PE partial X-sect.
	KC&99	68-82	P,T	dual laser plasma
	W01	44-48	P,R	review of atom and ion photoionization
Na 1s	L79	1.07-1.1	P	photographic, Z+1 analogy
	TLE82	1.07-1.1	P	1s63p line width = 0.30(5) eV
	STB83	1.07-1.1	T	semiempirical, comparison to TLE82
	S85	1.07-1.1	P,R	heat pipe and plasma techniques, analysis of TLE82
	YK&86b	1.07-1.08	T	ab initio, double excitation (1s,3pεs; 1s4sεp), comp. to TLE82
	YP&86	1.07-1.08	T	ab initio, comp to TLE82, relaxation and multiplet effects
	Y93	1.07-1.08	T	ab initio, CI; comp. to YP&86; modifies assignments
	TE&00	1.06-1.09	P	relative, compared to Na_n in Ar matrix; Na(s); atom - solid
Nd 4d	RM&89b	100-150	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	GG&98	100-160	P	relative, partial PI cross-sections; shape resonances in Pr, Nd
Nd 3d	TL&85	0.97-1.02	P,T	electron yield (solid), comp to multiplet calc, full RE series
Ne 2s	DM&92	45-49	P	high resolution (55 meV)
Ne 1s	B18	870	P	photographic
	B54	863-871	P	photographic, Rydberg analysis IP (870.79)
	L65	866-876	P	Ni L emission as source
	W65	1.5-6.2	P	photographic, absolute
	W70	862-878	P	photographic, Rydberg analysis IP (870.2)
	W71	860-880	P	photographic, Rydberg analysis IP (870.3)
	WK74	100-2000	E,T	absolute, partial X-sections, comp. to calc.
	DK75	865-870	T	ab initio calculation, compared to experiment (B18, L65)
	SD&79	865-895	T	absolute, comp. to expt. (L65)
	B80	860-878	P,R	review, (W70 data)
	HB80c	863-878	E	Rydberg analysis IP (870.1), dipole forbidden transitions
	BQB81	865-872	P	ab initio calculation, compared to experiment (HB80c, W70)
	BD&82	863-878	E,R	dipole forbidden transitions, calibration (3p=867.23 eV)
	AVZ82b	532-540	P	comparison of H_2O, NH_3, CH_4, Ne isoelectronic sequence
	EG&83	865-915	P	(1s,3p) line width 0.30(4)eV, 1s,2p double excit. Rydberg IP (870.28)
	LDR83	0-3 keV	E	Compton profile (Eo = 25keV, 7^o and 17^o spectra shown)
	KS84	865-874	P	partial Auger (AI) yields; βs
	SB84	867.13(7)	E	calibration standard (1s->3p)
	KYP87	860-910	T	absolute; HF-MC; E,f calc; comp to (EG&83); KL excit.
	K88	100-2000	P	absolute; partial X-sect (from WK74)
	V88	860-900	T	absolute; shake-off cross-sects, comp. to XPS (PR 140 (1965) 1057)
Ne 1s …	AA&89a	857,865	P,T	DES, comp. to calc. of Auger, AI
	LWP89	0.78-1.78	P	absolute; comp. to expt (W71); CI; enhanced near threshold; dynamic screening
	AA&90	870	P,T	DES, shake-up fraction comp. of Ne1s, Ar2p, Kr3d, Xe4d
	BS90	865-915	P,R	relative (from EG&83); DES at 3p; comp. of Kr, Ne, Ar
	H90	860-900	E,R	absolute, comp. of Ne, NH_3, N_2H_4, N_2 ; Ryd. vs. valence
	ST90	0-3000	E	absolute, double diff. (angle, E_0), X-sect (Bethe surface); Auger-loss coinc.
	GJ91	869.4	T	IP,; f calc of common interstellar elements; KL structure
	HF91	864-1200	P	comp. of gas-sol.; (unanalysed) EXAFS strong in solid; 1.2 eV exciton shift
	DM&92	865-872	P	high res. (70 meV); SX-700II characterization
	HM&92b	862-875	P	threshold e-; I(4p)>I(3p) interpreted as 2-stop vs. shakeoff

	S92	855-895	E,P,R	comp to NH_n series
	SI&92	860-980	P,T	gas,solid, theory comp.; Ne_{87} cluster gives good match to solid spectrum
	SS92a	810-1340	P	Ne^{x+} partial ion yields
	SS92d	44-1300	P	PIY and BR for multi-charge ions of Ne, Ar, Kr, Xe; ΔBR at edges
	YM&92	865-871	P	220 meV fwhm; instrument paper
	ZKP92	0-1600	T	anomalous scattering factor exhibits Rydberg resonances
	SI&93	860-980	P,T	gas (W65), solid comp; identification of 2e- processes; 3p (1.2eV), 4p (0.8 eV) excitons shifted lower in sol. relative to gas
	TK&93	865-871	P,T	relative; treats unresolved Ryds as quasi-continuum; 6p~IP= 869.75(2) eV
	FB&94	865-871	P	comparison of atom, Ne_n (25-3000) clusters and solid
	LB&94b	865-870	P	270 mV fwhm (1st), 195 mV fwhm (2nd order); 220 meV nat. linewidth
	SS94	860-900	P	BR of multiple PI; Auger; comp. of 2e- ionization of Ne,Ar,Kr,Xe
	BM&95	866-880	P	HERMON at SRC; 1e5 resolving power
	CC&95	860-875	P	SGM at SRBC performance test; high resolution
	HM&95a	865-871	P	PIY, Auger-ion coincidence; 2-step channels identified
	QO&95	865-871	P	Elettra; high resolution (190 meV estimated); natural LW of 310 meV
	RN&96	865-870	P,T	TIY, autoionization; electronic-state-lifetime intereference; 1-step model
	JA&97	865-872	E,T	relative, 130 meV fwhm based on observed width of 250 meV
	MSB97	865-872	P	TIY, PIY, branching ratio in 3p resonance; small PCI
	RL&97	865-870	P,T	relative; TIY; {excitation, emission} interfere; RIXS; Stokes doubling in 3p DES
	CA&99	846-871	P,T	100 meV fwhm; 3p line 270 meV; Fano lineshapes
	SA&99	860-900	E,T	absolute, GOS (2.5 keV,2.4 – 24^o); double excitation; Bethe theory, CI
	G00	865-871	P,T	absolute, close-coupled with optical potential to treat spectrator Auger
	SP&00	865-871	P	SB7 LURE beamline tests; $\Delta E/E > 8500$; 280 meV fwhm
	SY&00	870	P	resonant Auger Raman at 1s $\rightarrow$3p; 100 meV fwhm; β
	SO&01	870	P	sub-natural linewidths by resonant Auger
	FS&02	865-872	P	high res. (66 meV); Fano profile; interchannel interference
	KY&02	852-873	P,T	relative, N^{4+} from Ne^{3+}; MCDF calculation
	NH02	840-1050	T	absolute; double core excitation/ionization – shake-up/off
	YO&02	840-880	P,T	relative; Ne^{x+} (x=1-3) ion photoionization; MC-Dirac-Fock gets E right
Ni 3p	DF76	60-100	T	interference lineshape, multiplet effects, compared to solid
	BSW79	50-90	P	photographic, gas-solid comparison
	CB80	60-100	T	R-matrix, coupled channel
	FB80	35-200	T	R-matrix, CI, partial and total X-sect, compared to BSW79
	D86a	60-100	T	summary of TM calc by Davis and Feldkamp
	MP&86	60-100	P	relative, comp. to TM (3p), partial X-sect, Fano fit, comp. to [CB80,D86]
	SZ92	30-80	R	comp. of 3p edges of 3d-TM atoms, rel. part. X-sect.; comp. to calc.
	C93	100-5000	T	X-sect; β; comp. of all rare gases; ang. cor. correct.; dipole breakdown
	FF&96	54-82	P,T	absolute; total and partial (Ni^{++}, Ni^{+}) yields; initial state CI
	HZ96	60-80	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI.
O 1s	SG82	530-1200	T	absolute calc. 1s->2p res. claimed at edge, compared to expt(BB&79)
	GJ91	500-700	T	absolute; IP,; E_{th}, f calc of common interstellar elements; KL structure
O 1s . . .	KC&96	525-555	P	ion yield; compound to atom (1s 6 3p at 527.8 eV)
	MB&96	525-560	P,T	high res.; TIY; discharge mix of O_2/O; Γ = 140(9) meV; HF calc.; 1s $\rightarrow \pi^*$ at 527.8(1) eV
	SL&97	525-553	P	PIY (O^+,O^{++}) from O atom; strong 2p line; PCI
	MK98	520-560	T	absolute; R-matrix; comp to SL&97, MB&96
	GM00	520-560	T	absolute; R-matrix; comp to SL&97, MB&96; 1s $\rightarrow$ 2p at 527 eV
	AC&01	525-550	P	relative; XAS and XPS; metastable O atom & molecules
	KY&02	524-540	P,T	relative, O^{++} from O^+; MCDF calculation
	ZY02	526-535	T	absolute; CI, R-matrix; 1s-valence interaction
Pb 4f	CDM76	120-310	P	photographic
Pr 4d	RM&89b	100-150	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd

	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	GG&98b	100-140	P	relative, partial PI cross-sections; shape resonances in Pr, Nd
Pr 3d	TL&85	920-960	P,T	electron yield (solid), comp to multiplet calc, full RE series
Pt 5p,4f	CK&91b	40-90	P	laser plasma generated and source; 5p 6 5d resonances
	SM&94	40-90	P,T	partial PI (Pt^+, Pt^{2+}); TIY; rel-HF; I(5p+4f)/I(5d+6s) related to Pt^{2+}/Pt^+ ratio
Rb 3d,3p	MC75a	120-280	P	photographic
	KH&87	112-125	P	total and partial ion yields, no Rb_+, matches absorption (MC75a)
	CM76b	110-280	P	photographic, delayed continuum onset
	CM77a	120-280	P	photographic, correction to MC75a theory comparison
	MJ81	130-150	T	Z+1 analogy, ab initio calculation, analysis of CM76b
	MC82	105-135	T	inadequacy of Z+1 analysis, compared to expt (CM76)
	KH&87	110-150	P	multiple ionization yields, 0.2 shake probability
	AL&88	113	P	resonant Auger (DES), strong spectator signal (Auger shake-up)
	KH&90	110-280	P	multiple ionization yields, 0.2 shake probability
	L98b	110-120	P,T	resonant Auger; MC-DF calc.
Rb 1s	KA&02b	15.2-15.8	P	absolute; multi-electron thresholds identified
Re 5p,4f	MS&97	35-70	P,T	absolute; TIY & PIY; relativistic; fused wire TOF
Rn 1s	T85	98-170	T	relativistic calc., PCI small, no oscillation (cf. MI80)
S 2p	KA&02c	30-200	P	absolute; $S^+ \rightarrow S^{++}$, S^{3+}; x2 deviations with accepted aastrophysics values
S 1s	GJ91	2479.9	T	IP,; f calc of commn interstellar elements; KL structure
Sb 4d	BC94	20-120	P,R	relative; comp. to general. shape for atomic giant res.; comp. to solid, Sb_5
	DC99	30-40	P,T	relative, dual plasma, HF calc; metastable; Sb, Sb^+, Sb^{++}, Sb^{3+}
	AC&00c	30-100	P,T	relative, dual plasma, HF calc; metastable; Sb, Sb^+, Sb^{++}, Sb^{3+}, Sb^{4+}; 4f continuum
Sc 3p	MP&86	30-50	P	comp. of 3p edges of 3d-transition metal atoms
	SZ92	30-50	R	comp. of 3p edges of 3d-transition metal atoms, rel. partial X-sections
	HZ96	30-50	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI.
	KS98	50-70	P,T	Si^{3+}; dual laser plasma; RPAE calc.
	W01	28-48	P	absolute; dual plasma
	WK&01	29-40	P	CIS PES, relative PI cross sections
	M02	28-45	T	absolute; CI, strong coorelation effects; compare to W01
	SM&02b	28-45	P,T	absolute; $Sc^{++} \rightarrow Sc^{+++}$; test of micrscopic reversibility
Sc 2p	RO&01	397-410	P,T	relative, TIY, PIY, HF calculation agrees
	RO&03	397-410	P	relative, partial ion yields; photoelectron spectra – DES
Si 2p	PVZ82	100-140	T	multiple scattering calc. of continuum shape, compared to SiH_4, SiF_4
	SK&95a	105-140	P,T	(Si^{2+}); dual plasma; HF-CI calc.
	KMC96	110-140	P,R	laser plasma; comp of Mg, Al^+, Si^{++}
	CK&98a	93-113	P,T	relative; dual laser plasma; absorption from metastable Si^{*+}, Si^{2+}; HF calc
	CK&98b	105-190	P, T	Si^+ ; dual laser plasma; ab initio calc.; comp. to Al
	KC&99	100-130	P,T	dual laser plasma
	W01	143-165	P,R	Si^+ excitation; review of atom and ion photoionization
Si 1s	GJ91	1848.6	T	IP,; f calc of common interstellar elements; KL structure
Sm 4d	R77	120-160	P	gas-solid comparison
	PR&86	120-160	P	absolute total and partial X-sections (4f,4d,5p), collective res.
	RM&89b	110-170	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd
	NY&90	60-220	P	total and partial ion yield; comp. across RE series
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
	KA&94	115-140	P	partial AI yields at giant res.; differ from direct ioniz. Auger; comp. of Eu,Sm
	LG&96	124-144	P	partial PI X-sect.; (Sm^{2+}- Sm^{4+}) true PEPICO - ions & PE (TOF-CMA)
Sm 3d	TL&85	1.02-1.12	P,T	electron yield (solid), comp to multiplet calc, full RE series
	SB&91	1060-1120	P,T	relative, gas-sol; theory (Dirac-Fock); intermediate-valence; comp of Sm, Tm
	BC94	1060-1120	P,R	relative; gas-sol. comp. (SB&91)
Sm 2p	MST83	6.72,7.32	P	L23, gas-solid comparison, (atom - metal)shift = 3.8(3); 3.9(3)

	AM&90	6.5-7.5	P	gas-sol. comp.; comp of 2p spectra of Ce, Er, Gd, Sm, Yb
Sm 2s	MST83	7.74	P	gas-solid comparison, (atom - metal)shift = 2.5(5)
Sn 3d	KPR81	485	T	ab initio, overlap of shape res. & Cooper minimum structure, 10^4 eV > IP
Sr 4p	NW&86	25-32	P	Sr^+, Sr^{2+} yields at threshold
	KWM93	40-1000	T	RPA(E) cacl. of σ, BR and β for all alkaline earths
	JC&93	40-200	P	resonant Auger; cascade processes
	FB&01	38-45	P,T	dipole matrix elements
Sr 3d	MC75b	110-280	P	photographic, delayed onset
	KH&87	130-150	P	multiple ionization yields, 0.2 shake probability
	KH&90	130-280	P	multiple ionization yields, 0.2 shake probability
	KWM93	40-1000	T	RPA(E) cacl. of σ, BR and β for all alkaline earths
	MS&95a	135-300	P,T	dual laser; Sr^0 to Sr^{3+}; HF-CI calc; cont. X-sect. depends on charge
	IK&95b	130-200	P	relative; Sr^+ Sr^2, Sr^3 yields from Sr^+; 3d6εf giant res.; 4d orb. collapse
Sr 3p	KH&87	136-146	P	total and partial ion yields, no Sr_+, matches absorption (MC75a)
	CM77a	110-280	P	photographic, correction to MC75b theory comparison
	MJ81	110-150	T	Z+1 analogy, ab initio calculation
	MC82	135-145	T	inadequacy of Z+1 analogy, compared to expt (MC75a)
	C84	50-300	T	res. width/energy relation
	KWM93	40-1000	T	RPA(E) calc. of σ, BR and β for all alkaline earths
Sr 1s	KM&02	100-2000	T	absolute, realxation effects; comp. of Ca, Mg, Sr
Ta 5p,4f	MS&97	30-50	P,T	absolute; TIY & PIY; relativistic; fused wire TOF
Tb 4d	RM&89b	120-180	P	EY absorption, comparison of Ba..Tb; PES of Sm, Eu, Gd
	SZ92	80-180	R	comp. of rare earth 4d edges; partial X-sections; comp. to calc.
Tb 3d	TL&85	1.23-1.28	P,T	electron yield ($TbAl_2$ (sol)), comp to multiplet calc, full RE series
Te4d	M99	70-102	P,T	Te^{4+}, Te^{5+}, dual plasma source; HF calculations
Ti 3p	MP&86	30-60	P	comp. of 3d transition metal atoms
	SZ92	30-80	R	comp. of 3p edges of 3d-transition metal atoms
	HZ96	35-60	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI.
	KS98	50-100	P,T	Ti^{3+}; dual laser plasma; RPAE calc.
Ti 2p	GBP82	>450	T	inner-shell excitation contributions to total cross-section calculated
Ti 1s	MY&02b	8.0-35.0	P	inter-shell effects from X-ray emission; comp. of Ca, Ti, V K-shell
Th 5d	W84	70-140	T	non-rel. RPA, non-stat. I(S-O), comp. to (J. Phys (Paris) 41 (1980) 603)
	CC&86	70-140	P	laser source & sample; comp. to sol.; ThF_4 (CP&80), calc. (W84)
	CM&91	80-140	P,R	laser-plasma, comp. to ThF_4, solid; review
	BT92	80-120	P,T	relativistic calc, comp. of gas-metal for U, Th
	SZ92	80-140	R	relative (CC&86); comp. to calc.
Tl 4f	CM75b	120-275	P	photographic, continuum res.
Tm 4d	BK&93	140-200	P,T	relative; total and partial ion yields; comp. of Er, Ho, Tm; HF calc
Tm 3d	TL&85	1.46-1.52	P,T	electron yield (solid), comp to multiplet calc, full RE series
	BE&89	1.45-1.47	P	matrix isolated atoms; cluster vs. gas; size effect; multiplet changes as valency changes (initial state effect)
	SB&91	1450-1520	P,T	relative, gas-sol; theory (Dirac-Fock); intermediate-valence; comp of Sm, Tm
U 4f	KPR81	385	T	ab initio, overlap of shape res. & Cooper minimum structure, 10^4 eV > IP
	PC83	110-120	P	photographic, sharp 5d-f above 5d threshold), comp. to solid, UF_4 (CP&80)
U 5d	W84	80-160	T	non-relativistic RPA, non-statistical f(S-O); cont. res., comp. to expt (UF_4-CM&80; U(solid)-Cukier et al. J. Phys (Paris) 39 (1978) L315)
	CC87	70-150	P	relative, plasma continuum, compared to UF_4 (CM&80), U(sol)
	S87	70-145	P,R	comp. of solid, vapor, calc. (CC87)
	BT92	80-120	P,T	relativistic calc, comp. of gas-metal for U, Th
	SZ92	80-120	R	relative; CC87 comp. to calc.
	KG&00	15-150	P,T	relative, total and partial yields (U^+, U^{++} U^{3+}); dual laser plasma
V 1s	MY&02b	8.0-35.0	P	inter-shell effects from X-ray emission; comp. of Ca, Ti, V K-shell
W 5p,4f	CK&91b	30-60	P,T	laser source & generation; 5p 6 5d res.; comp. to MBPT (Boyle, ICPEAC-91)

	SZ92	30-60	R	relative (CK&91b)
	BAK93	30-60	T	MBPT calc.
	SF&95	30-60	P,T	absolute; TIY, PIY; comp. to CK&91b; MBPT calc (BAK93); Fano profile
Xe 4d	C64	60-170	T	absolute, continuum res.
	CM64	60-75	P	photographic, Rydberg analysis IP (67.55, 69.52)
	E64	40-160	P	absolute, continuum res.
	LBZ64	30-620	P	absolute
	LZB64	64- 69	P	photographic
	CM65	60-180	P	photographic
	S66	60-200	R	absolute
	FC68	50-400	R	atomic oscillator strengths review
	MC68	40-1000	T	photographic, compared to experiment (S66), delayed onset
	RF68	50-140	T	ab initio calculation, continuum res.
	AG&69	50-140	E	angular dependence of inelastic scattering, differential cross-section
	HK&69a	60-150	P	absolute, gas-solid comparison
	HK&69b	60-150	P	absolute, gas-solid comparison
	ZG71	70-500	P,R	absolute, continuum res.
	KM72	50-350	P	ab initio calculation, continuum res.
	ABC75	50-140	T	RPAE calculation, continuum res., generalized oscillator strengths
	FTD76	50-140	T,R	electron-optical properties of atomic fields
	WW77	30-200	E	absolute photoionization, post-collision interaction
	KT&77	64-70	E	Rydberg analysis IP (67.55, 69.54), Z+1 analogy, <70meV FWHM res.
	EKK78	64-70	P	Auger decay of res. lines
	S80a	70-130	T,R	review, centrifugal barrier
	S80b	50-350	P,R	ab initio calculation, continuum res.
	C82c	64-70	T	resonant Auger effects in PES, compared to expt (EKK78)
	CF83	60-220	T	4d-f in Xe-like ions, centrifugal barrier, 4f collapse
	SB&83	50-100	P	PCI, autoionization decay (>90%), β values, partial cross-sections
	SK&83	60-80	E	dipole forbidden transitions
	C84	60-100	T	res. width/energy relation
	HM&84	64-70	P	absolute, total electron and ion yield spectra, no P.C.I. detected
	DG85	60-200	T	dispersion (q=0-5 A^{-1}) of d-->εf giant res., 30eV shift, l=1 dominates
	AA&86a	60-140	P	energy dependence of Auger and AI spectra
	BP&86	60-140	P	DES; coupled-channel part. X-sect.; large shake-off at εf res.
	HM&86	138-152	P	absolute, partial & total ion yields; Ryd. series most visible in Xe^{4+}
	SKR86	63-70	E	high res. (65 meV), quadrupole d-->s at low impact E
	BK&87	200-1000	P	absolute partial and total ionisation X-sections; comp. to calc.
	HI&87	64-72	P	threshold PES, shake-off at discrete resonances, PCI
	AKK88	70-150	T	MBPT & relax; comp. to (total, 4d partial); βs; enhanced 2+ at 4d giant res.
	LF&88	150-300	P	4p, 4d part. X-sect; rel; β at Cooper min (185 eV); comp to calc (KM72)
	NML88	64- 72	P,R	partial ion and threshold e- yields; double ionisation via ISE
Xe 4d . . .	BB89	70-140	P	absolute, partial, comp. to BP&86; lower double ioniz.
	BS&89a	64- 70	P	DES, large shake-off; increases with nd Rydberg (6p=30%; 7p=34%)
	BS&89b	40-1000	P	absolute, partial and total PI X-sections, βs
	CM&89	63-65	P	resonant Auger, ang. dist.; comp. of Ar,Kr,Xe
	HB&89	100-150	P	laser plasma, 4f collapse (comparison of Cs^{+}, Ba^{2+}, La^{3+})
	KKS89	70-130	P	absolute, partial 4d PI; comp. to BP&86; smaller many e- contribution
	SD89	140-330	T	RPA, partial X-section and β; comp. to ext. (LF&88)
	AA&90a	66,68	P,T	DES, shake-up fraction comp. of Ne1s, Ar2p, Kr3d, Xe4d
	AC&90	70-150	T	RPAE; comparable single and double ionisation intensity; comp to HK&69
	BS90	65	P,R	DES at 6p Ryd; comp. of Kr, Ne, Ar DES
	HY&90	60-160	P	partial ion yield spectra (Xe^{2+}/Xe^{3+}/Xe^{4+})
	NY&90	60-220	P	total and partial ion yield; comp. across RE series

	OEK90	65,74	P	PEPICO, decay of Ryd. res.; ion kinetic energy dist.
	R90	60-160	T	absolute; comp. of Ba4d, Xe4d, Kr3d; ion (1+, 2+) vs. absorption
	VM&90	65	P	(hv,2e); 2-step AI of discrete states in Ar, Kr, Xe
	AH&91	64-74	E	near threshold excit.; triplets; PCI; lineshapes; comp. to theory
	HM&91a	75-100	P	threshold EY; strong conjugate shake-up
	II&91	>70	E	PCI shift of Auger, comp. of Ar LMM, Kr MNN, Xe NOO
	S91	65-90	P,R	autoionisation of Rydberg res., comp. to Xe 4d
	CC&92	50-200	E	absolute; comp. of Ar, Kr, Xe
	DM&92	64-70	P	high res. (12 meV); SX-700II characterization
	SS92d	44-1300	P	PIY and BR for multi-charge ions of Ne, Ar, Kr, Xe; ΔBR at edges
	WC&92	64-70	P	CIS spectra; Auger-β; near-threshold; ZEKE from 2-step processes
	BY&93	70-200	E	GOS (70-4000 eV impact) resonances; absolute
	PM&93	62-72	E	non-dipole (Eo=83 eV) comp. to dipole (Eo=103 eV); high efficiency magnetic spectrometer; no angular resolution
	PN93	60-140	P	absolute; comp. of atomic and Xe:C_{60} inside cage; EXAFS
	C93	100-5000	T	X-sect; β; comp. of all rare gases; ang. cor. correct.; dipole breakdown
	T93	60-140	E	absolute; GOS (K^2) at 1-2 keV impact
	AA&94	70-160	P	Auger branching ratios; 30% variation above 4d threshold, 2-step model invalid
	SS94	60-100	P	BR of multiple PI; Auger; comp. of 2e- ionization of Ne,Ar,Kr,Xe
	A95	65,67	P,R	resonant Auger; high resolution
	AB&95	100	E	Auger-photoelectron coinc.; ang. dist.; PCI effect in ang. dist. up to 30 eV above IP; EI senses PCI (1-step) even when PI fits 2-step model
	AO&95	75-240	P,T	PE branching ratio; expt.versus calculation; non-statistical in resonance region
	SA&95b	66,68	P	resonant Auger; very high resolution by line narrowing
	SK&95c	90-95	P	accurate natural linewidths as f(n); comp. of Ar, Kr, Xe
	A96	40-500	T,R	absolute cross-sections; comp. to expt.; giant resonance
	AB&96	68-90	E	(e,2e) and (e,e',Auger) coinc.; $4d_{5/2}$:$4d_{3/2}$ BR; PCI; comp. to theory
	BS96	50-1000	P,R	absolute, partial cross-sect. comp. to total; β's
	HZ96	64-70	P,R	relative, partial & total ion yields; comp. of 3d TM element PA and PI.
	KA&96c	60-140	P	partial ion yields; comp. of Xe, Ba, Eu 4d
	LB&96	65.1	P	Auger resonant Raman; line narrowing; βs at 40 meV res. (natural 106 meV)
	SI&96	40-120	P,T	partial ion yields; multiconfiguration Dirac-Fock calc.; 4d 6 np,nf 2e- transitions; larger 4f collapse in 2e- than 1e- states
	SK&96	64-71	P	high res.; 4 meV/eV E-scale comp.; natural widths decrease from 110(1) to 98(8) from 6p to 9p; comp. to SK&82
	AK&97b	65-67	P	resonant Auger; PCI studied; shake transitions
	BL97	65-67	P,R	resonant auger at 6p line; Auger resonant Raman; β values
	LG&98	105-115	P	E-resolved (PE,PI) coinc; 4d 6 εf res.; 'FIRE' = Final Ion-charge Resolved Electron spectroscopy
	SM&98	70-80	P,T	interference effects; Auger, AI; angular distributions
Xe 4d . . .	SS98a	60-90	P	charge state PIY; PE-PI coincidence
	WA&98	50-140	P	relative, εf resonance at similar position in Xe, Xe^+, Xe^{++}
	AH&99	65-190	P	Auger, high resolution; lifetime width varies (110-130 meV)through 4d$\rightarrow\varepsilon$f; PCI
	SL&99	60-200	P,T	spin-resolved Auger, PES; partial X-sect; 2 partial wave OK outside Cooper min
	AC&00a	50-150	T	RPAE, PI for $Xe^+\rightarrow Xe^{++}$; comp to expt
	AA&01	70-140	P,T	absolute; RPAE calc; Xe^+, Xe^{++} excitation & ionization
	BA&01	105-127	P	thresold EY, ion coincidence
	II&01	50-150	P	absolute
	W01	70-130	P,R	review of atom and ion photoionization
	BF&02	40-180	E	absolute, GOS, εf shape resonance has minimum(K^2 = 3au)/maximum(K^2 = 6au)
	KA&02a	40-160	P	absolute, Xe^0, Xe^+, Xe^{++} PIY; 4f collapse maaped; isonuclear identical; Σ(OOS) ~10 suggests little cross-shell correlation
	LS&02	64-76	P,T	TPEPICO; PCI; dynamics of Auger decay via Xe^{++*}

Xe 4p	LZB64	140-146	P	photographic
	C76	140-690	P	photographic, absolute, delayed 4p continuum
	SZ&92	140-150	P	threshold PES
	SW&99	140-150	P	gas-cluster-solid comparison; Rydberg – exciton conversion
	HM&02	138-152	P	relative, PIY, threshold e, ion coincidence; PCI effects
Xe 4s	WM69	150-305	P	photographic, Rydberg analysis IP (211.3)
Xe 3d	D68	670-790	P	absolute, continuum res.
	AI78	670-790	T	ab initio calculation, compared with experiment (D68, C76)
	WM78	50-1000	P.R	absolute total and partial X-sections
	YW83	670-720	P	solid-gas comparison, weak continuum res.
	SN&84	680-720	P	relative, collapse of f-continuum, compared to theory
	ZL84	650-740	T	time-dependent, local density with core-hole relax., comp. to expt (YW73)
	BK&87	650-1000	P	absolute total and partial X-sections
	TLP90	680-760	T	absolute; 3d-X-sect for Xe^{n+}, n=0,1,2; evolution of delayed maximum
	SS92b	650-1250	P	total & partial ion yields, DES and Auger cascades in 3d/3p/3s
	C93	100-5000	T	X-sect; β; comp. of all rare gases; ang. cor. correct.; dipole breakdown
	AI&99	670-715	P,T	relative, TIY, 4f collapse; HF-calc; comp of Xe, Cs, Ba
	KH&00	670-725	P,T	relative, delayed onsets; relaxed HF calc
	SA&01	672-677	P	DES; angular distributions
Xe 2p	AA&80	4.78-4.83	P	Auger yield, large P.C.I. (>leV shift at 3eV above threshold)
	AA&85	4.75-4.83	P	post-collision interaction effects on autoionisation
	KH&89	4.6-6.1	P	absolute; comp. to calc; 2p 6 nd white lines (collapse of 5d to inner-well)
	ZS&91	4.6-6.1	P,T	2e-excit in L_1,L_2 and L_3, del-SCF; effects on EXAFS analysis evaluated
	DGT92	4.75-4.83	P	Rydberg, Z+1 comp.; LN double excit; compt. to KH&89
	KNY93	4.70-5.10	T	HF-MC; multi-electron effects at L_3 and L_2 thresholds in Kr 2p and Xe 2p; comp. to expt. (Tronc, unpub.)
	LM&94	4.78	P	(Auger-ion) coinc at 10 eV above IP
	AK&95b	4.7-6.2	P,T	absolute; multi-electron; LV satellites; MCDF calc
	MS&95b	4.78-4.79	P	X-ray emission at 2p 6 Ryd line; evolution from resonance Raman to XRF
	BA&96	4.75-4.83	P	partial ion yield; pre-edge ionization by ~20 eV
	HM&96	4.77-4.81	P	partial ion yields in coincidence with threshold electrons; PCI; isolation of non-PCI shifted Auger cascades
	AS&97	4.77-4.81	P	Auger resonant Raman; PCI effects
	IV&98	4.5-7.0	P	multi-electron excitation; three electron transitions
Xe 2s	DGT92	5.41-5.50	P	Rydberg, Z+1 comp.; LN double excit; compt. to KH&89
	MH&99	5.44-5.48	P	PIY, ERAMICO, PCI, multi-step Auger; modelled
Xe 1s	T85	34.6	T	0-803V above edge, relativistic calc., PCI small, no osc. (cf. MI80)
	YKD90	34.5-34.6	T	absolute; HF-MC; E,f calc; monopole redist.
	DBK91	34.5-40.0	P	absolute; comp. to theory (T85); relativistic effects on cont. decay
	DK92	34.0-36.0	P	absolute; KN double excitations
	HYP97	34.5-34.6	T	absolute; comp to DBK91; anomalous dispersion; inelastic X-ray scattering
Yb 4d	NY&90	60-220	P	total and partial ion yield; comp. across RE series, very weak!
Yb 3d	TL&85	1.51-1.54	P,T	electron yield (Yb_2O_3(s)), comp to multiplet calc, full RE series; f^{14}
Yb 2p	AM&90	7.0-8.2	P	gas-sol. comp.; comp of 2p spectra of Ce, Er, Gd, Sm, Yb
Zn 3s	CM74a	115-180	P	photographic
Zn 3p	KC&97a	80-120	P,T	relative, dual plasma; Zn^{n+} n=1-3 excitation; HF calculations
Zr 3p	GBP82	>330	T	inner-shell excitation contributions to total cross-section calculated

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Aluminum 2p (80 eV)

AlC_3H_9	NKM90	40-120	P	$Al(CH_3)_3$, ion yield, PEPICO, PIPICO, DDI, selective fragm. at edge
	NK&91	40-120	P	ion yield, BR, PIPICO
$Al_2C3Cl_3H_9$	NK&91	40-120	P	$Al_2(CH_3)_3Cl_3$, ion yield, ion branching ratios, PIPICO

Antimony 4d (35 eV)

Sb_5	BC94	20-120	P,R	relative; comp. to atom, solid; giant resonances review
Sb_n	BB&91	25-120	P	n=4, 7-16; clusters, size dependent giant res., comp. to GaSb(sol)

Argon 2p,2s (250,310 eV)

Ar_n	RS&91	240-268	P	PIPICO, charge sep. in clusters
	RS&92a	248	P	PIPICO diss. of Ar clusters, KERS
	RH&93a	240-400	P	Ar clusters (to n~700); EXAFS, atom6sol
	RH&93d	240-400	P	Ar clusters (to n~700); EXAFS, atom6sol; Ar2p vs. 1s
	KJ&94	240-260	P	comp. of threshold (zeke) of Ar, Ar_n; PCI lineshape analysis
	BF&95b	243-248	P	partial ion yields; comp. of atoms & clusters
Ar_n . . .	RH&95	260	P,R	PEPIPICO; asymmetric charge separation
	BF&96	254	P	Ar2p PES, n=1-4000; atom, surf. bulk. shifts
	HR96	240-300	P,R	Ar clusters, 4s, EXAFS, comp. to BF&95b
	RK&96	240-265	P	TEY, AEY as f(size); ZEKE; PEPIPICO

Argon 1s (3.2 keV)

Ar_n	RH&93c	3.1-3.8	P	comp. of gas, cluster and solid; EXAFS & XANES
	RH&93d	3.1-3.8	P	comp. of gas, cluster and solid; EXAFS & XANES; Ar2p vs. 1s
	KB&97	3.18-3.38	P	XAFS as f(size); 12-2900 ; fcc structure > 200; icosahderal <200

Arsenic 2p (1330,1360 eV)

$AsCl_3$	GDT97	1.31-1.39	P,T	relative; TIY, MS-Xα; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.

Arsenic 1s (11.7 keV)

AsF_3	MB&79	11.8-11.9	P	pot. bar. effects, comp. to AsF_5-doped polyacetylene
	MB&84	11.8-11.9	T	non-relativistic HF, comp. to expt (MB&79)
AsF_5	MB&79	11.8-11.9	P	pot. bar. effects, comp. to AsF_5-doped polyacetylene
	MB&84	11.8-11.9	T	non-relativistic HF, comp. to expt (MB&79)
AsGa	BF&93	11.6-12.3	P	GaAs; EXAFS; in situ monitor of CVD; fluorescence detection

Barium 4d (90 eV)

$Ba:C_{60}$	PN&93	80-180	P	absolute; comp. of atomic and BaC_{60} - inside cage; EXAFS

Berylium 1s (110 eV)

BeH_2	CC&81	110-115	T	ab initio calc.
BeF_2	CC84	122	T	delta SCF, B1s->5σ* 121.6eV, T=1.53eV, dissociative

Bismuth 5d (25 eV)

BiC_3H_9	NS&90	16-42	P	$Bi(Me)_3$, ZEKE, PI yield, BR, comp. of methyl-metal fragmentation (Bi, Ga, Zn, Ge, Sn, Pb)

Boron 1s (190 eV)

BBr_3	II&80	170-280	P	absolute
	II&82	190-280	P,T	absolute, discrete shape res., ab initio calc.
$BClF_2$	HD&92	190-220	P	partial IY; yield spectra distinguish mixed (BCl_xF_{3-x})
BCl_2F	HD&92	190-220	P	partial IY; yield spectra distinguish mixed (BCl_xF_{3-x})
BCl_3	FB70	190-210	P	pressure dependence, pot. bar. effects
	HB71	192-212	P	strong line at 192.44 eV
	NB71	190-210	T	semi-empirical calc.
	BK74	190-210	P	pot. bar. effects
	II&80	190-280	P	absolute
	II&82	190-280	P,T	absolute, discrete shape res., ab initio calc.
	UC&94b	190-208	P	absolute, resonance Auger; spectator & participator at π^*,σ^*
	UT&00	195-199	P,T	TIY, relative, resonant Auger probe of Jahn-Teller coupling
BF_3	F68	190-210	P	pot. bar. effects, comp. to B, BN, B_2O_3 - solids
	FB70	190-210	P	pot. bar. effects
	HB71	192-212	P	absolute, pot. bar. effects
	NB71	190-210	T	semi-empirical calc.
	CP&72	192-210	T	ab initio calc., pot. bar. effects
	D72	190-210	P,R	pot. bar. effects
	ZV72	190-215	P	pot. bar. effects
	BK74	190-210	P	pot. bar. effects
	R75	185-212	T	alternate assignment of ZV72
	II&80	190-280	P	absolute, pot. bar. effects
	SDD81	190-225	T	MSM X-α calc., shape res., comp. to experiment(HB72)
	II&82	190-280	P,T	absolute, cont. shape res., ab initio calc.
	GSS83	192-212	T	ab initio, comp. to expt (HB71), cove-hole induced reoganisation
	SM&83	194-214	T	ab initio (EICVOM); comp. to KBF_4(s), CF_4; expt (HB71, II&82)
	CF&84a	190-215	E	comp. of 2.5 and 15^o spectra, σ^* (e) enhanced
	KI&84	190-225	P	relative, DES enhanced valence PES at discrete res.
	SSH84a	205	T	σ^*-res./bond length relationship
	VA&85	190-230	P,R	comp. to N_2, NO_3^-, shape resonances
	KYK86	190-225	P,T	comp to II&82 BF_4^-; $Ni(CN)_4^{2-}$ Ni1s; $Fe(CN)_6$ Fe,N1s; edg.αgeom.
	T86	150-200	T	Xα; comp of BF_3, $B(OH)_3$, $C(OH)_3^+$ XANES, R & symmetry effects
BF_3 . . .	HJ&87	190-220	P	partial ion yields, strong variation of σ^*/π^* with channel, QMS
	NAV88a	190-220	P	comp. to KNO_3, $NaNO_3$; $\delta(\pi-\sigma)$ versus R
	NAV88b	190-220	P	comp. to KNO_3, $NaNO_3$; $\delta(\pi-\sigma)$ versus R
	PV&90	190-210	P	comp. to NO_2^-, NO_3^-; $\delta(\pi-\sigma)$ versus R
	EA&91	180-230	E,T	comp. to BF_4^-, EHT calc; (np-π^*) distinguishes trigonal/non geom.
	NAV91	190-220	P	comp. of planar co-ordinated anions, $\pi-\sigma$ bond length correlation
	U91	196,206	P,R	PE & Auger study of decay of a_1, e states
	K92	190-220	R	survey of numerical XANES
	UC&92	196,206	P	resonant Auger-ion coincidence; dissociation dynamics
	U93	196,206	P	resonant Auger; spectrator is 3x participator
	UC&94a	190-220	P	resonant Auger; 2a" mostly spect.; part. uses B-char. bonding orbitals
	SM&95	170-225	P	PEPIPICO; state dependent fragmentation mechanisms
	UO&95b	190-215	P	TIY, resonant Auger-ion coinc; dramatic changes with AI energy
	UO&96	195-216	P	(Auger,ion) coinc.; ion KE; yield as f(AI,Auger state); ion β's; X-sections

				for F^+; fragmentation mechanisms
	SM&97	192	P,T	resonance Auger - nuclear motion coupled; Jahn-Teller model - Auger is coherent 2nd order quantum process; wave packet analysis
	TKU98	194-198	P,T	$2a_2$" resonant Auger; nuclear motion - core hole decay interference; detuning effect observed; energy domain - dynamic Jahn Teller
	U98	192	P,R	Auger-ion coincidence; molecular distortion
	MF&02	195	P	resonant Auger Raman; mapping potential energy surfaces
BF_4^-	HS&81	190-210	P,T	ABF_4 solid compounds (A=K,Na,NH_4) comp. to BF_3, CF_4
	SM&83	190-215	P,T	solid state, res. structure, comp. to BF_3 and CF_4.
BHO	EH99	160-240	E,T	absolute; transient from H_2S+B+SiO_2; comp of HBO, HBS, $H_3B_3O_3$
	H00	160-250	E,R	transient ISEELS; comp of HBO,HBS, H_2S
	HE&01	160-240	E	absolute; transient ISEELS
BHS	EH99	160-240	E,T	absolute; transient from H_2S+B+SiO_2; comp of HBO, HBS, $H_3B_3O_3$
	H00	160-250	E,R	transient ISEELS; comp of HBO,HBS, H_2S
	HE&01	160-240	E	absolute; transient ISEELS
H_3O_3	T86	150-200	T	Xα; comp of BF_3, $B(OH)_3$, $C(OH)_3^+$ XANES; δ(R) & sym. eff.
B_2H_6	ZV72	185-210	P,R	relative intensities
$B_3H_3O_3$	EH99	185-210	E,T	absolute; from H_2O+B; comp of HBO, HBS, $H_3B_3O_3$
$B_3H_6N_3$	DG&86	185-235	E	(borazine), comp. to Bz & cyclohexane, aromatic, split σ* res.
	PVN91	188-212	E	comp. of benzene, borazine and BN(s); shape resonances at edge
	SC95	192	T	ADC local/delocal calc; Jahn-Teller localisation; comp. to N 1s, $C_3H_3^+$
$B_4C_6H_{14}$	HW&93	180-240	E,T	2,3-diethylcarborane, absolute, EHMO, MNDO; ref. for CVD of BC
B_5H_9	HW&93	180-240	E,T	pentaborane, absolute, EHMO, MNDO; ref. for CVD of BC
	LD&92a	180-280	E,T	EXELFS, MNDO geometry
$B_5C_{12}H_{18}P$	HLD91	160-220	E	$Ph_2PB_5H_8$
$B_5C_{19}FeH_{17}O_2P$	HLD91	160-220	E	$Cp(CO)_2FeB_5H_2P(Ph)_2$
$B_9C_2H_{11}$	HW&93	180-270	E,T	nido-1,2-dicarbaundecarborane, absolute, EHMO, decomp. of $Ni(M)_2$
$B_{10}C_2H_{12}$	G91	190-193	T	o-carborane, ab initio, Z+1; comp. to expt. (Anderson, unpublished)
	HW&93	180-240	E,T	absolute, EHMO, MNDO; ref. for CVD of BC
	HR96	185-210	P,R	absolute, comp. of ortho, meta, para isomers
	HR&96	180-220	P	TIY, PIY, PEPIPICO; comp. of ortho, meta, para isomers
	HU&97	185-220	E,P,T	absolute; ab initio; EELS, TIY comp. for o, m, p-isomers; ioniz. eff.
$B_{10}C_2H_{12}$	HU&97	185-220	E,P,T	m-carborane, absolute; ab initio; EELS, TIY comp. for isomers; ioniz. eff.
$B_{10}C_2H_{12}$	HU&97	185-220	E,P,T	p-carborane, absolute; ab initio; EELS, TIY comp. for isomers; ioniz. eff.
$B_{10}H_{14}$	HW&93	180-240	E,T	decaborane, absolute, EHMO, MNDO; ref. for CVD of BC
	LD&92a	180-640	E,T	EXELFS, comparison to solid decaborane, MNDO geometry
$B_{18}C_4H_{22}Ni$	HLD91	160-220	E	$Ni(B_9C_2H_{11})_2$, Ni bollyl complex (Cp-analog)

<u>Bromine 3d</u> (75 eV)

$BrCClH_2$	SR&94	68-110	P	TIY; PEPIPICO; PEPI3CO; selective frag.; $Br(CH_2)_nCl$, n=1-3
	MS&98b	90	P	ES-AEPICO, PE, site-selective fragmentation & kinetics
$BrCF_3$	JC&97	68-80	P	relative; PES, PA comp.; ligand field and spin-orbit splitting; same ligand field paramaters in excitation and ioniz.
$BrCH_3$	HB78a	50-300	E	CH_3Br, cont. res.
	MN87	68-79	P	TPES, DES σ*(C-Br); PIPICO, partial dissociation prior to decay
	N88	63-79	P,R	σ*(C-Br); PIPICO, partial dissociation prior to decay
	NE&88	68-79	P	σ*(C-Br); PIPICO, partial dissociation prior to decay
	NML88	68-80	P,R	partial ion, PIPICO & ZEKE yields; double ionisation via ISE; review
	NM&88	68-79	P	σ*(C-Br); PIPICO, partial dissociation prior to decay
	NM&90	50-170	P	decay of core states, PIPICO yield spectra
	JC&97	68-80	P	relative; PES, PA comp.;ligand field and spin-orbit splitting; same ligand field paramaters in excitation and ioniz.

	OC&97a	10-450	E,P	absolute; high res. (0.1 eV); dipole breakdown, PES, (e,e+ion)
BrCN	OBI95	60-460	E,T	absolute; 0.1-1 eV fwhm; ligand field splitting
BrC_2ClH_4	SR&94	68-110	P	TIY; PEPIPICO; PEPI3CO; selective frag.; $Br(CH_2)_nCl$, n=1-3
BrC_2F_4I	NM&90	60-140	P	Auger, AI and ion yield (PIPICO); selective fragmentation
BrC_2H_3	SBK88	60-100	E	vinyl bromide, high res.
	MLL89	68-110	P	mass spectra, ion yields, selective fragmentation
BrC_2H_5	MLL89	68-110	P	PIPICO spectra, ion yields, selective fragmentation
BrC_3ClH_6	SR&94	68-110	P	TIY; PEPIPICO; PEPI3CO; selective frag.; $Br(CH_2)_nCl$, n=1-3
BrC_6H_5	HP&78	68-80	E	comp. with carbon 1s pre-edge structure
BrD	JC&97	68-80	P	relative; PES, PA comp.; ligand field and spin-orbit splitting; same ligand field paramaters in excitation and ioniz.
BrH	SC&84	69-80	E	75 meV fwhm, Ryd. IP [$3d_{5/2}$=77.12(3), $3d_{3/2}$=78.23(3)]
	BI&85	60-100	E	absolute, photoionization and fragmentation, similar to CH_3Br
	KL86	60-100	T	atomic d-->f res., distinguishes atomic/molecular shape res.
	MN86	68-78	P	ionic dissociation at σ* prior to core hole decay
	MN87	68-79	P	TPES, DES σ*(H-Br); PIPICO, partial dissociation prior to decay
	NB87	68-80	P,R	σ*(H-Br); dissociation prior to decay; review
	N88	63-79	P,R	σ*(H-Br); PIPICO, electron and ion spectroscopy
	NM&88	68-79	P	σ*(H-Br); PIPICO, partial dissociation prior to decay
	LLM90	68-80	P	total ion yield, comp. to PIPICO yields, ultra-fast decay
	SH&91	68-80	P,T	anisotropic H^+, ang. dist., KER etc from MRD-CI calc of HBr^{2+}
	LB&93	69-74	P	0.12 eV resonant Auger; ultrafast decay; hi. res. of MN86
	LB&94a	74-78	P	ligand field split. eliminated & linewidth reduced by res. Auger detection
	LB&94c	73-77	P	EELS reinterpreted in terms of ligand field splitting; comp. to PES
	PD&95	69-79	P	10 meV fwhm; 95 mV nat.; analysed with PES (JEL 67 (94) 299); 5-line pattern of S-O plus ligand field splitting
	NM96	70-79	P,R	ultrafast decay; electronic-nuclear motion coupling; fragmentation
	HB+97	74-78	P	TIY, resonant Auger; ultrafast decay; ultra-high resolution (10 meV); Auger resonant Raman
	JC&97	68-80	P	relative; PES, PA comp.; ligand field and spin-orbit splitting; same ligand field paramaters in excitation and ioniz.
	PH&02	68-77	P	high res.; angle resolved (ion coinc.); symmetry-based re-assignments
Br_2	SC&84	66-80	E	75 meV fwhm, strong res. 9.1eV below IP
	IH&96	20-140	E,P	absolute; abs. ion yield, PIPICO yields; dipole breakdown scheme
	JC&97	68-80	P	relative; PES, PA comp.;ligand field and spin-orbit splitting; same ligand field parameters in excitation and ionisation
Br_4C	BS&02	50-450	P,T	relative, TIY, PIY, compared to $SiBr_4$, $GeBr_4$, Me_3SiBr (BL&98)
Br_4Si	BL&98	50-450	P,T	relative, TIY, PIY

Bromine 3p (190,196 eV)

C_2H_3Br	SBK88	60-100	E	vinyl bromide, high res., width of $3p_{3/2}$>$3p_{1/2}$ due to C-K

Bromine 2s (1790 eV)

Br_4Si	BM&89a	1.75-1.90	P	$SiBr_4$; broad line; no pre-edge feature

Bromine 1s (13.5 keV)

BBr_3	FA98	13.4-14.4	P	relative; EXAFS; MSxα calc; 0.1 pm accuracy claimed; compare to ED
BrC_6H_5	OT&84	13.4-13.5	P	Bz-Br; comp of Br_2, Bz-Br and Br-polyacetylene
	O96	13.4-13.5	P,R	XAFS review; comp. to Br-polyacetylene
BrH	C37	13.5	P	50 eV about edge, gas-solid comp.
	S40	13.5	P	50 eV about edge

	AC&93	13.4-13.9	P,T	EXAFS and KM double excitation
BrI	C37	13.5	P	50 eV about edge, gas-solid comp.
Br_2	S36	13.5	P	20 eV about edge
	C37	13.5	P	50 eV about edge, gas-solid comp.
	S40	13.5	P	50 eV about edge
	KE75	13.4-14.6	P	extended fine structure (EXAFS), comp. to theory
	CEK76	13.4-14.6	P	extended fine structure (EXAFS)
	OT&84	13.4-13.5	P	Bz-Br; comp of Br_2, Bz-Br and Br-polyacetylene
	FE&86	13.4-14.7	P	near edge and EXAFS, comp. to theory, Br_2 on graphite
	K92	13.4-13.6	R	survey of numerical XANES
	TH&92a	13.4-14.6	T,P	MS calc. of xfs; amplitude red. factor; comp. of Br_2, $GeCl_4$, SF_6
	AC&93	13.4-13.9	P,T	EXAFS and KM double excitation
	FD95	13.4-14.6	P,T	GNXAS analysis; KL jumps corrected; good error analysis
	O96	13.4-13.5	P,R	XAFS review; comp. to Br-polyacetylene
	YK&96	13.4-14.6	P.T	T-dependent XAFS; cumulant analysis; Feff 6.0; force constants and anharmonic potentials derived
	FA98	13.4-14.4	P	relative; EXAFS; MS-Xα calc; 0.1 pm accuracy claimed; compare to ED
Br_4C	CEK76	13.4-14.6	P	extended fine structure (EXAFS)

Carbon 1s (290 eV)

$B_4C_6H_{14}$	HW&93	280-316	E,T	2,3-diethylcarborane, absolute, EHMO, MNDO; ref. for CVD of BC
$B_5C_{12}H_{18}P$	HLD91	280-316	E	$Ph_2PB_5H_8$
$B_5C_{19}FeH_{17}O_2P$	HLD91	280-316	E	$Cp(CO)_2FeB_5H_2P(Ph)_2$
$B_9C_2H_{11}$	HW&93	280-316	E,T	nido-1,2-dicarbaundecarborane, absolute, EHMO, decomp. of $Ni(M)_2$
$B_{10}C_2H_{12}$	HW&93	280-316	E,T	o-carborane, absolute, EHMO, MNDO; ref. for CVD of BC
	HR96	280-305	P,R	absolute, comp. of ortho, meta, para isomers
	HR&96	280-305	P	TIY, PIY, PEPIPICO; comp. of ortho, meta, para isomers
	HU&97	280-305	E,P,T	absolute; ab initio; EELS, TIY comp. for o, m, p-isomers; ioniz. eff.
$B_{10}C_2H_{12}$	HU&97	280-305	E,P,T	m-carborane, absolute; ab initio; EELS, TIY comp. of isomers; ioniz. eff.
$B_{10}C_2H_{12}$	HU&97	280-305	E,P,T	p-carborane, absolute; ab initio; EELS, TIY comp. of isomers; ioniz. eff.
$B_{18}C_4H_{22}Ni$	HLD91	280-316	E	$Ni(B_9H_{11}C_2)_2$, Ni bollyl complex (Cp-analog)
$BrCD_3$	HB79c	285-290	E	vibrational structure, isotope shifts
$BrCH_3$	HB78a	50-350	E	vibrational structure
	HB79c	284-293	E	vibrational structure, isotope shift
	OC&97a	10-450	E,P	absolute; dipole breakdown from comparison of PES, (e,e+ion)
BrCN	OBI95	60-460	E,T	absolute; 0.1-1 eV fwhm; DFT calculation
BrC_2H_3	BMT88	280-310	E	comp. to ETS
	SKB88	275-320	E	high res., comp. to vinyl halides
Br_4C	BS&02	50-450	P,T	relative, TIY, PIY, compared to $SiBr_4$, $GeBr_4$, Me_3SiBr (BL&98)
BrC_5MnO_5	HR89	280-320	E	$Mn(CO)_5Br$, absolute, π* intensity as measure of dπ-pπ backbonding
	RH89a	275-330	E	comp. to CO, $Mn(CO)_{10}$ & M(CO)s; E(ref); f(π*)αbackbond
	H90a	280-325	E,R	absolute; comp. to TM-COs; relaxation and δ(R) for σ*(CO)
	HWR90a	280-325	E	absolute; comp. to TM-COs; f(π*) vs. extent of backbonding
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
BrC_6H_5	HP&78	283-295	E	XPS-EELS chemical shifts comp.
$CClF_3$	CS90	292-301	P	high res. (50 meV); sharp σ*(C-Cl), broad σ*(C-F); comp of CCl_xF_{4-x}
	WMT92	295-291	T	ETS vs. ISEELS, SE=6.4 eV; prediction of TVs
	ZIB92	280-330	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	YL94	285-330	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	SS&95	290-325	P	PIPICO; start = selective ion gate; PIPICO yields; comp of Cl2p, C1s, F1s edges; only selective at Cl 2p edge
$CClH_3$	HB78a	180-350	E	vibrational structure

	HB78b	286-292	E	comp. through CH_xCl_{4-x} series, pot. bar. development
	HB79c	284-293	E	vibrational structure
	WMT92	295-291	T	ETS vs. ISEELS, SE=6.4 eV; prediction of TVs
	ZIB92	280-330	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
CCl_2F_2	CS90	291-299	P	σ*(C-Cl), σ*(C-F) slit; comp of CCl_xF_{4-x}
	ZIB92	280-330	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	BSS93b	50-1500	P	partial ion yields at coarse resolution
	SBS94a	44-120	P	partial ion yields; site-selective frag. at C 1s, Cl 2p, F 1s
	SSB94	44-120	P	partial ion-pair yields; site-selective frag.
	YL94	285-330	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
CCl_2H_2	HB78b	286-295	E	pot. bar. effects, extended fine structure (EXAFS)
	WMT92	295-291	T	ETS vs. ISEELS, SE=6.4 eV; prediction of TVs
CCl_2O	HUR92	280-340	E	phosgene; absolute; EHT calc., comp to terethaloylchloride
	RY&92	280-320	E	comp. of small mol. analogs with PET polymer
CCl_3F	ZIB92	280-330	E	absolute, high res. (70 meV), pot. bar.
	YL94	285-330	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	SS97	290,310	P	PIPICO branching ratios; site-specific fragmentation; comp. to CF_xCl_{4-x}
	SS98b	280-320	P	PIY, comp of C 1s, F1s, Cl 2p
CCl_3H	HB78b	286-295	E	pot. bar. effects, extended fine structure (EXAFS)
	WMT92	295-291	T	ETS vs. ISEELS, SE=6.4 eV; prediction of TVs
	ZIB92	280-330	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
CCl_4	HB78b	290-600	E	pot. bar. effects, extended fine structure (EXAFS)
	CKS80	280-310	P	photographic, laser bombardment X-ray light source
	TD84	280-295	T	multiple scattering calc., comp. to expt (HB78b)
	SSS86	285-295	T	SCF calc; assignments of HB79c questioned
	WMT92	295-291	T	ETS vs. ISEELS, SE=6.4 eV; TV preds; comp. of CCl_xF_{4-x}, x=1-4
	ZIB92	280-330	E	absolute, high res. (70 meV), pot. bar.
	BC&93	0-400	E	absolute; atomic ca. 25% too high; (e,e+ion) PIMS; dipole breakdown
	YL94	285-330	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	SC&02	288-296	P	absolute; high res.; weak Ryd.; Γ~72 meV; comp. of CX_4, X=H,Cl,F
CCuO	YA&97	287	T	Cu-(CO); STEX; π* OS comp. of CO, CuCO, $Cu_{17}CO$, $Cu_{50}Co$; initial and final state rules
$CCu_{17}O$	YA&97	287	T	Cu-(CO); STEX; π* OS comp. of CO, CuCO, $Cu_{17}CO$, $Cu_{50}Co$; initial and final state rules
	PA&96	280-340	T	absolute, STEX; comp. of CO, $Cu_{17}CO$, $Cu_{50}Co$; models of CO/Cu(100)
$CCu_{50}O$	YA&97	287	T	Cu-(CO); STEX; π* OS comp. of CO, CuCO, $Cu_{17}CO$, $Cu_{50}Co$; initial and final state rules
	PA&96	280-340	T	absolute, STEX; comp. of CO, $Cu_{17}CO$, $Cu_{50}Co$; models of CO/Cu(100)
CD_2O	RD&92	285-312	P	high res.; Franck-Condon analysis 6 geomtery; E_{el} as f(isotope)
CD_4	HPB77	285-293	E	vibn'l struct; isotope intensity effects (J-T vibronic coupling)
	HM&91b	287-294	P	ZEKE, 0.15 eV fwhm; comp. of CH_4, CD_4; PCI modifies ZEKE; FC anal. of C_K^+ possible (ΔΓ=-0.052(7)A; hole relax. > internucl. rep.
	RDK93	286-291	P	high res (60 meV); $I^D/I^H(3s) = 0.57(5)$; B-O not H-T vibronic coupling; comp. of CH_4/CD_4; C_2H_6/C_2D_6; C_3H_8/C_3D_8
	ST&93	286-291	P,T	high res (60 meV); CH_4/CD_4 comp; 3s/3p (D/H) is 0.65; 0.8 in EELS (HPB77) attributed to 1s 6 3s quadrupole contribution
	DRK94	286-291	P,R	SX700 high res. studies; vibrational structure in small mols.
	RK&00b	286-292	P	TIY, Auger-ion coincidence; 3p vs. C $1s^{-1}$
	KR&02	260,350	P, T	ERAMICO, 2-step model of fragmentation
	SR&02	286-292	P	DES vs PES; ERAMICO, vibration-dissociation correlation
CD_4O	AJ&97a	278-293	P	CD_3OD; relative, 45 meV fwhm; vibrational struct; comp to CH_3OH
CFH_3	BBB78	282-310	P	absolute, CH_xF_{4-x}

	HB78a	284-295	E	vibrational structure, comp. through CH_3X series
	HB79c	284-293	E	vibrational structure
	SSH84a	295	T	σ*-res./bond length relationship
	RS&89	290-330	T	MS-Xα calc. of f & β for (CF_xH_{4-x},x=0-4); only CH_4 resonant
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	S92	280-320	E,R	comp. of CH_3X, X=H, CH_3 NH_2, OH, F; σ*(X-H)
	KU+95	287-294	P,T	60 meV fhhm; ab initio ΔSCF-CI; resonant Auger; confirms σ*/3s but mixed; Rydberg structure very similar to CH_4; reassigned peaks
	US&96	285-305	P,T	high res (60 meV); comp. of CH_xF_{4-x} (0<x<4); Auger and AI decay; SCF calculation; Rydberg vs. valence
	AM97	284-295	T	electronegativity correlations used for assignments; comp. to BBB78
CFHO	IH87	275-325	E	HCOF, absolute, comp. to (HCOX, X=NH_2,OH), π* mapping
	RI&88	275-336	E	absolute, per-fluoro effect
	S92	280-320	E,R	comp. of $CH_xF_{2-x}O$, σ*(C-F) development
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
	HC96	290	T	DFT; singlet-triplet (0.90 eV)
CF_2H_2	BBB78	282-310	P	absolute, pot. bar. effects
	SSH84a	295	T	σ*-res./bond length relationship
	RS&89	290-330	T	MS-Xα; C1s X-sect. & β for (CF_xH_{4-x},x=0-4); only CH_4 resonant
	US&96	285-305	P,T	high res (60 meV); comp. of CH_xF_{4-x} (0<x<4); Auger and AI decay; SCF calculation; Rydberg vs. valence
	AM97	284-295	T	electronegativity correlations used for assignments; comp. to BBB78
CF_2O	RI&88	275-325	E	carbonyl fluoride, C-F σ* res., absolute, perfluoro effect
	S92	280-320	E,R	comp. of $CH_xF_{2-x}O$, σ*(C-F) development
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
	HC96	290	T	DFT; singlet-triplet (1.04 eV)
CF_3H	BBB78	282-310	P	absolute, pot. bar. effects
	SSH84a	295	T	σ*-res./bond length relationship
	HN86	275-330	E	absolute
	RS&89	290-330	T	MS-Xα; C1s X-sect. & β for (CF_xH_{4-x},x=0-4); only CH_4 resonant
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	US&96	285-305	P,T	high res (60 meV); comp. of CH_xF_{4-x} (0<x<4); Auger and AI decay; SCF calculation; Rydberg vs. valence
	AM97	284-295	T	electronegativity correlations used for assignments; comp. to BBB78
CF_3NO	HIR89	280-340	E	absolute, weak bond effect
CF_4	WB74d	290-335	E	res. at thr., pot. barr. effects, unusual fine structure
	BBB78	280-460	P	absolute, pot. bar. effects, extended fine structure (EXAFS)
	TKR79	296-302	E	<70meV FWHM res., unassigned fine structure
	B81	280-340	P	XANES-structure relationship
	BH81	290-330	E,R	wide range
	HS&81	290-305	T	X-α, comp. to BBB78; BF_4^- (B1s)
	AP&82	280-345	T	ab initio, cont. X-sect, comp. to (BBB 78), cont. res. predicted
	SM&83	296-316	T	ab initio (EICVOM), comp. to (WB74d, TKR79), pre-edge res.; Ryd.
	SSH84a	295	T	σ*-res./bond length relationship
	TD84	280-295	T	multiple scattering calc., comp. to expt (WB74d)
	TL&84	300-350	P	absolute, Auger and PES cross-sections, asymmetry parameters
	PV&85	280-310	T	1s62p(t_2) & 1s6ε3p pred; corr. with LiF, K_2BeF_4 & KBF_4 (A1s)
	HI86	300-1000	E	extended fine structure, comp. to BBB78
	SA&86b	250-780	P	absolute, comp. to CH_4; transfer of OS (cont6discrete)
	SDD86	300-330	T	MS-Xα, β, cross-section, comp. to (WB74d, TKR79, TL&84)
	HI86	300-1000	E	EXELFS, comp. to photabsorption (BBB78)
	LCS87	200-700	E	EXELFS; q-independent; Teo & Lee phases inadequate; new background

				subtraction; Bethe ridge
	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	SAV87	280-320	P	absolute; thr. integrated OS comp. to CH_4, CO_2
	LM&89	290-345	P	total ion yield, TOF mass spec at sel. E; no sel. frag.; comp. to SiF_4
	RS&89	290-330	T	MS-Xα; X-sect, β for (CF_xH_{4-x},x=0-4); CH_4 res.; comp. to [TL&84]
	ZC&89	200-700	E	absolute, comp. of sum rule and atomic X-sect. normalisation
	CS90	295-305	P	50 mV fwhm; matches TKR79; no assgn.; comp. of $CCl_{2+x}F_{4-x}$, x=0-2
	H90a	290-320	E,R	absolute, pot. bar. effect on I{σ*(C-F)} through CF_x series
	HW&90	300-700	E	EXELFS, comp. to PA (BBB78)
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	ZIB92	280-330	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	HM94	270-410	E,R	absolute; improved osc. str. conversion; this bibliography!!
	SBS94b	44-1500	P	partial and total ion yields; PEPIPICO; site selective fragmentation
	YL94	285-330	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	IK&95a	294-390	P	absolute; Beers' law; careful corr. of artefacts; x2 diff. from IM&88
	SBS95	294-317	P	PEPIPICO and KERD's; (C,F) site differences probed
	US&96	285-305	P,T	high res (60 meV); comp. of CH_xF_{4-x} (0<x<4); Auger and AI decay; SCF calculation; Rydberg vs. valence
	AM97	284-295	T	electronegativity correlations used for assignments; comp. to BBB78
	NK&97	295-303	P	resonant Auger; high res.; Jahn-Teller split σ*(t_2); mostly spectator; questions participator/total ratio as measure of valence/Ryd. Character
	ITK99	295-302	P,T	vibronic theory; JT (t_2) and quasi-JT; Ryd-val interference; comp. to US&96; vibronic Fano; Ryd. anti-resonant versus prompt at 299.5 eV
	TF&99	295-305	P	relative; TIY, threshold EY, TPEPIPICO; kinematics; branching ratios
	US&99b	295-302	P,T	TIY, ion-auger coinc; J-T vibronic in core hole decay; 2-step dissoc.
	SC&02	288-296	P	absolute; high res.; Γ~74 meV; comp. of CX_4, X=H,Cl,F
CF_4O	MI&87	290-330	E	CF_3OF, low-lying σ*(F-O)
CHN	HB79a	280-320	E	cont. res., vibrational structure
	HB79b	280-320	E	cont. res., vibrational structure, Z+1 analogy
	SSH84a	300	T	σ*-res./bond length relationship
	SG&89	290-330	T	σ* shape res.; position & shape as f(R); approx. cyl. well & ab initio
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	ZZ&92	285-300	T	ΔSCF; explicit core hole; localisation; rules for E(MO) for 2nd row
CH_2	CG&80	283-300	T	ab initio calc.
CH_2O	HB80b	280-320	E	formaldehyde; vibrational structure, cont. res., Z+1 analogy
	SSH84a	300	T	σ*-res./bond length relationship
	RI&88	270-330	E	absolute, comp. to $H_xF_{2-x}CO$, perfluoro effect
	SBT88	285-293	T	absolute; ab initio; low-lying double excitation; comp to HB80b
	SG&89	290-330	T	σ* shape res.; position & shape as f(R); approx. cyl. well & ab initio
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	RD&92	285-312	P	high res.; Franck-Condon analysis 6 geometry; E_{el} as f(isotope)
	S92	280-320	E,R	comp. of $CH_xF_{2-x}O$, σ*(C-F) development
	KS&93	295-350	P	absolute; partial PI X-sect.; β; shape-resonance pos.
	NB95	284-292	T	coupled cluster abi initio; S-T splittings of Rydberg states
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
	HC96	286	T	DFT; singlet-triplet (0.76 eV)
	SB&96	290-350	T,R	absolute, partial PI; βs
	SCT96	295-320	T	core-valence double ionisation; $^1\pi$, $^3\pi$ states; comp. of CO, H_2CO, N_2
	YA&96	280-320	T	STEX; comp. to expt. and other theory; R_2CO species
	TPA98	280-320	T	absolute; DFT vs. STEX, compares CO and R_2CO, R = H, Me
	YA&97	287	T	π* OS for CO bound to hydrocarbons; test of initial and final state sum

				rules; comp to expt.
	TG&00	285-290	T	ab initio; bound ($1s^{-1}$, π^{-1}, π^{2}) state predicted
	TMG01	285-292	T	absolute; AC2, MRCI; comp. to RD&92
	TM&01b	284-292	T	relative, Green's function methods; vibrations; comp. to expt. (RD&92)
CH_2O_2	IH87	275-325	E	(formic acid), absolute, π^* mapping, σ^*(C-O)
	IH88	275-325	E	absolute; comp. to sol. (dimer?), spectr. add'n in methyl formate
	LAL91	285-305	T	CNDO, systematic calc. of σ^* energies; ISEELS, ETS for param. det.
	S92	280-325	E,R	comp. of HCO_2H, HCO_2CH_3 and PMMA nEXAFS
CH_3I	HB78a	50-350	E	cont. res.
	HB79c	284-293	E	vibrational structure
	OCB98	5-480	E	absolute; (e,2e); (e,e+ion); ion yields, dipole induced breakdown
CH_3NO	IH86	275-325	E	$HCONH_2$ formamide, comp. to (HCOX, X=F,OH)
CH_3NO_2	VA&92	280-750	P	absolute; analysed as (CH_3^+, NO_2^-); bond length corr.
CH_3NS_2	TV93	285-295	T	NH_3CS_2; ab initio-SCF-EICVOM; pre-edge res. (π^*, $\sigma^*_{O\text{-}O}$,$\sigma^*_{S\text{-}S}$)
CH_3O_3	T86	290-310	T	$C(OH)_3^+$; Xα calc; comp of BF_3, $B(OH)_3$, $C(OH)_3^+$, δ(R) – symmetry
CH_4	LBZ64	30-620	P	absolute
	C69	284-292	P	photographic
	BKL73	285-295	T	ab initio calc., isotope intensity effect prediction (see HPB77)
	DK73	285-295	T	ab initio calc., one-centre expansion
	WB74b	283-323	E	weak cont. features
	WB74g	286-292	E	Z+1 analogy
	WB74h	286-292	E	Z+1 analogy
	DK75	285-295	T	ab initio calc.
	R75	285-320	T	alternate assignment of WB74g
	S75b	285-320	T	Z+1 analogy calc., comp. to experiment (WB74b)
	BW&76	0.2-2.5	E	Compton profile
	DC76	285-295	T	ab initio calc.
	EH&76	280-300	P	photoelectric yield
	TK&76	287-289	E	<70meV FWHM res., vibrational structure
	HPB77	285-293	E	vibrational structure, isotope intensity effects
	BBB78	282-310	P	absolute
	TKR79	287-291	E	vibrational structure, <70meV FWHM res.
	A80	285-300	P	relative, (see SYD82)
	AVZ82b	532-540	P	comp. to NH_3,H_2O,Ne isoelectronic series (WB74b data)
	SYD82	285-300	T	ab initio, absolute, comp. to expt (A80)
(CH_4 cont'd)	MRR84a	275-290	E	1s->3p res. in elastic scattering, E=283.75eV
	MRR84b	280-286	E	angular dependence of C1s->3p res. in elastic scattering, f-wave
	HB&84	280-320	E	comp. of WB74b data to C_2H_6 (HB77) - no σ^*(C-C) res.
	SSH84a	305	T	σ^*-res./bond length relationship
	TD84	280-295	T	multiple scattering calc., comp. to expt (WB74b)
	GK86	288	T	3s,3p singlet, triplet energies (.39/.13 eV split)
	SA&86b	250-780	P	absolute, comp. to CF_4; transfer of OS (cont6discrete in CF_4)
	SS86a	240-390	P	total (e^-,ion) yield (w-value), 3% modulation by edge structure, PCI
	HFM87	280-320	E	comp. to other fluorocarbons; σ^*(C-F) 'giant shape res.'
	HI87	275-325	E	$\pi^*(CH_3)$, comp. to other alkanes
	SAV87	280-320	P	absolute; thr. integrated OS comp. to CF_4, CO_2
	RS&89	290-330	T	MS-Xα; C1s X-sect. & β for (CF_xH_{4-x},x=0-4); only CH_4 res.!
	MR&90	280-320	P	ion desorption (H^+ from ice); comp. to TEY; gas (WB74b)
	RC&90	280-320	P	comp. of gas, solid; ion yields, H^+ ultrafast diss.
	HM&91b	287-294	P	ZEKE, 0.15 ev fwhm; comp. of CH_4, CD_4; PCI modifies ZEKE; FC analysis of C_K^+ ($\Delta\Gamma$=-0.052(7)A; hole relax. > internucl. rep.
	LAL91	285-305	T	CNDO, systematic calc. of σ^* energies; ISEELS, ETS for param. det.
	KNP92	285-290	T	SCF-CI with (Z+1); comp. to expt. [WB74b]; small dev. in triplet states

				assoc. with (Z+1) errors
	KP92a	287-291	T	absolute, MR-CI; comp. to expt. [TKR79]
	S92	280-320	E,R	comp. of CH_3X, X=H, CH_3 NH_2, OH, F; σ*(X-H)
	RDK93	286-291	P	high res (60 meV); $I^D/I^H(3s) = 0.57(5)$; B-O not H-T vibronic coupling; comp. of CH_4/CD_4; C_2H_6/C_2D_6; C_3H_8/C_3D_8
	ST&93	286-291	P,T	high res (60 meV); ab initio; CH_4/CD_4 comp; 3s/3p (D/H) is 0.65; comp of H_2O, NH_3, CH_4 - all σ* dissoc.
	DRK94	281-291	P,R	SX700 high res. studies; vibrational structure in small mols.
	UO&95a	286-291	P,T	60 mV fwhm; resonant Auger used to detect Ryd-val. mixing; no Jahn-Teller; predicts C-H val. states in continuum (cf SSH84a)
	K96	286-291	P,R	sym. resolved; TIY, 3p Jahn-Teller distortion → non-symmetric ang. dist.
	KI&96	280-320	P	absolute; high res. XAS and XPs; partial PI X-sect. (satellites); ang. dist.; conjugate shake-up; continuum peaks (303,311) identified as doubly excited states; conclude σ*(C-H) (a_1,t_2) are mixed with Rydbergs
	US&96	285-305	P,T	high res (60 meV); comp. of CH_xF_{4-x} (0<x<4); Auger and AI decay; GSCF3 calculation; Rydberg vs. valence
	AM97	284-295	T	electronegativity correlations used for assignments; comp. to BBB78
	K01	286-290	P,T	symmetry resolved; high res.; Jahn-Teller
	SC&02	288-296	P	absolute; high res.; Γ~88 meV; comp. of CX_4, X=H,Cl,F
$(CH_4)_n$	KB&97	284-296	P	NEXAFS as f(cluster size); gas-solid evolution
CH_4O	WB74b	282-325	E	(CH_3OH - methanol)
	SSH84a	295	T	σ*-res./bond length relationship
	IH88	280-325	E	absolute OS, used to test spectral additivity in methyl formate
	H89	280-320	E,R	review of electron-beam core excitation spectroscopies (Aussois)
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	BC&92	280-340	E	absolute
	S92	280-320	E,R	comp. of CH_3X, X=H, CH_3 NH_2, OH, F; σ*(X-H)
	AJ&97a	278-293	P	relative, 45 meV fwhm; vibrational struct; comp to CD_3OD
	HP&99	287-298	P	relative, TIY, PIY, PEPICO yields, site specific fragmentation
	SO&02	285-298	P	relative, anion PIY, OH^- only in discrete C1s states
CH_4S	DTH90	275-325	E	CH_3SH; absolute, comp. to other RSH, RSR'; σ*(C-S)
	TV93	285-295	T	ab in.-SCF-EICVOM; pre-edge res. (π*,$σ^*_{O-O}$,$σ^*_{S-S}$); comp to DTH90
CH_5N	WB74b	280-320	E	(CH_3NH_2 - methylamine) res. at thr.
	SSH84a	295	T	σ*-res./bond length relationship
(CH_5N cont'd)	SB85b	285-335	E	σ* res. at thr., comp. to $(CH_3)_xNH_{3-x}$,x=0-3
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	S92	280-320	E,R	comp. of CH_3X, X=H, CH_3 NH_2, OH, F; σ*(X-H)
CNiO	OD93	287-300	T	ab initio SCF-CI; comp. of CO, NiCO; comp. to expt. (CSB89), NEXAFS of CO/Ni (PC&78); intensity ratios predicted; f(π*)=0.24; no reduction in f(π*) relative to free CO (.239 6 .234)
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
CO	WSB70	280-310	E	ionic fragmentation (C^+, CO_2^+ yields)
	NM&71	281-298	P	photographic
	WS72	284-314	E	absolute, ionic fragmentation
	WBW73	280-325	E	cont. res., Z+1 analogy
	DSD76	290-360	T	MS X-α calc., shape res. photoelectron βs
	TK&76	287-288	E	vibrational structure
	GMK77	287-288	T	ab initio calc. of vibrational structure
	KLW77a	200-500	E	absolute, cont. res.
	KLW77b	200-500	E	absolute, ionic fragmentation, post-collision interaction effects
	KMR77	284-300	E	negative-ion K-shell-excited res.
	KM&77	280-320	T	ab initio calc., vibn'l struct; comp. to expt (NM&71, WBW73)

	IKN78	280-320	T	ab initio calc., comp. to experiment (WBW73), two-electron transitions
	PC&78	290-320	T	ab initio calc., comp. to experiment (KLW77a), cont. shape res.
	DD79	290-350	T	X-α (MSM) calc., cont. shape res.
	KDC79	287-288	T	ab initio calc. of vibrational structure, comp. to experiment (TK&76)
	KMN79	285-310	T	ab initio calc., comp. to experiment (KLW77a), oscillator strengths
	TKR79	287-297	E	<70meV FWHM res., vibrational structure, Z+1 analogy
	ZT&79	284-290	E	-ve ion K-shell-excited res. obsv'd in ionic frag. yields
	DS&80	290-320	T	X-α (MSM) calc., shape res. Auger electron ang. dist.
	HB80a	280-320	E	vibrational structure, cont. res., comp. to theory
	W80	295-310	E	cont. shape res., ionic fragmentation
	BH81	280-320	E,R	re. absorption vs. ion yields, PCI efFects, comp. to N_2
	BD&82	285-290	E,R	calibration (π*=287.40eV)
	ES&83a	284-302	P	total ion yield and fragmentation (PIMS), comp. to KLW776
	GN&83	280-320	P,T	comparison of core and valence cont. shapes
	KK83	285-289	T	ab initio (Z+1) basis calc. of (1s,π*) energy, comp. to expt (HB80a)
	SK&83	280-300	E	dipole forbidden transitions
	TS&83	270-320	P	absolute, cont. X-sect., Auger yield, β value, shape res.
	UT83	280-290	E	$^3\pi$ state observed in ELS (Eo=400eV) and Auger-ELS (e,2e)
	ZMP83	280-500	E	appearance pot.s, π* at 287.3
	AA84	285-310	T	ab initio, CI, all 1-e & 2-e transitions, oscillator strength
	CF&84b	287	P	DES, π* AI; comp. to $Cr(CO)_6$, CO/Cu(100); $^1\pi$->$^3\pi$ before AI on surf.?
	EC&84	280-340	P	ion yield, ion KE, comp. to DES, CO/Cu and Mn,Co,Fe carbonyls
	ES84	285-300	P	partial and total ion yields
	JH&84	283-293	P	EY; sol./gas/chemisorbed Ni(111) comp., (-0.3eV chemisorb. shift); M->C=O backbonding, 0.2eV FWHM, vibrl. struct.
	SB84	287.40(2)	E	calibration standard (π* v=0)
	SK&84a	286-302	E	apparatus, 55meV FWHM; $^3\pi$ (410eV impact), Ryd. IP=296.07(4); vibnl struct. in 2e- excit. (300-302eV) ($^3\pi$-$^1\pi$=1.45 eV)
	SK&84b	270-320	P	absolute, Auger (AI) X-sect.; comp. to KLW77a, calc.
	SSH84a	295	T	σ*-res./bond length relationship
	TL&84	280-320	P	Auger on π*, cont; PES X-sect. & βs; absolute, comp. to KLW77a
	UH84	280-315	E	conjugate shakeup enhancement; comp. of Auger, (e,2e) and EELS
	BS85	285-295	T	polarisation-propogators, allowed, forbidden, double excitations, absolute, comp. to HB80a
(CO cont'd)	CF&85	286-289	T	calc. of vibrational structure in π*, comp. to TKR79
	RL&85	280-320	P	comp. of multilayer PSID and ISEELS; comp. of CO, N_2, NO, N_2O
	UT85	275-315	E	autoionzation and Auger decay by (e,2e)
	BH&86	285-320	P	βs change at π* but not σ* res.
	HI86	280-530	E	weak EXAFS
	HK86	283-290	E	5-40 eV constant final energy scans, $^3\pi/^1\pi$ ratio, σ* negative ion res. at 14 eV excitation
	KS&86	287	T	DV-Xα, 1s-->π*, comp. to IPES, NiCO, sensitive to R(Ni-C)
	RS&86	300-400	P	partial X-sections, βs for main line & sat.(S_1, S_2); S_1 (308 eV) displaced σ*(C-O); S_2 (315 eV) - no shape res., diff. β
	AWS87	303-308	T	2e- excited states ($1s^{-1}$, val^{-1}, π^{*2})
	E87	285-340	P	IYs; (e,ion) coinc.; ion KE, comp. to TM COs & chemisorbed CO
	FR&87	300-400	P	XPS satellite part. X-sect.; S1 - displaced res.; S2 - no σ*
	K87	287-295	T	ab initio, CI, absolute dipole, comp. to expt
	MC&87	280-330	E	absolute, test of EELS6PA conversion
	H89	280-320	E,R	review of electron-beam core excitation spectroscopies (Aussois)
	HKA88	280-300	E	thr. excited Auger, PCI, negative ion res.
	HL&88	260-360	P	absolute, total & part. IY; PIPICO, ion breakdown patterns

	MF&88	280-320	P	ZEKE; XPS-sat & EELS/PA, higher Ryd., 2e & shake-up, PCI
	NE&88	287,305	P	PIPCO, comp. to valence & O1s double ionisation
	CSB89	280-335	E	comp. to $Ni(CO)_4$; vibrations resolved on π^*
	SG&89	290-330	T	σ^* shape res.; pos. & shape as f(R); approx. cyl. well; ab initio
	SY&89	280-320	P	comp to EELS, lower discrete/cont.; cont. flatter; O1s 2nd order
	BS90	296-400	P	satellite line X-sect; comp. to atomic and N_2
	DX&90	285-310	P	85 meV fwhm; vibn struct. in 2-e- transitions
	H90a	280-325	E.R	absolute; comp. to TM-COs; relaxation and δ(R) for σ^*(CO)
	HWR90a	280-325	E	absolute; comp. to TM-COs; f(π^*) vs. extent of backbonding
	SBM90	292-322	T	RCHF calc, improved agreement with experiment [LT&84]
	BH91	280-320	E,R	re. absorption vs. ion yields, PCI efFects, comp. to N_2
	FA91	287-290	T	ab initio; XAS and XRF; comp. to expt. (HB80a)
	L91	295-320	T	β-parameter; comp. to DS&80
	LAL91	285-305	T	CNDO, systematic calc. of σ^* energies; ISEELS, ETS for param. det.
	MC&91	285-304	P	150 meV fwhm; isotope effect on π^*, Ryd vib'n; comp to N_2; vibr'ns in 2e; ECM breakdown in intensities
	SBM91	305-400	T	RCHF; SD & SI satellite X-sections; comp. to ext.
	DM&92	286-289	P	high res. (55 meV)
	H92b	286-292	E	comp of $^3\pi$-$^1\pi$ split. in CO and $Fe(CO)_5$
	MH&92b	285-310	P	ZEKE-PES; 140mV fwhm; ion state vibn. (ad.); 2e-; comp. to AWS87
	RF&92	286-289	P	high res. (<50 meV); instrument description
	RS&92a	280-330	P	TEY, TIY; comp. of CO^+ and $(CO)_2^+$ from $(CO)_n$, n to 8; cont. incr. in CO^+; ms; PIPICO
	SK&92a	298-322	P	cross-sect. & β from PES; ($1s^{-1}$) comp. to total Auger; 2e- excit. seen in 1e- X-sect.; CANNOT use CIS top distinguish 1e- vs. 2e-
	TWT92	287-288	P	140 meV, accurate v=0/v=1 intensities
	YM&92	286-289	P	50 meV resolution
	YS92	285-315	P	symmetry resolved PI (0, 90° ion yield); high res. (51 meV)
	ZZ&92	285-300	T	ΔSCF; explicit core hole; localisation; rules for E(MO) for 2nd row
	BL93	285-320	T	PI cross-section, multichannel CI
	HH&93	285-320	P	β-values for C^+ and Auger; β>1 at 305 (σ^*) in both; π-σ interactions decrease molecular alignment
	OD93	287-300	T	ab initio SCF-CI; comp. of CO, NiCO; comp. to expt. (CSB89), NEXAFS of CO/Ni (PC&78); intensity ratios predicted; f(π^*)=0.24
(CO cont'd)	RK&93	300-320	P	vibrationally resolved partial PI X-section; σ^* resonance affects vibrational populations; vibrations in shake-up signal
	SH&93	280-320	P,T	symmetry resolved spectra using ion ang. dist.
	BSS94	280-320	P,T	β = -0.8 (π^*), +0.5 (σ^*) for C^+,O^+; relaxed core HF calc; effect of C 1s shake-up on β
	DK94	286,287.4	E	autoioniz. decay of $^3\pi$ (Eo=315 eV); PCI shifts (95 mV-$^1\pi$; 115 mV-$^3\pi$)
	DRK94	286-291	P,R	SX700 high res. studies; vibrational structure in small mols.
	FKH94	284-288	E,T	angle and Eo study of $^3\pi$; ab initio CI potential curves; $^1\pi$ and $^3\pi$ differ
	FE&94	285-290	E,T	triplet π^*; INDO calc; correlation of S-T split. and f($^1\pi^*$)
	HH&94	285-320	P	Auger anisotropy at σ^*
	NR&94	287.4	P,T	DES; v of CO^+(val) depends on v of ($C1s^{-1}$,π^*); comp. to N_2, O_2
	RH&94	296-320	P,T	ZEKE and partial X-sec. for satellites; comp. of C1s and O 1s
	S94	635,823	T	doubly K-excited & K-ionized states predicted; ΔSCF with opt. geom.
	YND94	292-320	T	absolute; ab initio; Z+1; multiple excitations; comp. to (TKR75)
	BM95	287,305	P	angle-dependent Auger (0,54.7°), β; initial state alignment produces anisotropic Auger; effect stronger at π^* than σ^*
	CC&95	286-295	P	SGM at SRBC performance test; high resolution
	EK&95a	286-290	P	PIY; selective fragmentation at Rydberg states

	HA&95	299,326	P	(e,ion) PEPICO; PE ang. dist. with parallel and perp. excit.; f-wave char. of σ* SR only seen in parallel
	HW&95	330	P	ang.dist. of shake-up; participator Auger dominates
	KK&95	298-325	P	absolute; partial X-sect; high res.; shape res. in main & satellite channels; vibrationally resolved XPS
	NB95	285-295	T	coupled cluster abi initio; S-T splittings of Rydberg states
	OA&95	287	P,T	vibrationally-resolved AI; vib.-lifetime interference shift detected; nat. linewidths: C1σ*=86(10) mV; C1s^{-1}=97(10) mV
	SAA95	287-288	P	high res. (<50 meV); resonant Auger; (vibrational-lifetime) interference; comp. to OA&95
	SA&95	321	P	photoelectron asymmetry; fixed-in-space; forward-backward asymmetry
	SH&95	285-320	P	total and partial ion yields; e-ion coincidence
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
	SS95	287-296	P,R	PEPICO; ang. dist.; KERD at π*, Ryd.
	EK&96	286-294	P	partial ion yields; KERDs; frag. mechanisms; enhanced v=4 of π* in both QMS, TOF; comp. to SH&95, HL&88; KE discrimination in QMS
	HC96	286-288	T	accurate excitation calc. by DFT; singlet-triplet split. pred. (1.28 eV)
	KK&96b	288-340	P	absolute; autoionization of double excited states
	L96b	286-296	P,R	high res. absorption; isotope effects
	NM96	280-320	P,R	PIPICO, partial ion cross-sections (from HL&88); coincidence expts
	PA&96	280-340	T	absolute, STEX; comp. of CO, $Cu_{17}CO$, $Cu_{50}Co$; models of CO/Cu(100)
	SB&96	295-395	T,R	absolute, partial cross-sections; comp. to expt.
	SCT96	295-320	T	core-valence double ionisation; $^1\pi$, $^3\pi$ states; comp. of CO, H_2CO, N_2
	SH&96b	287-287	P	(C^+,O^+) angular and KE distributions; βs; vibn=ly resolved (0.1 eV fwhm); β(π*) < 1; long-lived low-KE components allow rotation prior to decay
	SST96	285-315	T	constant chemical potential LDA; π*, σ* res. rel. position; comp. of π-σ sep. in CO, C_2H_2, C_2H_4, N_2, O_2
	SO&96	293-296	P	vibrationally selected resonant Auger at 3p state; spectator dominant; v-dependent angular effects
	WW&96	287.4,312	P	Auger-ion coinc, at π*, σ*; (C,O^+) NOT detected, contrary to HL&88
	YA&96	280-320	T	STEX; comp. to expt. and other theory; R_2CO species
	AK&97	285-289	P	angle-resolved ion yields; ion βs
	AMK97	285-287	T	absolute, DWA, cross-section for $^3\pi$, $^1\pi$
(CO cont′d)	BL97a	285-320	T	PI cross-sections; multichannel CI
	BS97	287-295	T	MC-CI; absorption, AI, RIXS; interference effects
	CC&97	287.4	P,T	resonant photoemission, frequency detuning; magic angle; (val)$^{-1}$ and resonant interference ; PE branching ratios as f(E) from intereference
	GA97	280-340	T	absolute; STEX; resonant elastic scatt.; vib'n α detuning in REXS
	HG&97	321,326	P	mass & angle resolved PEPICO; TOF e-,ion; forward/backward asymmetry due to multiple scattering; agrees with DSD76
	JA&97b	286-297	P	relative; 12500 resolving power; 25 meV fwhm instrumental
	NG&97	287-296	P,R	resonant X-ray emission (RIXS); ang. dep. at 3s, 3p, Ryd; v-dependent
	PN&97	287-289	P,T	relative; high-res.; vibrationally resolved AI decay; ab initio calcs; vibrational-lifetime interference
	SA97	287	P,R	Auger resonant Raman; interference controlled by detuning
	SG&97a	287-292	P,T	resonant X-ray emission; screening shifts; ang. dep.; lifetime-vibrational interference; ab initio RIXS calc'n
	SG&97b	286-289	P,T	lifetime-vibrational interference in RIXS, LVI important for lineshapes; self-absorption corrections
	SG&97c	286-288	P	Auger resonant Raman; vib'nl struct. α detuning; t-v interference
	SG&97d	293-296	P,T	resonant Auger of Rydberg; intermediate state relaxes
	SL&97	296-350	P	PCI affects Auger decay, B-state vibrationally resolved
	YA&97	287	T	π* OS for CO bound to hydrocarbons; test of initial and final state sum

				rules; comp to expt.
	ZZL97	285-310	T	MS-SCF; comp. to DV-Xα using Z+1 and g.s. approaches
	GTM98	287	P,T	Auger resonant Raman; time domain; detuning effects
	OS&98	287	P	AI; vib'n-resolved; lifetime-vib'n interference; Morse potential no good
	S98	285-315	P,T	fixed-in-space molecule; symmetry resolved PA and PI; Angular distribution.; partial wave decomposition at σ*
	SA&98a	300-340	P	fixed-in-space molecule; symmetry repsolved PA and PI; Angular distribution.; forward scattering effect
	SA&98b	305,330	PT	σ* shape resonance affects vibrations in XPS; num. simulation indicates F-C works with distorted intermediate state; Auger ang. dist. anisotropic
	TPA98	280-320	T	absolute; DFT vs. STEX, compares CO with R_2CO, R=H, Me, Ph
	YNH98	290-340	T	absolute; many e-; comp. to expt (BL93, SBM91); multiplets too high
	AD&99	285-287	E	resonant ion autoionization; $^3\pi$, $^1\pi$ ratio = 8 at threshold; comp to AMK97
	BW&99	287, 350	P	PEPICO; Auger-ion coinc; 2-step (C^+,O^+) at π*; wall coll. & KERD
	HH&99	290-300	P	Ryd states; angle rresolved resonant Auger; βs, screening energies
	KB&99	287.4	P	resonant AI; participator/spectator; very high resolution
	P99	292-316	T	inelastic scattering; double excit; quasi-atomic; comp. to KK&96b
	SS&99	287-292	P	resonant Auger at π, 2s, 3p; 3s valence-like;strict spectator OK for 3p
	CR&00	290-315	P,T	fixed-in-space ang. dist; theory; double excitation; shape resonance
	FK&00	287	P	vibrationally resolved resonant Auger
	H00	285-289	E,R	triplet non-dipole, vibrational structure
	MA&00	290-315	P,T	fixed-in-space ang. dist; theory
	PR00	280-330	P,T	relative; molecule solid comparison; only Rydberg changes
	SH&00	287-288	P	TIY, PIY, PIPICO; lifetime-vibration effects; comp. of CO & N_2
	YH&00	286-289	P	TEY; resolution test of CSRF-SGM
	CPA01	280-320	T	STEX with screening; comp. to expt. (HB80)
	I01	300-330	P,T	absolute, fixed-in-space photoelectron ang. dist.; shape resonances
	KML01	285-900	T	electron impact GOS, singlet-triplet ration as f(E_o)
	KS01	296-1000	E	electron impact excited Auger-ion coincidence; comp to CO^{++} PE curves
	WJ&01	306	P,T	COLTRIMS detailed ionization analysis; shape resonance dynamics
	SH&01	285-310	P	anionic photofragmentation
	FK&02	285-289	P	DES; resonant Auger reveals v=3, v=4 vibrational structure better
(CO cont′d)	GC&02	299-320	T	fixed-in-space ang. dist.; comp to expt.
	HS&02	295-299	P	anion yield at threshold, high-res – vibn'l effects; PCI
	JW&02	306	P, T	fixed-in-space PES; COLTRIMS; circular dichroism at shape resonance, MS , RPAE calc
	K02	284-298	P,TR	symmetry resolved, high resolution; review
	MR&02	296-330	P	fixed-in-space ang. dist.; shape resonance; comp. to (SA&98a, MA&00)
COPd	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
COPt	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
COS	WB74e	282-328	E	pot. bar. effects
	TKR79	288-289	E	<70meV FWHM res., vibrational structure
	SSH84a	295	T	σ*-res./bond length relationship, anolalous
	TL&84	280-320	P	Auger on π*, Auger, PES cross-sections, βs, absolute
	HK87	285-297	E	singlet-triplet (π) = 1.13 eV, σ*(C-S) = 0.3 eV
	HI88b	280-530	E	near edge and EXELFS; comp to calc (unpublished)
	NE&88	305	P	PIPICO, ion kinetic energies, comp. to valence, O1s ionization
	NH&88	285-325	R	comp. of ETS, all edges, CO_2, CS_2 re localization of σ*, decay
	MH&89	275-340	E,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	SY&89	280-320	P	comp to EELS, lower discrete/cont.; cont. flatter, O1s 2nd order
	EK&95c	288	P	PEPIPICO, lineshape distribution for ion pairs
	AK&97a	288	P,T	Renner-Teller split π* state of CO_2, COS, CS_2; ion yield polarization
	EK&97a	287-297	P	TIY, PEPICO; β ; high res.; PEPIPICO

	EK&97b	286-296	P	TIY, PEPICO; fragmentation mechanisms
	EK&97c	286-296	P	TIY, PIY; PE3PICO; fragmentation mechanisms
	MB&98	287-290	P	resonant Auger; vibrational resolved; Renner-Teller; lifetime-vib'n interfer.
	MG&99	280-300	P,T	TIY, STEX, resonant emission; atomic like ultra-fast decay of σ*
	FCB00	50-360	E	absolute; good match to atomic (Henke); aum rule analysis
	K02	284-298	P,TR	symmetry resolved, high resolution; review
CO_2	WB74a	285-328	E	cont. res., Z+1 analogy
	SB76	285-330	T	geometry corrected, Z+1 analogy calc., E($^1\pi$-$^3\pi$)=1.15eV
	BDW79	.05-2.5	E	generalized oscillator strengths, Bethe surface
	HBW79	291	E	ionic fragmentation
	TK&79	289-291	E	<70meV FWHM res.
	PC&81a	295-335	T	ab initio calc.; comp. to experiment (WB74e), cont. shape res.
	B82a	291	E,R	ionic frag. of discrete autoionizing states, review (HBW79 data)
	LM82b	295-325	T	ab initio, comp. to experiment (WB74a), cont. shape res.
	NP&82	278-281	P	K-emission spectrum (e- excited), C1s^{-1} width = 0.07(2) eV
	KK83	285-289	T	ab initio (Z+1) basis calc. of (1s,π*) energy, comp. to expt (WB74a)
	SK&83	280-300	E	dipole forbidden transitions
	ZMP83	280-500	E	appearance pot.s, π* at 291.3
	SA&84	280-520	P	absolute, 0.2eV FWHM, comp. to WB74a, Z+1 analogy
	SK&84b	295-340	P	absolute, Auger (AI) yield, comp. to expt. [WB74a], calc. [LM82b]
	SSH84a	295	T	σ*-res./bond length relationship, anomalous
	TL&84	280-320	P	Auger on π*, Auger, PES cross-sections, βs, absolute
	DH&86	295-325	T	critical of LM82b calc.
	HI86	280-530	E	weak EXAFS
	SKR86	287-294	E	high res. (65meV), E($^1\pi$-$^3\pi$)=1.48eV, comp. to theory (SB76)
	HK87	288-299	E	singlet-triplet (π*) = 1.42 eV
	MC&87	280-330	E	absolute OS, test of EELS6OOS conversion
	PL&87	290-330	T	shape-resonance bond length refutation
	SAV87	10-1000	P,T	absolute; comp. to X-α; thr. inte. OS comp. to CH_4, CF_4
	NH&88	285-325	R	comp. of ETS, all edges, CO_2, CS_2 re localization of σ*, decay
	MH&89	275-340	E,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
(CO_2 cont'd)	SG&89	290-330	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	SY&89	280-320	P	comp to EELS, lower discrete/cont; cont. flatter, O1s 2nd order
	CT91	291	E	(e,2e); DES comp. to Auger, theory [Phys. Rev. B 41 (90) 10510]
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	MC&91	292-297	P	50 meV; vibrations in Ryd. states
	BBS91	260-380	E,T	GOS (π*); ab inition ΔSCF calc of GOS
	FA91	290-294	T	ab initio, calc of E,f for XRF, XAS; comp. to expt. (WB74)
	DJ&92	295-320	P	ZEKE, (ZEKE, ion,ion) yield; comp. to cluster $(CO_2)_n$
	SK&92a	298-340	P	cross-sect. & β from PES; (1s^{-1}) comp. to total Auger; 2e- excit. seen in 1e- X-sect.; CANNOT use CIS top distinguish 1e- vs. 2e-
	S92	288-326	E,T,R	MS-Xα; comp. to WB74
	BD93	288-292	E	near threshold (0^o) excit.; σ* res. in I($^1\pi$/$^3\pi$); δE(^{1}-^{3})=1.46(4) eV
	MB93	290.7	T	ab initio CI; GOS comp. to expt. [BBS91]; OOS=0.164
	ML&93	285-320	P	ionic fragmentation mechanisms; comp. of CO_2, N_2O, $Fe(CO_2(NO)_2$
	L94	290,303	P,T	resonant AI and X-ray emission; comp. to HF calc.
	NBE94	284-340	P	DES, Auger lineshapes; through edge; unified (excite-decay) model
	BSS95	288-330	P	total and partial ion yields, βs; PIPICO; O-C-O angle = 124^o in π*
	HC&95	288-302	P	TIY, PIY; thr. e, ion,ion coinc.; site-specific fragment. (not in O1s)
	SK&95b	298-360	P	partial PE X-sect; βs for main & satellite lines; coupling prevents use of main lines to identify SR; strong conjugate shake-up
	SS95	291-296	P,R	PEPICO; ang. dist.; KERD at π*, Ryd.

	AK&96a	288-300	P	ion ang. dist. symmetry resolved for Rydbergs; vibronic coupling
	FCM96	291	T	GOS extrapolation to K^2=0; comp. to BBS91
	HC&96	300	P	triple coincidence (C+,O+,O+) PIPIPICO
	K96b	292-298	P,R	symmetry resolved; $3s\sigma_g$ shows anisotropy assoc. with bending; vibronic coupling in antisym. mode; strong effect on 3p,3d; no axial recoil approx.
	RJ96	280-330	P	O_- yield; compared to cation and TIY; O^- from primary process
	YA&96	280-320	T	STEX; comp. to expt. and other theory; R_2CO species
	AK&97a	291	P,T	Renner-Teller split π* state of CO_2, COS, CS_2; ion yield polarization
	NG&97	291	P,R	resonant X-ray emission (RIXS)
	YA&97	287	T	π* OS; test of initial and final state sum rules; comp to expt.
	ET&00	280-296	E,T	methods; GOS at π*, Ryd; MC-GMS calc
	H00	282-330	E,T,R	dipole, non-dipole spectra; π* GOS; parallel detection evaluation
	KBB00	289-292	P,T	high res.; resonant Auger; Renner-Teller; participator decay to A state; potential energy curves derived
	MS&00	290-298	P	E-PEPICO; bending mode affects ionic frag; more (O^+,CO) on low-E side
	SO&01	290.7	P	sub-natural linewidths by resonant Auger
	TE&01	280-340	E,T	GOS at π*, Ryd; MC-GMS calc
	AM&02	288-325	P	fixed-in-space PE ang. dist.; f,p,h waves similar intensity at σ*
	HR&02	285-320	P,T	threshold yield; shake-up satellites; time domain analysis
	K02	284-298	P,TR	symmetry resolved, high resolution; review
	N02	290-292	T	symmetry-resolved Renner-Teller, A_1, B_1 potentials and spectra; vibrational structure; comp to YN&02
	OS&02	288-312	P	relative, Anion, cation PIY; only O^- at ($C1s^{-1}$,π*); O^- , C^- at O1s edge
	RB02	292	T	GOS computed with vibronic contributions
	YN&02	290-292	P	symmetry-resolved Renner-Teller; separation of A_1, B_1 signals
	SF&03	285-335	P,T	fixed-in-space ang. dist.; RCHF calc agree with measurements
$(CO_2)_n$	DJ&92	295-320	P	ZEKE, (ZEKE, ion,ion) yield; threshold ion-pairs with atomic ions are quenched in cluster; fast charge transfer; participator val. Auger
CO_3H_2	TV93	285-295	T	H_2CO_3; ab initio-SCF-EICVOM; pre-edge res. (π*, σ^*_{O-O},σ^*_{S-S})
CS_2	WB74e	280-325	E	pot. bar. effects
	SSH84a	295	T	anomalous σ*-res./bond length relationship
(CS_2 cont'd)	H87	270-310	P	relative yields of CS_2^+, CS^+, CS_2^{2+}; ion state decay, quadrupole MS
	HK87	284-297	E	singlet-triplet (π*) = 0.9 eV, σ* = 0.8 eV
	NH&88	285-325	R	comp. of ETS, all edges, CO_2, CS_2 re localization of σ*, decay
	MH&89	275-340	E,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	AK&97a	286	P,T	Renner-Teller split π* state of CO_2, COS, CS_2; ion yield polarization
	KE&98	280-320	P	TIY, angle-resolved PEPICO; β = -0.65 for S^+ at π*; doubly exited states; anisotropy as f(KE); 80 meV fwhm
	FE&99	283-32-	P	TIY; ionic frag; branching ratios; state selective fragmentation
	K02	284-298	P,TR	symmetry resolved, high resolution; review
C_2	SG&89	290-330	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
C_2ClH_3	BMT88	280-310	E	comp. to ETS
	SKB88	275-320	E	high res., comp. to vinyl halides
C_2ClH_5	HB78b	284-300	E	ethyl chloride; test of spectral additivity
	FL02	284-299	E	absolute, GOS profiles compared of C 1s, Cl 2p & valence
$C_2Cl_2H_4$	H92a	280-340	E	1,2-dichloroethene, absolute, comp. to NEXAFS (W. Walter)
C_2Cl_3H	WH90	275-340	E	trichloroethene
C_2DH	KI&97	282-292	P,T	high res. (20 meV); isotopomer comp.; vibronic coupling at π*; bending modes excited; ab initio calc.
C_2D_2	MC&91	284-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_x, C_2D_x (isotope eff.)
	KI&97	282-292	P,T	high res. (20 meV); isotopomer comp.; vibronic coupling at π*; bending modes excited; ab initio calc.

$C_2D_2H_2$	KI&95b	283-291	P	CD_2CH_2; absolute;ethene isotopomers 40 meV fwhm; vibn'l isotope study; non-TS modes => symmetry breaking → core hole localization
	KG&97	283-287	T	vibronic coupling; symmetry breaking and core hole localization; comparison of isotopomers (C_2D_4, C_2H_4,CH_2CD_2, cis-CHDCHD)
$C_2D_2H_2$	KI&95b	283-291	P	cis-CHDCHD; absolute; 40 meV fwhm; isotopomers; hole localiz.
	KG&97	283-287	T	vibronic coupling; symmetry breaking and core hole localization; comparison of isotopomers (C_2D_4, C_2H_4,CH_2CD_2, cis-CHDCHD)
C_2D_4	CS90	284-287	P	π* vib'nl isotope effect; symmetry breaking; localised core hole
	MS&89	284-287	P	π* vib'nl isotope effect; symmetry breaking; localised core hole
	MS&90	284-287	P	π* vib'nl isotope effect; symmetry breaking; localised core hole
	MC&91	286-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_x & C_2D_x (isotope eff.)
	RA&92	284-286	P	high. res. (<90meV); vibn'l; comp. to C_2H_4
	KI&95b	283-291	P	40 meV fwhm; π* vibn's in isotopomers; hole localiz.
	KG&97	283-287	T	vibronic coupling; symmetry breaking and core hole localization; comparison of isotopomers (C_2D_4, C_2H_4,CH_2CD_2, cis-CHDCHD)
C_2D_6	MC&91	287-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_x & C_2D_x (isotope eff.)
	RDK93	286-291	P	high res (60 meV); comp. of CH_4/CD_4; C_2H_6/C_2D_6; C_3H_8/C_3D_8
C_2FH_3	BB&85	280-296	P	parent ion yields, distorted cont./discrete intensities; QMS
	MC&87	275-325	E	absolute, comp. to $_{C2}H_xF_{4-x}$, development of pot. bar.
	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	BMT88	280-310	E	comp. to ETS
	RI&88	275-325	E	perfluoro effect, σ*(C-F)
	SKB88	275-320	E	high res., comp. to vinyl halides
$C_2FeN_2O_4$	SL&92	280-300	P	$Fe(CO)_2(NO)_2$; PEPIPICO; stewise fragmentation; non-selective
	ML&93	285-320	P	ionic fragmentation mechanisms; comp. of CO_2, N_2O, $Fe(CO_2(NO)_2$
	L95	320	P,R	PEPIPICO dissoc.; review of coinc. studies of DI dynamics
	NM96	320	P,R	PEPIPICO; review of fragmentation
$C_2F_2H_2$	BB&85	280-296	P	1,1-CH_2=CF_2, parent IY; distorted cont./discrete intens; QMS
	HC&87b	288-325	P	thr. e-, TOF-MS, claims selective fragmentation
	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	MC&87	275-325	E	absolute, comp. to $C_2H_xF_{4-x}$, C-F σ* res., pot. bar.
($C_2F_2H_2$ cont'd)	RI&88	275-325	E	perfluoro effect, σ*(C-F)
	JS&90	285-306	P	ZEKE, PE-PI coinc.; sel. frag.; comp. of CF_2CH_2, CF_3CH_3
	HB&91	285-310	P	ZEKE, TEY, TIY; TOF-MS; site-selective frag.; "memory-eff."
$C_2F_2H_2$	MC&87	275-325	E	1,2-CHF=CHF; absolute, comp. to $C_2H_xF_{4-x}$, C-F σ* res., pot. bar.
C_2F_3H	BB&85	280-296	P	parent ion yields, distorted cont./discrete intensities; QMS
	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	MC&87	275-325	E	absolute, comp. to $C_2H_xF_{4-x}$, $C_2H_xF_{4-x}$, pot. bar.
	RI&88	275-325	E	perfluoro effect, σ*(C-F)
$C_2F_3HO_2$	RI&88	280-330	E	CF_3COOH, comp. to other acids
$C_2F_3H_3$	MS&84	280-309	P	CH_3CF_3; thr. e^-, total & partial yield, site sel. frag.
	BB&85	280-296	P	parent ion yields, distorted cont./discrete intensities; QMS
	H90a	284-316	E	absolute; comp. of C_2H_6, CH_3CF_3, C_2F_6; partial pot. barr.
	JS&90	285-306	P	ZEKE, PE-PI coinc.; sel. frag.; comp. of CF_2CH_2, CF_3CH_3
	HB&91	285-310	P	ZEKE, TEY, TIY; TOF-MS; site-selective frag.; "memory-eff."
	SSL91	290-300	T	site-selective frag. at CF_3; but stat. redist. int. energy in M^{2+}
$C_2F_3H_4N$	HC&87b	278-305	P	$CF_3CH_2NH_2$, thr. e-, TOF-MS, claims selective fragmentation
C_2F_3N	HS90	280-340	E	CF_3CN, absolute; comp. to other triply bonded species
C_2F_4	BB&85	280-296	P	parent ion yields, distorted cont./discrete intensities; QMS
	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	MC&87	275-325	E	absolute, comp. to $C_2H_xF_{4-x}$, C-F σ* res.
	RI&88	275-325	E	perfluoro effect, σ*(C-F)

	H90a	290-320	E,R	absolute, pot. bar. effect on I{σ*(C-F)} through CF_x series
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
C_2F_6	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	IM&88	275-325	E	C-F σ* res.
	H90a	284-320	E	absolute; comp. of C_2H_6, CH_3CF_3, C_2F_6 and CF_x; pot. barr.
	AC&95	290-315	T	STEX ab initio; absolute; growth of poly $(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
$C_2F_6O_2$	H86b	285-335	E,R	orbital mapping
	MI&87	285-335	E	CF_3-O-O-CF_3, long O-O bond = low σ*
	HM&89	275-350	P	absolute; total, partial ion yields; PIPICO, diss. IY; sel. frag.
C_2H_2	EH&76	280-300	P	photoelectric yield
	HB77	280-340	E	cont. res.
	IKN78	280-330	T	ab initio calc., comp. to experiment (WBW73)
	TKR79	285-291	E	<70meV FWHM res., vibrational structure
	BB&80	285-320	T	ab initio calc. with CI, shake-up states
	HB81a	280-315	E	absence of plural scattering (pressure study)
	B81	280-355	P	cont. res. at 310 eV (vs 309 EELS), related to bond length
	B82b	280-355	P	cont. res. at 310 eV (vs 309 EELS), related to bond length
	ML&82	290-330	T	moment theory, shape of cont. res., comp. to expt. (HB77)
	SSH84a	295	T	σ*-res./bond length relationship
	HK87	283-293	E	Eo=120 eV, no triplets resolved, π* broader, Rydbergs modified
	AR&89	280-320	P,E,T	curve fit of HB77; comp. to NEXAFS; theor. (SW) lineshape; multi e-
	SG&89	290-330	T	σ* shape res.; position & shape as f(R); approx. cyl. well & ab initio
	ACS90	290	E	binary (e,2e), EMS; 5 eV fwhm; BE is 0.5(2) eV higher than XPS
	FSL91	290-390	T	absolute; L^2, delocal. hole; C_2H_x (x=2,4,6); σ*(C-H)/σ*(C-C) reversal
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	MC&91	284-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_2&C_2D_2 (isotope effect)
	RA&92	280-302	P	comp. of gas,sol, monolayer (Ag); Ryd. lost in cond. phase; IP shift
	S92	280-330	E,R	comp. of C_2H_x, x=2,4,6; σ*(C-C)
	FE&94	284-286	E,T	^{3}π*; INDO calc; correl. of Δ(1,3) and π* osc. str.
	HM94	270-350	E,R	absolute; improved method for X-section detection; this bibliography!!
	MB&94a	280-292	E,T	GOS for ^{1}π*; relax., corr. & core-hole local. considered; OOS=0.147
(C_2H_2 cont'd)	NB95	284-292	T	coupled cluster abi initio; S-T splittings of Rydberg states
	STS95	284-310	T	local density; Hedin-Lundquist potential needed to match expt.
	HC96	285-286	T	DFT calc.; ^{3}π-^{1}π split = 0.50 eV
	SST96	285-315	T	constant chemical potential LDA; π*, σ* res. rel. position; comp. of π-σ sep. in CO, C_2H_2, C_2H_4, N_2, O_2
	KI&97	282-292	P,T	high res. (20 meV); isotopomer comp.; vibronic coupling at π*; bending modes excited; ab initio calc.
	KK&97a	280-350	P	main line cross-sections; comp. to absorption; weak peak at C_2H_2 abs. max; comp. of C_2H_x, x=2,4,6; disputing existence of shape resonances
	KK&97b	290-360	P,T	absolute; C $1s_{-1}$ main line & satellite X-sections; broad 310 eV peak assigned to shake-up NOT σ*; smooth main line β at 310 eV 6 no σ*
	KK&97c	298, 338	P,T	XPS, g-u splitting = 0.05(1) eV; vibrational and 2 state fit
	KN&97b	280-340	P	resonance Auger, well-resolved Rydberg spectrum; angle resolved; π*,σ* anisotropic; double excitation
	TPA98	280-320	T	absolute; DFT vs. STEX, comparison of C_2H_{2x}, x=1,2,3; comp. to C_2H_2/Cu
	GG&99	284-292	P,T	core hole localization in C_2H_{2x}; symmetry broken X-ray emission; HF calc; localization increases with increasing bond length
	KK&99	290-360	P	absolute; main line partial cross-sections; disputes shape resonance in C_2H_6
	TB&99	297-348	P,T	σ_g & σ_u partial X-sections; resonance in ratio of X-sect.; disputes KK&97b
	HC&00	280-340	T	shape resonances from MS (Feff8) in C_2H_{2x}; ang. dep; IPs good to 0.5 eV
	LL00	290-360	T	absolute; partial channel; β; comp. to KK&97a; σ* overlaps 2-electron

	HJ&02	278-330	E,T	absolute GOS; calculated strong quadrupole π* not observed
	K02	284-298	P,TR	symmetry resolved, high resolution; review
	PS&02	284-320	P	PIY, fragmentation mechanisms; Rydergs versus shape resonances
$C_2H_2O_2S_4$	TV93	285-295	T	$(OHCS_2)_2$; ab initio-SCF-EICVOM; pre-edge res. (π*, σ^*_{O-O},σ^*_{S-S})
C_2H_3I	BMT88	280-310	E	comp. to ETS
	SBK88	275-320	E	high res., comp. to vinyl halides
C_2H_3N	HTM89	275-325	E,P	(CH_3CN), comp. to solid, σ* res./bond length
	HM&89	275-350	P	absolute; total, partial ion yields; PIPICO, diss. IY; sel. frag.
	S92	280-320	E,R	comp. of gas, sol. monolayer(Pt)
C_2H_3N	HTM89	275-340	E	(CH_3NC), comp to CH_3CN, vibrational ELS
C_2H_3NS	HTM89	275-340	E	(CH_3SCN), comp to CH_3NCS, vibrational ELS
C_2H_3NS	HTM89	275-340	E	(CH_3NCS), comp to CH_3SCN, vibrational ELS
C_2H_4	EH&76	280-300	P	photoelectric yield
	HB77	280-340	E	vibrational structure, cont. res.
	TKR79	284-291	E	<70meV FWHM res., vibrational structure
	BB&80	285-320	T	ab initio calc. with CI, shake-up states
	B81	280-355	P	cont. res. at 306 eV (vs 302 EELS(HB77)), related to bond length
	B82b	280-355	P	cont. res. at 306 eV (vs 302 EELS(HB77)), related to bond length
	SSH84a	295	T	σ*-res./bond length relationship
	HR87	280-300	E	use of core excitation (HB77) to interpret Auger satellites (DES)
	MC&87	275-325	E	absolute, comp. to $C_2H_xF_{4-x}$
	SS87b	269-324	P	8% modulation of W-value (energy/ion pair); Ryd., cont. struct; weak π*, prominent σ*, PCI
	BMT88	280-310	E	comp. to ETS
	H89	280-320	E,R	review of electron-beam core excitation spectroscopies (Aussois)
	MF&88	280-320	P	ZEKE; XPS-sat & EELS/PA, higher Ryd., 2e & shake-up, PCI
	RI&88	275-325	E	absolute, perfluoro effect, σ*(C-F)
	SBK88	275-320	E	high res., comp. to vinyl halides
	AR&89	280-320	P,E,T	curve fit of HB77; comp. to NEXAFS; theor. (SW) lineshape
	MS&89	284-887	P	30 meV fwhm, vibn's; comp. to C_2D_4, sym. breakdown, local. hole
	PF&89	280-360	P	partial X-sect., σ* at 302 eV
(C_2H_4 cont'd)	CS90	284-287	P	π* vib'nl isotope effect; symmetry breaking; localised core hole
	HS&90	284-292	P	0.15 eV fwhm; vib'ns of Rydbergs discussed
	MS&90	284-287	P	π* vib'nl isotope effect; symmetry breaking; localised core hole
	FSL91	290-390	T	absolute; L^2, delocal. hole; C_2H_x (x=2,4,6); σ*(C-H)/σ*(C-C) reversal
	GK&91	283-291	P,T	40 meV fwhm; ($^1B_{1u}$,$^1B_{2g}$) vibronic coupling; 0.02 eV sep.; dynamic hole localisation by vibronic-coupled symmetry breaking
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	MC&91	284-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_x & C_2D_x (isotope eff.)
	TF&91	280-300	T	MS (cluster); calc. of pol. dep. on Cu(100); C-H res. (288 eV) with σ-pol.; comp. to expt. (SSH84a)
	RA&92	284-286	P	high. res. (<90meV); vibn'l; comp. to C_2D_4; M-C_2H_4 bond mod. vib.
	S92	280-330	E,R	comp. of C_2H_x, x=2,4,6; σ*(C-C)
	KS&93	290-350	P	absolute; partial PI, β; no conjugate shake-up; shape res. pos. @ 295.5 eV, below absorption SR
	LA93	282-292	T	1-particle Green's function; comp. of C_2H_4, C_4H_6,C_6H_8;comp. to GK&91 (solid); claims relaxation shifts dominate; π* split small.
	FE&94	284-287	E,T	^{3}π*; INDO calc; correl. of Δ(1,3) and π* osc. str.
	MB&94b	285	T	vibrational structure; comp. to expt.
	C95	285	T	core hole localisation via vibronic coupling; lifetime effects
	GA95	284-290	T	delocalization in polyenes; comp. of H-$(CH=CH)_n$-H, n=1-5
	KI&95b	283-291	P	40 meV fwhm; π* vibn's in isotopomers; hole localiz.

	NB95	284-292	T	coupled cluster abi initio; S-T splittings of Rydberg states
	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
	HC96	285	T	DFT calc.; $^3\pi$-$^1\pi$ split = 0.43 eV
	SB&96	290-350	T,R	absolute, partial cross-sections; comp. to expt.
	SST96	285-315	T	constant chemical potential LDA; π*, σ* res. rel. position; comp. of π-σ sep. in CO, C_2H_2, C_2H_4, N_2, O_2
	YA96	290-315	T	STEX; shake-up spectra related to NEXAFS; $H(C_2H_2)_nH$, n=1-5
	AJ&97a	284-292	P	relative, 35 meV; Rydberg vibrational structure
	KG&97	283-287	T	vibronic coupling; symmetry breaking and core hole localization; comparison of isotopomers (C_2D_4, C_2H_4,CH_2CD_2, cis-CHDCHD)
	KK&97a	280-350	P	main line cross-sections; comp. to absorption; weak peak at C_2H_4 abs. max; comp. of C_2H_x, x=2,4,6; disputing existence of shape resonances
	KK&98c	284-350	P	absorption; PES; $C1s^{-1}$ & satellite partials; disputes shape resonance
	TPA98	280-320	T	absolute; DFT vs. STEX, comparison of C_2H_{2x}, x=1,2,3
	GG&99	284-292	P,T	core hole localization in C_2H_{2x}; symmetry broken X-ray emission; HF calc; localization increases with increasing bond length
	KK&99	290-360	P	absolute; main line partial cross-sections; disputes shape resonance in C_2H_6
	SW&98	280-320	P	TIY; vibr'nlly resolved PES; SR perturbs at 304; disputes KK&97a
	NG99	284-286	T	ab initio-CI; vibrations; non-TS modes; localized core hole; symmetry breaking needed to fit experiment
	HC&00	280-340	T	shape resonances from MS (Feff8) in C_2H_{2x}; ang. dep; IPs good to 0.5 eV
	RB00	285-289	T	absolute; GMS-ab initio; GOS for π*, Ryd
	HJ&02	278-322	E,T	absolute GOS; calculated strong quadrupole π* not observed
	K02	284-298	P,TR	symmetry resolved, high resolution; review
	PS&02	284-320	P	PIY, fragmentation mechanisms; Rydergs versus shape resonances
$(C_2H_4)_n$	RS&92b	280-320	P	clustered ethylene; comp. of partial, total yield channels
	HR96	282-296	P,R	clustered ethylene; comp. of partial, total yield channels
C_2H_4O	HB80b	280-320	E	(CH_3CHO - acetaldehyde) cont. res.
	SSH84a	295	T	σ*-res./bond length relationship
	YA&96	280-320	T	STEX; comp. to expt. and other theory; R_2CO species
	YA&97	287	T	π* OS; test of initial and final state sum rules; comp to expt.
	TJ&99	284-300	P	relative; TIY; participator decay; 2 states in π*
C_2H_4O	SB91a	280-410	P	ethylene oxide; high res.; Ryd. vib'nl resolved; comp to C_3H_6
$C_2H_4O_2$	ES84	270-310	P	(CH_3COOH, acetic acid), partial & total ion yields, mass spectra
	RI&88	270-330	E	C-F σ* res., absolute, perfluoro effect
	S92	280-325	E,R	comp. of HCO_2H, HCO_2CH_3 and PMMA nEXAFS
$C_2H_4O_2$	IH88	275-325	E	$HCOOCH_3$, methyl formate, absolute, spectral aditivity tested
	JT94b	275-316	E,T	ISEELS as f(resolution); DES by (e,2e); strong participator
$C_2H_5NO_2$	PC&98	285-315	T	glycine; STEX; comp. of NEXAFS and circ. Dichroism of amino acids
	GC&03	283-310	E,T	absolute, comp Gly, Gly-Gly; tri-gly; peptide bonds; GSCF3
$C_2H_5N_3O_2$	UA&99	280-340	E	biuret; ($NH_2(CO)NH(CO)NH_2$); absolute; polymer model
	LCH03	280-320	E,T	comp.of di-carbonyls; charge shifts for fingerprinting, GSCF3
C_2H_6	EH&76	280-300	P	photoelectric yield
	HB77	280-340	E	comp. to CH_4 & EH&76 C_2H_6 data
	HB&84	280-320	E	comp. to CH_4 (WB74b), (HB77) data, σ*(C-C) res. at thr.
	SSH84a	295	T	σ*-res./bond length relationship
	HI87	275-325	E	π*(CH_3), comp. to other alkanes
	HR87	280-300	E	use of core excitation (HB77) to interpret Auger satellites (DES)
	IM&88	275-325	E	absolute OS, comp. to C_2F_6
	AR&89	280-320	P,E,T	curve fit of HB77; comp. to NEXAFS; theor. asymmetric σ* lineshape
	SG&89	290-330	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	H90a	284-316	E,R	absolute; comp. of C_2H_6, CH_3CF_3, C_2F_6; partial pot. barr.
	FSL91	290-390	T	absolute; L^2, delocal. hole; C_2H_x (x=2,4,6); σ*(C-H)/σ*(C-C) reversal

	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	MC&91	284-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_x & C_2D_x (isotope eff)
	S92	280-320	T,R	MS-Xα; comp. of propane, ethane
	RDK93	286-291	P	high res (60 meV); comp. of CH_4/CD_4; C_2H_6/C_2D_6; C_3H_8/C_3D_8
	KK&97a	280-350	P	main line cross-sections; comp. to absorption; no peak at claimed position of σ* in abs. (but main line cross-section does not reach); comp. of C_2H_x, x=2,4,6; disputing existence of shape resonances
	TPA98	280-320	T	absolute; DFT vs. STEX, comparison of C_2H_{2x}, x=1,2,3
	GG&99	284-292	P,T	core hole localization in C_2H_{2x}; symmetry broken X-ray emission; HF calc; localization increases with increasing bond length
	KK&99	290-360	P	absolute; main line partial cross-sections; disputes shape resonance in C_2H_6
	RK&99	250-560	P	absolute; true absorption; vibn'l resolved PES; $C1s^{-1}$, Sat., X-sect
	HC&00	280-340	T	shape resonances from MS (Feff8) in C_2H_{2x}; ang. dep; IPs good to 0.5 eV
C_2H_6O	WB74b	285-325	E	(CH_3OCH_3 - dimethyl ether)
	SSH84a	295	T	σ*-res./bond length relationship
	SY&89	280-320	P	comp to EELS, lower discrete/cont.; cont. flatter, O1s 2nd order
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
C_2H_6O	SY&89	280-320	P	(C_2H_5OH), lower discrete/cont. ratio, cont. flatter, O1s 2nd order
$C_2H_6O_2$	EUH98	280-320	E	ethylene glycol; (CH_2OH-CH_2OH); absolute; comp to PEO
$C_2H_6O_3$	HW&91	280-340	E	$(CH_3O)_2C=O$; absolute; comp. to phenyl carbonate
C_2H_6OS	TB&88	280-320	E	$(CH_3)_2S=O$, DMSO, comp. to S1s
C_2H_7N	SB85b	285-335	E	σ* res. at thr., comp. to $(CH_3)_xNH_{3-x}$,x=0-3
C_2N_2	HB79b	280-320	E	cont. res.
	SSH84a	295	T	σ*-res./bond length relationship
	SG&89	290-330	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
C_3D_8	RDK93	286-291	P	high res (60 meV); comp. of CH_4/CD_4; C_2H_6/C_2D_6; C_3H_8/C_3D_8
C_3F_3H	HS90	280-340	E	$CF_3C:::CH$, absolute; comp. to other triply bonded species
$C_3F_3H_3O$	HC&87b	280-310	P	CF_3COCH_3, thr. e-, TOF-MS, claims selective fragmentation
C_3F_6O	RI&88	280-325	E	(perfluoroacetone), C-F σ* res., absolute, perfluoro effect
C_3F_6	IM&88	275-325	E	perfluoro-cyclopropane, C_xF_{2n} series, σ*(C-F) dominated
C_3F_8	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	IM&88	275-325	E	perfluoropropane, C_xF_{2n+2} series, σ*(C-F) dominated
$C_3H_2O_2$	IH88	275-325	E	(propiolic acid), comp. to solid, absolute
C_3H_3	SC95	288	T	c-$C_3H_3^+$;ADC local/delocal calc; Jahn-Teller localis.; comp. to $B_3H_3N_6$
C_3H_3N	MB&94b	280-320	P,T	C_2H_3CN - acrylonitrile; <100 mV fwhm; ab initio; vibrational structure; comp. of C_2H_4, C_3H_3N,C_4H_6,C_4H_8
	HA&97	282-307	E,T	relative; 0.25 eV fwhm; Z+1 calc'n; π* interactions; comp. of CH_2=CHCN, $C_2H_2(CN)_2$, CH_2=$CHCH_2CN$
$C_3H_3N_3$	AGH93	280-320	E	s-triazine; absolute; comp. to solid
C_3H_4	SB85a	280-320	E	$CH_2=C=CH_2$ (allene), 0.11eV FWHM, unusual cont. structure
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	S92	275-325	T,R	MS-Xα; comp. to allene on Ag(110)
C_3H_4	HI88a	275-325	E	$CH_3C:::CH$, propyne, absolute, reference for perfluoro effect
	HS90	280-340	E	absolute; comp. to other triply bonded species
	S92	280-320	E,T,R	MS-Xα; comp to 2,4-hexadiyne
$C_3H_4N_2$	AGH93	280-320	E,P	imidazole; absolute; gas-EELS; comp. to sol.-NEXAFS
	CPA01	280-310	T	STEX with screening; comp. to expt. (AGH93)
$C_3H_4N_2$	DH&98	280-330	E,T	pyrazole, relative, 0.2 eV fwhm, Z+1 HONDO, pyyrole vs. pyrazole
C_3H_4O	IH88	275-325	E	(propiolic alcohol), comp. to solid, absolute, group analysis
C_3H_4O	SB92	280-320	E	ethylene oxide; high. res.; comp. to cyclopropane
C_3H_4O	DF&03	280-320	E	CH2=CH-CHO, acrolein; π* delocalisation; ab initio GAMES
$C_3H_4O_2$	IH88	275-325	E	(acrylic acid), comp. to solid, absolute, group analysis

C_3H_6	H86b	280-320	E,R	(cyclopropane), comp. to propane
	HN&86	275-325	E	comp. to other cyclics
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	SB91a	280-410	P	high res.; Ryd. vib'nl resolved; comp to C_2H_4O
	S92	280-320	E,T,R	MS-Xα; comp. of cyclic-C_n alkanes
	SB92	280-320	E	ethylene oxide; high. res.; comp. to cyclopropane
	FL96	282-294	T	absolute; ΔSCF-CI; comp. to XPS shake-up and expt. [S92]; n-C_nH_{2n}, n=3,4,5,6 compared
C_3H_6	HS90	280-340	E	propene; absolute; comp. to calc. (S92)
	S92	280-320	T,R	MS-Xα; site-selected calc.
$C_3H_6NO_2$	GH01	280-320	E	alanine; absolute; comp of amino acids
$C_3H_6NO_2S$	PC&98	285-315	T	cysteine; (D-,L) STEX; comp. of NEXAFS, circ. Dichr. of amino acids
$C_3H_6N_2O_2$	LCH03	280-320	E,T	malonamide; comp.of di-carbonyls; charge shifts for fingerprinting, GSCF3
C_3H_6O	IH88	275-325	E	(acrylic alcohol), comp. to solid, absolute, group analysis
C_3H_6O	WB74c	282-328	E	($(CH_3)_2CO$ - acetone)
	HB80b	280-320	E	cont. res.
	ES&83a	275-312	P	photoionization mass spectrometry, site-selective fragmentation
	ES84	275-312	P	partial & total IY; mass spectra, site-selective fragmentation
	ES&84	275-315	P	photoionization mass spectrometry, site-selective fragmentation
	SSH84a	295	T	σ*-res./bond length relationship
	RI&88	270-330	E	absolute, comp. to $(CF_3)_2C=O$ re perfluro effect
	SY&89	280-320	P	comp to EELS, lower discrete/cont.; cont. flatter, O1s 2nd order
	TPA98	280-320	T	absolute; DFT vs. STEX, compares CO and R_2CO, R = H, Me
	TJ&99a	284-297	P,T	absolute; resonant Auger; STEX calc.
	TJ&99b	284-300	P	relative, TIY
	SS00	280-320	P	TIY, PIY; weak site or state selective fragmentation
C_3H_6O	YA&96	280-320	T	propaldehyde; absolute; STEX; R_2CO comparison
	YA&97	287	T	π* OS; test of initial and final state sum rules; comp to expt.
	TJ&99b	284-300	P	relative, TIY
$C_3H_6O_2$	IH88	275-325	E	(propionic acid), comp. to solid, absolute, group analysis
$C_3H_6O_3$	HW&91	275-325	E	$(CH_3O)_2C=O$, methyl carbonate; absolute, comp. to PEELS
$C_3H_6O_3$	H01	280-320	E	lactic acid; Me(CHOH(COOH); absolute
$C_3H_7NO_2$	UH&95a	280-320	E,T	NH_2CO_2Et, urethane; absolute; comp. to model polyurethane polymers
	UH&95b	280-320	E,T	NH_2CO_2Et, urethane; absolute; EHMO; dist. urethane & ureas
$C_3H_7NO_2$	PC&98	285-315	T	alanine; (D-,L-) STEX; comp. of NEXAFS, circ. Dichr.of amino acids
$C_3H_7NO_3$	PC&98	285-315	T	serine; (D-,L-) STEX; comp. of NEXAFS, circ. Dichr. of amino acids
C_3H_8	SS85	260-360	P	5% modulation in W (energy/ion pair); roughly matches abs; PCI
	H86b	280-320	E,R	(propane), comp. of n-alkanes
	HI87	275-325	E	comp. of saturated alkanes
	SO&87	285-310	T	Xα-SW, molecular orientation
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	S92	280-320	T,R	MS-Xα; comp. of propane, ethane
	RDK93	286-291	P	high res (60 meV); comp. of CH_4/CD_4; C_2H_6/C_2D_6; C_3H_8/C_3D_8
	VF&98	285-320	T	comp. to HI87, Xα-SW; long-chain alkanes; σ* along C-C bonds
	WBW99	280-320	T	ab initio ΔSCF; comp to solid & clusters; conformational dep; Ryd persist in condensed phase
C_3H_8O	IH88	275-325	E	(n-propanol), absolute, group analysis
	TH&98	285-295	P	threshold e-; TIY; TPEPICO; triple coinc; isomer study
C_3H_8O	TH&98	285-295	P	(isoproponol); threshold e-; TIY; TPEPICO; triple coinc; isomer study
$C_3H_8O_2$	LB764	30-620	P	($CH_2(OCH_3)_2$ - methylal), absolute
$C_3H_8O_2$	EUH98	280-320	E	1,2-propane diol; absolute; comp to PPO
C_3H_9P	SB85c	280-330	E	$(Me)_3P$
	HH&98	284-304	E	absolute; comp. to $(t\text{-}Bu)_2PCl$

C_3H_9N	SB85b	285-335	E	$(Me)_3N$, σ* res. at thr., comp. to $(CH_3)_xNH_{3-x}$,x=0-3
$C_3H_7NO_2$	UH&95b	280-330	E	NH2-CO_2Et, absolute; modelling of polyurethane PEELS
$C_4F_3H_9O_3SSi$	UH94a	280-330	E	$Me_3SiOSO_2CF_3$; comp of Si-O-X species; inductive, resonance effects
C_4F_6	MC&87	275-325	E	perfluorobutadiene, absolute
	RI&88	275-325	E	absolute, comp. to C_4H_6 re perfluoro effect
C_4F_6	RI&88	275-325	E	$CF_3C:::CCF_3$, comp. to C_4H_6, perfluoro effect
C_4F_8	HB&84	280-325	E	($CF_3CFCFCF_3$) - strong σ*(C-F) res.
	SSH84b	290-300	T	test of bond length determination from σ* res.
	RI&88	280-340	E	reassigned HB&84
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
C_4F_8	IM&88	275-325	E	perfluoro-cyclobutane, C_xF_{2x} series, σ*(C-F) dominated
C_4F_{10}	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	IM&88	275-325	E	perfluorobutane, absolute, comp to C_xF_{x+2}
	AC&95	290-315	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
$C_4H_2N_2$	HA&97	282-307	E,T	trans-dicyanoethylene; relative; 0.25 eV fwhm; Z+1 calc'n; π* interactions; comp. of CH_2=CHCN, $C_2H_2(CN)_2$, CH_2=$CHCH_2CN$
$C_4H_4N_2$	HD&99	280-315	E,T	pyridazine; 0.2 eV fwhm; Z+1 calc; comp to pyridine; s-triazine
C_4H_4O	NIH86	275-325	E	(furan)
	SMS91	280-320	E,P	comp of gas, monolayer on Ag(110); curve fits
	RH&02	285-292	P	partial electron yield; comp. to EELS (NIH86); Auger, XPS
C_4H_4S	H86b	275-325	E,R	(thiophene), comp. to thiolane, other heterocyclics
	HNS86	275-325	E,P	comp. to thiolane, solid, monolayer; MS-Xα calc
	HT&90	275-325	E	absolute, 3-alkyl-thiophenes; no mod. of π* (cf. polymer cond.)
	HE91	(white)	P	(hv;e_{Auger},ion) coinc.; mass spectra at C1s, S2p with Auger
C_4H_4Se	HTB89	275-325	E	(selenophene), comp to solid
C_4H_5N	HA&97	282-307	E,T	allyl-cyanide; relative; 0.25 eV fwhm; Z+1 calc'n; π* interactions; comp. of CH_2=CHCN, $C_2H_2(CN)_2$, CH_2=$CHCH_2CN$
C_4H_5N	NIH86	275-325	E	(pyrrole)
	DH&98	280-330	E,T	relative, 0.2 eV fwhm, Z+1 HONDO, pyyrole vs. pyrazole
C_4H_6	HB&84	280-325	E	(trans-1,3-butadiene $CH_2CHCHCH_2$)
	SB85a	280-320	E	0.07eVFWHM, two π* levels observed
	L86	284-290	T	HAM/3 electron affinities, reassigned π* levels, comp. to HB&84
	MC&87	284-296	E	comp. to C_4F_6, reassigned 1s6π*s
	RI&88	275-325	E	absolute, comp. to C_4H_6 re perfluoro effect
	NS&92	280-330	P,T	ab initio, π* vibn'l struct.; comp. to sol NEXAFS, re-assigns HB&84
	S92	280-320	E,R	comp. to polymer NEXAFS
	LA93	282-292	T	1-particle Green's function; comp. of C_2H_4, C_4H_6,C_6H_8; comp. to NS&92 (solid); claims relaxation shifts dominate; π* split small.
	MB&94b	280-320	P,T	<100 mV fwhm; ab initio; vibrn=l str.; comp. of C_2H_4, C_3H_3N,C_4H_6,C_4H_8
	GA95	284-290	T	delocalization in polyenes; comp. of H-$(CH=CH)_n$-H, n=1-5
	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
	YA96	290-315	T	STEX; shake-up spectra related to NEXAFS; $H(C_2H_2)_nH$, n=1-5
	SO&96	284-286	P,T	decay of π* states; site selective; INDO calc.
	AJ&97a	283-292	P	relative; 0.6 eVsplit of π*(CH_2=, =CH-); vibrational resolved
	CPA01	280-320	T	STEX with screening; comp. to expt. (NS&92)
C_4H_6	RI&88	275-325	E	$CH_3C:::CCH_3$, 2-butyne, absolute, ref. per-F-2-butyne re per-F eff.
	S92	280-320	E,R	comp. to polymer NEXAFS
$C_4H_6O_3$	LCH03	280-320	E,T	acetic anhydride; di-carbonyls; charge shifts for fingerprinting, GSCF3
$C_4H_6O_5$	LCH03	280-320	E,T	MeO(CO)O(CO)OMe; di-carbonyls; charge shifts, GSCF3
$C_4H_7NO_2$	LCH03	280-320	E,T	Me(CO)N(CO)Me; di-acetamide; di-carbonyls; charge shifts, GSCF3
$C_4H_7O_4$	UA&99	280-320	E	ethyl allophanate (NH_2(CO)O(CO)OEt); absolute; polymer model

C_4H_8	HB&84	280-325	E	(1-butene $CH_2CHCH_2CH_3$)
	MB&94b	280-320	P,T	<100 mV fwhm; ab initio; vib. structure; comp. of C_2H_4, C_3H_3N,C_4H_6,C_4H_8
	FL96	282-294	T	absolute; ΔSCF-CI; comp. to XPS shake-up and expt. [S92]; n-C_nH_{2n}, n=3,4,5,6 compared
C_4H_8	HB&84	280-325	E	(cis-2-butene $CH_3CHCHCH_3$)
C_4H_8	HB&84	280-325	E	(trans-2-butene $CH_3CHCHCH_3$)
C_4H_8	HN&86	275-325	EPT	(cyclobutane), comp. to other cyclics, sol., calc., E(σ*)αR
	H86	280-320	E,R	comp. to n-butane
	S92	280-320	E,R	comp. to polymer NEXAFS
$C_4H_8N_2O_2$	UH&99	280-320	E,T	ehthyl allophanate; absolute; GSCF3; comp. of urethane species
$C_4H_8N_2O_3$	GC&03	283-310	E,T	absolute, comp Gly, Gly-Gly; tri-gly(s); peptide bonds; GSCF3
C_4H_8O	NIH86	275-325	E	(tetrahydrofuran)
	SY&89	280-320	P	comp to EELS, lower discrete/cont.;cont. flatter, O1s 2nd order
C_4H_8O	YA&96	280-320	T	iso-butaldehyde; absolute; STEX; R_2CO comparison
	YA&97	287	T	π* OS; test of initial and final state sum rules; comp to expt.
$C_4H_8O_2$	SY&89	280-320	P	(p-dioxane), lower discrete/cont.; cont. flatter, O1s 2nd order
C_4H_8S	H86b	275-325	E,R	(thiolane), comp. to thiophene, other heterocyclics
	HNS86	275-325	E,P	σ*(C-S), comp. to C_4H_4S
	HE91	(white)	P	(hv;e_{Auger},ion) coinc.; mass spectra at C1s, S2p with Auger
C_4H_9N	NIH86	275-325	E	(pyrrolidine)
C_4H_{10}	HI87	275-325	E	n-butane
	H86	280-320	E,R	comp. to cyclo-butane
	S92	280-320	E,T,R	MS-Xα; comp. of cyclic-C_n alkanes
	WBW99	280-320	T	ab initio ΔSCF; comp to solid & clusters; conformational dep; Ryd persist in condensed phase
C_4H_{10}	HI87	275-325	E	iso-butane
$C_4H_{10}O$	MI&87	275-325	E	t-butanol, comp. to t-butyl-peroxide
$C_4H_{10}O$	SY&89	280-320	P	diethyl-ether, lower discrete/cont.; cont. flatter, O1s 2nd order
	UH&95b	280-320	E,T	absolute; EHMO; comp. to polyurethanes
	FB02	280-360	E	absolute; sum rule checked
$C_4H_{12}OSi$	UH94a	280-330	E	$Me_3Si(OMe)$;comp of Si-O-X species; inductive, resonance effects
	UT&97	283-303	P	absolute; Si-Si & Si-O-R
$C_4H_{12}Pb$	NK&89	50-600	P	$Pb(CH_3)_4$; total & partial ion d; no C1s signal (!); contaminated optics; core-site dependent fragmentation
$C_4H_{12}Si$	SD&84	280-380	E	$(Me)_4Si$-TMS, methane-like spectrum
	SD&85	280-380	E	methane-like spectrum
	W92	280-320	E	absolute; comp. of $Si(CH_3)_4$, $Si_2(CH_3)_6$ and $Si_6(CH_3)_6$; σ*(Si-Si)
	UX&94	280-330	E	absolute; comp. of edges of Si-Si compounds
$C_4H_{12}OSi$	UH94a	280-330	E	$Me_3Si(OMe)$;comp of Si-O-X species; inductive, resonance effects
C_4NiO_4	CSB89	280-335	E	$Ni(CO)_4$, high res., comp. to CO; vibrations resolved on π*
	H90a	280-325	E,R	absolute; comp. to TM-COs; relaxation and δ(R) for σ*(CO)
	HWR90a	280-325	E	absolute; comp. to TM-COs; f(π*) vs. extent of backbonding
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
C_4N_2O	UH&95b	280-320	E,T	$(NH_2)_2C=O$, urea; absolute; EHMO; comp. to polyurethanes
$C_5Cl_3H_5Ti$	WH93	280-335	E	$CpTiCl_3$, abs. comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
C_5F_8	RI&88	280-330	E	perfluor-cyclopentene, absolute
C_5F_{10}	IM&88	280-330	E	perfluoro-cyclopentane, comp. to per-F c-C_2H_{2n+2}; strong σ*(C-F)
C_5F_{12}	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	IM&88	275-325	E	perfluoropentane, C_xF_{2x+2} series, σ*(C-F) dominated
C_5F_{12}	IM&88	275-325	E	perfluoro-neo-pentane, σ*(C-F) dom.; comp. to C_2F_6, extra σ*(C-F)
C_5FeO_5	EC&85	280-340	P	$Fe(CO)_5$, ion & electron yield, comp. to free CO, CO/Cu, $Cr(CO)_6$
	E87	280-340	P	ion yields, DES

	MSN89	270-520	P	total, partial ion yields; comp to CO, $Fe_2(CO)_9$; EXAFS?
	H90a	280-325	E,R	absolute; comp. to TM-COs; relaxation and δ(R) for σ^*(CO)
	HWR90a	280-325	E	absolute; comp. to TM-COs; f(π^*) vs. extent of backbonding
	HW&90	280-530	E	EXEFS, comp. to simulation, C,O distances detected
	H92b	284-298	E,T	comp of $^3\pi$-$^1\pi$ split. in CO and $Fe(CO)_5$ (1.30 eV); core hole relaxation investigated via EHMO calc
	WRH92	280-330	E	absolute, comp. to $CxFe(CO)_3$, $COTFe(CO)_3$, $Fe(Cp)_2$; mix. lig. effect
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
$C_5H_2N_4$	AGH93	280-320	E,P	dicyano-imidazole; absolute; gas-EELS; comp. to sol.-NEXAFS
	CPA01	395-428	T	STEX with screening; comp. to expt. (AGH93)
C_5H_5N	AV&85	285-305	P	(pyridine), absolute; comp. benzene,toluene & styrene; 1π^* 0.5eV split
	HS&85	275-330	E,P	gas,solid monolayer comp., π^* & σ^* res. Identified
	HD&99	280-315	E,T	0.2 eV fwhm; Z+1 calc; comp to pyridazine; s-triazine
	CPA01	280-320	T	STEX with screening; comp. to expt. (HS&85)
	KP&01	280-310	P,T	relative; high res – 65 meV; DFT; vibrations resolved; π^* intensities
C_5H_6	H90a	272-320	E,R	cyclopentadiene, comp to Fe,Co,Ni metallocenes
	RWH91	280-320	E	absolute, comp. of CpH, di-CpH, C_5H_8 re π^* of Cp^-
C_5H_6S	HT&90	280-330	E	3-Me-thiophene; absolute, comp. 3-alkylthiophenes; NEXAFS of poly.
C_5H_6Se	HTB89	275-325	E	(3-Me-selenophene), absolute, comp. to selenophene, solid
C_5H_8	H86b	280-320	E,R	comp. to solid, monolayer
	HN&86	275-325	E,P	(cyclopentene), σ^* res./bond length, solid, monolayer comp.
	RWH91	280-320	E	absolute, comp. of CpH, di-CpH, C_5H_8 re π^* of Cp^-
C_5H_8O	HI88a	275-325	E	(1,3-dihydropyran)
$C_5H_8O_2$	LCH03	280-320	E,T	Me(CO)Me(CO)Me; di-carbonyls; charge shifts, GSCF3
$C_5H_8O_4$	LCH03	280-320	E,T	MeO(CO)Me(CO)OMe; di-carbonyls; charge shifts, GSCF3
C_5H_{10}	HN&86	275-325	E,P	(cyclopentane), σ^* res./bond length, solid, monolayer comp.
	S92	280-320	E,T,R	MS-Xα; comp. of cyclic-C_n alkanes
C_5H_{10}	FL96	282-294	T	1-pentene; absolute; ΔSCF-CI; comp. to XPS shake-up and expt. [S92]; n-C_nH_{2n}, n=3,4,5,6 compared
$C_5H_{10}O$	NIH86	275-325	E	(tetrahydropyran)
$C_5H_{10}O$	YA&96	280-320	T	diethylketone; absolute; STEX; R_2CO comparison
	YA&97	287	T	π^* OS; test of initial and final state sum rules; comp to expt.
$C_5H_{10}N_2$	HE&01	280-305	E	methyl-carbene; thermal decomposition of tetra-amino ethylene
$C_5H_{11}N$	NIH86	275-325	E	(piperidine)
$C_5H_{11}NO_2$	PC&98	285-315	T	valine; (D-,L-) STEX; comp. of NEXAFS, circ. Dichroism of amino acids
C_5H_{12}	HI87	275-325	E	n-pentane
	LAL91	285-305	T	CNDO, systematic calc. of σ^* energies; ISEELS, ETS for param. det.
	S92	280-320	E,T,R	MS-Xα; comp. of cyclic-C_n alkanes
C_5H_{12}	HI87	275-325	E	iso-pentane
C_5H_{12}	HI87	275-325	E	neo-pentane
$C_5H_{14}O$	UHR95	280-320	E	sec-butyl ethyl ether; absolute
$C_5H_{14}OSi$	TC&02	280-320	E	Me3SiOEt; absolute; comp. to vinyl silanes
$C_5H_{15}NSi$	UH94b	280-330	E	$Me_3Si(NME_2)$; comp. of Si-N cmpds; models for SiN_xO_y films
C_5MnO_5H	HR89	280-320	E	$Mn(CO)_5H$, absolute, π^* intensity as measure of dπ-pπ backbonding
	RH89a	275-330	E	comp. to CO, $Mn(CO)_{10}$ & M(CO)s; E(ref); f(π^*) α backbond
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
C_6ClH_5	HP&78	283-295	E	XPS-EELS chemical shifts comp.
	ES84	270-310	P	total, partial ion yield, site-selective frag., differs from (HP&78)
C_6CrO_6	EC&84	287	P	$Cr(CO)_6$, ion & electron yield, comp. to free CO, CO/Cu, $Fe(CO_5$
	CSB90	275-325	E	comp. of $M(CO)_6$, M=Cr, Mo, W
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping

C_6D_6	CS90	284-287	P	π* vib'nl isotope effect; symmetry breaking; localised core hole
	MS&89	284-287	P	30 meV fwhm; vib'nl isotope eff; symmetry breaking; local. hole
	MS&90	284-287	P	40 meV fwhm; π* vib'nl isotope eff; symmetry breaking; local hole
	MC&91	284-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_x&C_2D_x (isotope effect)
C_6FH_5	HP&78	283-295	E	XPS-EELS chemical shifts comp.
	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	HF&87	280-325	E	weak C-F σ* res.
	PY&97	280-310	T	STEX; $C_6H_xF_{6-x}$ isomers; comp to HF&87; test of building block; C-R shift; (C_6H_5X, X=F,NH_2,OH)
	SC&87	280-305	T	comp. of ab initio, EICVOM & g-Hartree, exp (HP&78); hole local.
$C_6F_2H_4$	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	HF&87	280-325	E	(1,4 = para-difluoro), weak C-F σ* res.
	PY&97	280-310	T	STEX; $C_6H_xF_{6-x}$ isomers; comp to HF&87; test of building block
$C_6F_3H_3$	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	HF&87	280-325	E	(1,3,5-trifluoro), weak C-F σ* res.
	PY&97	280-310	T	STEX; $C_6H_xF_{6-x}$ isomers; comp to HF&87; test of building block
$C_6F_4H_2$	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	HF&87	280-325	E	(1,2,4,5 = para-dihydro), weak C-F σ* res.
	PY&97	280-310	T	STEX; $C_6H_xF_{6-x}$ isomers; comp to HF&87; test of building block
C_6F_5H	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	HF&87	280-325	E	weak C-F σ* res.
	PY&97	280-310	T	STEX; $C_6H_xF_{6-x}$ isomers; comp to HF&87; test of building block
	YP&97	280-310	T	comp. of phenol, aniline, fluorbenzene; substituent effects
C_6F_6	HI86	290-700	E	extended fine structure
	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	HF&87	280-325	E	weak C-F σ* res.
	H89	280-320	E,R	review of electron-beam core excitation spectroscopies (Aussois)
(C_6F_6 cont'd)	H90a	290-320	E,R	absolute, pot. bar. effect on I{σ*(C-F)} through CF_x series
	D92a	270-320	P,R	PEPICO, PEPIPICO; fragmentation mechanisms
	PY&97	280-310	T	STEX; $C_6H_xF_{6-x}$ isomers; comp to HF&87; test of building block
C_6F_{12}	IM&88	275-325	E	(perfluoro-cyclohexane), σ*(C-F) dominated
	OS&90	280-320	P,T	PTFE(s), EY-NEXAFS, comp. to gas (IM&88); reassigned σ*s
C_6F_{14}	HFM87	280-320	E	comp. to other fluorocarbons; σ*(C-F) 'giant shape res.'
	IM&88	275-325	E	(perfluoro-n-hexane), σ*(C-F) dominated
	AC&95	290-315	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
$C_6H_4N_2S$	HD&91	275-320	E	Bz(N-S) ring; comp. of S-N heterocyles, aromaticity
$C_6H_4N_2S_2$	HD&91	275-320	E	Bz(N-S) ring; comp. of S-N heterocyles, aromaticity
$C_6H_4N_2S_3$	HD&91	275-320	E	Bz(N-S) ring; comp. of S-N heterocyles, aromaticity
$C_6H_4O_2$	FH92	280-330	E,T	O=Bz=O; absolute; EHMO; comp. of BzOH, $Bz(OH)_2$ and quinone
C_6H_5I	HP&78	283-295	E	XPS-EELS chemical shifts comp.
$C_6H_5NO_2$	TUH96	280-320	E,T	absolute; EHMO; comp. to aniline, benzene and nitroanilines
C_6H_6	HS90	280-345	E	$CH_3C/C\text{-}C/CCH_3$; absolute; comp. to other X:::X species; conj.
	S92	280-320	E,T,R	MS-Xα; comp to propyne, solid
C_6H_6	EH&76	280-300	P	benzene, photoelectric yield
	HB77	280-340	E	cont. res.
	ES84	270-310	P	partial & total ion yields, e_u π* res. anomalously weak
	SSH84a	295	T	σ*-res./bond length relationship
	AV&85	2-1000	P	absolute, discrete hv; 'MRV-Xα' calc.; σ* res. have diff. pol.
	GMT85	280-300	T	MSX-α; π levels only; assigns 289eV peak to $\pi_2(b_{2g})$, comp. to ETS
	HS&85	275-330	E,P	gas, solid monolayer comp., π* & σ* res., MS X-α calc.
	DG&86	280-320	E	comp. to borazine, cyclohexane
	L86	284-290	T	HAM/3 electron affinities, reassigned π* levels, comp. to HB77

	HI86	290-700	E	extended fine structure
	HF&87	280-325	E	comp. to fluorobenzenes
	SC&87	280-305	T	comp. of ab initio, EICVOM & g-Hartree, exp (HP&78); core local.
	MF&88	280-320	P	ZEKE; XPS-sat & EELS/PA, higher Ryd., 2e & shake-up, PCI
	H89	280-320	E,R	review of electron-beam core excitation spectroscopies (Aussois)
	HR89	280-320	E	comp. of c-C_6 hydrocarbons; develop. of π* & σ* conjugation
	MS&89	284-287	P	30 meV fwhm, vib'ns; comp. to C_2D_4; symmetry mod. by localised hole
	PF&89	280-360	P	partial X-sect. (main line, satellites), 293 eV peak is 2e-
	YS&89	280-320	P,T	E- yield NEXAFS of H-$(C_6H_4)_n$-H (N=1,3-6); comp. to benzene (HS&85), π* localisation, CNDO/S calc. (Z+1)
	CS90	284-287	P	π* vib'nl isotope effect; symmetry breaking; localised core hole
	HW&90	300-700	E	EXELFS, comp. to NEXAFS of solid (77 K)
	MS&90	284-287	P	40 meV fwhm; π* vib'nl isotope eff.; symmetry breaking; local. hole
	BG&91	291	E	(e,2e); comp. to calc.; suggests R-dependent interference in I(q)
	H91	280-320	E	comp. of c-C_6 HCs; development of π* & σ* conjugation
	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
	MC&91	284-291	P	50 meV fwhm; π* & Ryd vibns; comp of C_2H_x&C_2D_x (isotope effect)
	VNP91	280-320	P	comp. of BF_3, BN(s) & borazine; edge resonances
	ME&92	282-292	P	comp. of gas (HB77) & sol.; H^+ yield; ultrafast C-H resonance decay
	HUR92	280-330	E,T	absolute, comp. of R-benzenes; EHMO; PET-polymer PEELS model
	RY&92	280-320	E	comp. of small mol. analogs with PET polymer
	S92	280-330	E,R	comp. of C_2H_x, x=2,4,6; σ*(C-C)
	FE&94	284-286	E,T	^{3}π*; INDO calc; correl. of Δ(1,3) and π* osc. str.
	AVC95	280-314	T	absolute; ΔSCF with Stieltjes continuum; comp. of benzene, napthalene, anthracene, tetracene and pyrene; comp. to expt. reinterpret HS&85
	SG&95b	284-310	P,T	resonant X-ray emission (RIXS); unbroken symmetry; states assigned
(C_6H_6 .cont'd)	HC96	285	T	DFT calc.; ^{3}π-^{1}π split = 0.41 eV
	TUH96	280-320	E,T	absolute, EHMO, comp. to aniline, nitrobenzene and nitroanilines
	PY&97	280-310	T	STEX; $C_6H_xF_{6-x}$ isomers; comp to HF&87
	UT&97	282-303	P	absolute; reference for Ph_3Si-X, Me_3Si-X
	OM&98	280-310	T	GSCF3; DOUS modified by core hole effect; compared to condensed ring systems: chrysene, perylene, coronene
	KK&99	290-360	P	absolute; main line partial cross-sections; disputes shape res. existence
	DF&00	280-320	E,T	relative, Z+1 ab initio; C_{2v} sym. Ass.; Ryd-val mix; 289 peak = 2e-
	RK&00a	282-800	P	absolute; partial X-sect; b; EXAFS; resonant Auger; no SR; explains 298 continuum peak
	GT&03	280-320	E	absolute; comp. to X-ray Raman spectra
$C_6H_6N_2O_2$	TUH96	280-320	E,T	(1,2)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
	H00	282-298	E,T,R	isomer effects on spectra; EHMO calculations
$C_6H_6N_2O_2$	TUH96	280-320	E,T	(1,3)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
	H00	282-298	E,T,R	isomer effects on spectra; EHMO calculations
$C_6H_6N_2O_2$	TUH96	280-320	E,T	(1,4)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
	H00	282-298	E,T,R	isomer effects on spectra; EHMO calculations
C_6H_6O	FH92	280-330	E,T	phenol; absolute; EHMO; comp. of BzOH, $Bz(OH)_2$ and quinone
	PY&97	280-310	T	STEX; C-R shift; (C_6H_5X, X=F,NH_2,OH)
	YP&97	280-310	T	comp. of phenol, aniline, fluorbenzene; substituent effects
$C_6H_6O_2$	FH92	280-330	E,T	HO-Bz-OH; EHMO; comp. of BzOH, $Bz(OH)_2$ and quinone
C_6H_7N	HUR93	280-330	E	aniline, comp. to dimethylaniline
	LA&95	284-296	P,T	RIXS; comp. to benzene; interference between (C-H, C-R) π* states
	LAG96	284-294	T	absorption; RIXS; polarisation anisotropy
	TUH96	280-320	E,T	absolute, EHMO, comp. to nitrobenzene and nitroanilines
	NG&97	284-294	P,R	resonant X-ray emission (RIXS); comp. to benzene
	PY&97	280-310	T	STEX; C-R shift; (C_6H_5X, X=F,NH_2,OH)

	YP&97	280-310	T	comp. of phenol, aniline, fluorbenzene; substituent effects
	CPA01	280-320	T	STEX with screening; comp. to expt. (HUR93)
C_6H_8	HR89	280-320	E	(1,3-cyclohexadiene), comp. of c-C_6 HCs; π^* & σ^* conjugation
	H91	275-335	E	comp. of c-C_6 HCs; development of π^* & σ^* conjugation
C_6H_8	HR89	280-320	E	(1,4-cyclohexadiene), comp. of c-C_6 HCs; π^* & σ^* conjugation
	H91	275-335	E	comp. of c-C_6 HCs; development of π^* & σ^* conjugation
C_6H_8	NS&92	280-330	P,T	1,3,5-hexatriene; solid NEXAFS; vibn'l struct., ab initio
	LA93	282-292	T	1-particle Green's function; comp. of C_2H_4, C_4H_6,C_6H_8; comp. to NS&92 (solid); claims relaxation shifts dominate; π^* split small.
	GA95	284-290	T	delocalization in polyenes; comp. of H-$(CH=CH)_n$-H, n=1-5
	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
	YA96	290-315	T	STEX; shake-up spectra related to NEXAFS; $H(C_2H_2)_nH$, n=1-5
C_6H_8O	UHR99	280-320	E	2-cyclohexene-1-one; absolute; conjugation test
$C_6H_8O_2$	FH94	280-330	E,T	1,2-chclohexanedione, absolute; eff. of cong.; enol-form
$C_6H_8O_2$	FH94	280-330	E,T	1,3-chclohexanedione, absolute; eff. of cong.; keto-form
$C_6H_8O_2$	FH94	280-330	E,T	1,4-chclohexanedione, absolute; eff. of cong.; keto-form
$C_6H_9N_3O_3$	UA&99	280-340	E	trimethyl-isocyanurate; absolute; polymer model
C_6H_9S	HT&90	275-325	E	3-Ethyl-thiophene; absolute, no mod. of π^* (cf. polymer cond.)
C_6H_{10}	HN&86	275-325	E,P	(cyclohexene), res./bond length
	HR89	280-320	E	comp. of c-C_6 hydrocarbons; development of π^* & σ^* conjugation
	H91	275-335	E	absolute, comp. of c-C_6 hydrocarbons; π^* & σ^* conjugation
C_6H_{10}	EL&98	280-320	E	dimethylcyclobutene; absolute; comp with tetramethylcyclobutene
$C_6H_{10}O$	FH94	280-330	E,T	(cyclohexanone); absolute; comp. to o,m,p-cyclohaxanedione
$C_6H_{10}O$	UHR99	280-320	E	4-hexene-3-one; absolute; conjugation test
C_6H_{12}	DG&86	280-330	E	(cyclohexane), comp. to borazine, benzene, claims giant resonance
	HN&86	275-325	E,P	δ-R; solid, monolayer comp., MS-Xα calc.
	HI86	290-700	E	extended fine structure
	H89	280-320	E,R	review of electron-beam core excitation spectroscopies (Aussois)
	HR89	280-320	E	comp. of c-C_6 hydrocarbons; development of π^* & σ^* conjugation
	H91	275-335	E	absolute, comp. of cyclic-hexa-hydrocarbons; π^* & σ^* conjugation
	LAL91	285-305	T	CNDO, systematic calc. of σ^* energies; ISEELS, ETS for param. det.
	S92	280-320	E,T,R	MS-Xα; comp. of cyclic-C_n alkanes
C_6H_{12}	FL96	282-294	T	1-hexene; absolute; ΔSCF-CI; comp. to XPS shake-up and expt. [S92]; n-C_nH_{2n}, n=3,4,5,6 compared
$C_6H_{12}N_2$	RUH95	280-320	E	DABCO; absolute
C_6H_{14}	HI87	275-325	E	n-hexane, C_xH_{2x+2} series
	HI88b	275-335	E	absolute, comp. to c-C_6H_x, evolution of conjugation
$C_6H_{14}O$	UHR92	280-330	E	i-Pr-ether, absolute; modelling of PEELS of polyurethane
	UH&95a	280-330	E	absolute; modelling of PEELS of polyurethane
	UH&95b	280-330	E	absolute; polyurethane models
$C_6H_{16}N_2Si$	UH&94b	390-420	E	bis(dimethylamino)dimethylsilane; explore Si-N bond
$C_6H_{16}OSi$	UH94a	280-330	E	Et_3SiOH; comp of Si-O-X species; inductive, resonance effects
$C_6H_{18}OSi_2$	UH94a	280-330	E	$Me_3SiOSiMe_3$; comp of Si-O-X species; inductive, resonance effects
	UT&97	282-303	P	absolute; Ph_3Si-X. Me_3Si-X
$C_6H_{18}O_3Si_3$	UH94a	280-330	E	c-$(SiMe_2O)_3$; comp of Si-O-X species; inductive, resonance effects
$C_6H_{18}Si_2$	W92	280-320	E	absolute; comp. of $Si(CH_3)_4$, $Si_2(CH_3)_6$ and $Si_6(CH_3)_6$; σ^*(Si-Si)
	UX&94	280-330	E	absolute; comp. of edges of Si-Si compounds
	UT&97	282-303	P	absolute; reference for Ph_3Si-X, Me_3Si-X
C_6MoO_6	CSB90	275-325	E	comp. of $M(CO)_6$, M=Cr, Mo, W
	SLD95	287	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
C_6O_6V	TD&92a	280-330	P,E	$V(CO)_6$, absolute

C_6O_6W	CSB90	275-325	E	$W(CO)_6$, comp. of $M(CO)_6$, M=Cr, Mo, W
$C_7CoH_5O_2$	HW&90	300-530	E	$CoCp(CO)_2$; EXELFS; C-C detected; strong C-Co backscatter
	RWH91	270-350	E	absolute; comp. to other mixed-Cp, CO species
	H92b	281-307	E,R	absolute, comp. of $CpCo(CO)_2$, $Co_2(CO)_8$ and $Co(Cp)_2$
C_7F_5N	IO&99	278-292	P	C_6F_5CN; TIY; mass spec at π^*_{ring}
$C_7FeH_6O_3$	RH92	280-330	E	C_4H_6-$Fe(CO)_3$; comp. of $Fe(CO)_5$, $RFe(CO)_3$, $Fe(Cp)_2$; mix. lig. effect
C_7H_5N	H92a	275-340	E,T	absolute; EHMO
C_7H_6O	HUR92	280-330	E,T	benzaldehdye; absolute, comp. of R-Bz; EHMO; poly-PET PEELS
	RY&92	280-320	E	comp. of small mol. analogs with PET polymer
$C_7H_7NO_2$	UH&95b	280-330	E	NH2-CO_2Ph, absolute; modelling of polyurethane PEELS
C_7H_8	AV&85	285-305	P	toluene; absolute, comp. of benzene, polystyrene & toluene
C_7H_8	HS90	275-340	E	1,6-heptadiyne; absolute; conjugation as f(chain length)
C_7H_8O	HU97	280-320	E	anisole (Ph-OMe); absolute
$C_7H_8N_2O$	UH&95a	280-320	E	phenylurea; absolute; modelling of polyurethane PEELS
	UH&95b	280-320	E	phenylurea; absolute; distinguishing urea/urethane
C_7H_9N	UH96	280-320	E	N-methyl aniline; absolute
C_7H_{10}	WH&90	280-320	E	norbornene; absolute; comp. of NB, 2-CH_3-NB & 2-CF_3-NB
	H92b	280-320	E,R	comp. of NB, 2-Me-NB, 2-CF_3-NB; core vs. valence
$C_7H_{12}O_2$	LUH97	280-320	E	butyl acrylate; absolute; polymer model
$C_7H_{14}O$	YA&96	280-320	T	dipropylketone; absolute; STEX; R_2CO comparison
	YA&97	287	T	π^* OS; test of initial and final state sum rules; comp to expt.
$C_7H_{18}N_3Si$	UH&94b	280-320	E	tris(dimethylamino)methylsilane; exploring Si-N bond
$C_8Cl_2H_6O_2$	HUR92	275-340	E	ClCO-Bz-ClCO (terphthalic Cl); absolute; comp. to polymer EELS
	RY&92	280-320	E	comp. of small mol. analogs with PET polymer
$C_8ClH_{18}P$	HH&98	284-304	E	$(tBu)_2PCl$; absolute; comp. to PMe_3
$C_8Co_2O_8$	H90a	280-325	E,R	absolute; comp. to TM-COs; relaxation and δ(R) for σ^*(CO)
	HWR90a	280-325	E	absolute; comp. to TM-COs; f(π^*) vs. extent of backbonding
	RWH91	270-350	E	$Co_2(CO)_8$; absolute; comp. to mixed-Cp, CO species
	H92b	281-307	E,R	absolute, comp. of $CpCo(CO)_2$, $Co_2(CO)_8$ and $Co(Cp)_2$
$C_8F_3H_9$	WH&90	280-320	E	CF_3-norbornene; absolute; comp. of NB, 2-CH_3-NB & 2-CF_3-NB
	H92b	280-320	E,R	comp. of NB, 2-Me-NB, 2-CF_3-NB; core vs. valence
C_8F_{18}	AC&95	290-315	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
C_8H_6	LUH99	280-320	E,T	phenylacetylene; absolute; GSCF3, low-lying π^*
$C_8H_6O_2$	HUR92	275-340	E	CHO-Bz-CHO (Terphthaldehdye); absolute; comp. to polymer EELS
	RY&92	280-320	E	comp. of small mol. analogs with PET polymer
	YP&97	280-320	T	ortho, para terphthaldehyde; substitutent effects; comp. to HUR92
C_8H_8	HN&86	275-325	E,P	(cyclo-octatetraene), σ^*-E,R; solid, monolayer comp.
C_8H_8	AV&85	285-305	P	(C_6H_5CH-CH_2-), polystyrene, comp. to benzene, pyridine & toluene
C_8H_9NO	UH&95b	275-330	E	benzyl carbamate; absolute; modelling polyurethanes
$C_8H_9NO_2$	GH01	280-320	E	phenylalanine, comp. of amino acids
C_8H_{10}	GA95	284-290	T	delocalization in polyenes; comp. of H-$(CH{=}CH)_n$-H, n=1-5
	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
	YA96	290-315	T	STEX; shake-up spectra related to NEXAFS; $H(C_2H_2)_nH$, n=1-5
C_8H_{10}	EH&98	275-325	E	o-xylene (Me-C_6H_4-Me); absolute; weak ring substitution effects
	HE&98	284-388	E,T	m-xylene; absolute; subst. isomer effects on π^* shape
C_8H_{10}	EH&98	275-325	E	m-xylene (Me-C_6H_4-Me); absolute; weak ring substitution effects
	HE&98	284-388	E,T	m-xylene; absolute; subst. isomer effects on π^* shape
C_8H_{10}	EH&98	275-325	E	p-xylene (Me-C_6H_4-Me); absolute; weak ring substitution effects
	HE&98	284-388	E,T	m-xylene; absolute; subst. isomer effects on π^* shape
$C_8H_{11}N$	HUR93	275-330	E	N,N-dimethylaniline, absolute
C_8H_{12}	WH&90	280-320	E	CH_3-norbornene; absolute; comp. of NB, 2-CH_3-NB & 2-CF_3-NB
	H92b	280-320	E,R	comp. of NB, 2-Me-NB, 2-CF_3-NB; core vs. valence
$C_8H_{12}O_3Si$	TC&02	280-320	E	$(CH_2{=}CH)Si(OAc)_3$; absolute; vinyl silanes

$C_8H_{12}S$	HT&90	275-325	E	3-butyl thiophene; absolute; no mod. of π* (cf. polymer cond.)
$C_8H_{12}Si$	HS90	280-345	E	HC/C-CH_2-C/CSi$(CH_3)_3$; absolute; comp. of X:::X species
C_8H_{14}	EL&98	280-320	E	cis-tetramethylcyclobutene; comp of cis, trans, dimethylcyclobutene
C_8H_{14}	EL&98	280-320	E	trans-tetramethylcyclobutene; comp of cis, trans, dimethylcyclobutene
$C_8H_{16}O$	UHR92	280-330	E	di(sec-butyl)ether; absolute; modelling of polyurethane PEELS
$C_8H_{18}O_2$	MI&87	275-325	E	(bis-(t-Bu)peroxide) low-lying σ*(O-O)
$C_8H_{18}O_3Si$	TC&02	280-320	E	$(CH_2$=CH)Si$(OEt)_3$; absolute
$C_8H_{24}N_4Si$	UH94b	280-330	E	Si$(NMe_2)_4$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_8H_{24}O_4Si_4$	UH94a	280-330	E	c-$(SiMe_2O)_4$; comp of Si-O-X species; inductive, resonance effects
$C_9CrH_6O_3$	W92	280-330	E	BzCr$(CO)_3$, absolute; comp to $CrBz_2$
	WHR92	280-330	E	BzCr$(CO)_3$, absolute; comp to $CrBz_2$
$C_9FeH_8O_3$	WRH92	280-330	E	CxFe$(CO)_3$; comp. of Fe$(CO)_5$, RFe$(CO)_3$, Fe$(Cp)_2$; mix. lig. effect
$C_9Fe_2O_9$	MSN89	270-520	P	total, partial ion yields; comp to Fe$(CO)_5$; EXAFS?
	WRH92	280-330	E	absolute, comp. with Fe$(CO)_5$, RFe$(CO)_3$, Fe$(Cp)_2$; mix. lig. effect
$C_9H_5O_4V$	WHR92	280-320	E	cyclopentadienyl vanadium tetracarbonyl
$C_9H_6N_2O_2$	UHR99	280-320	E,T	2,4-TDI, absolute; isomeric effect
$C_9H_6N_2O_2$	UHR99	280-320	E,T	2,6-TDI, absolute; isomeric effect
$C_9H_7MnO_3$	W92	280-330	E	Me-CpMn$(CO)_3$, absolute
$C_9H_8O_2$	LUH97	280-320	E	vinyl benzoate; absolute; model for PET X-ray damage
$C_9H_{10}O_2$	HUR92	275-340	E	Ethylbenzoate; absolute; comp. to PET polymer EELS; EHMO
	RY&92	280-320	E	comp. of small mol. analogs with PET polymer
	H00	282-294	E,T,R	delocalization effects on spectra; GSCF3 calculations
$C_9H_{11}NO_2$	UH&95b	280-330	E	Ph-NH-CO_2Et, absolute; modelling of polyurethane PEELS
$C_9H_{27}NSi_3$	UH94b	280-330	E	N$(SiMe_3)_3$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_{10}ClCo_3O_9$	HM&93	280-330	E,P,T	Cl-C-[Co$(CO)_3]_3$, abs.; gas(E,P-ions), sol(P); PIPICO, TOF-MS
$C_{10}Cl_2H_{10}Ti$	WH93	280-335	E	Cp_2TiCl_2, abs. comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
$C_{10}Cl_2H_{10}V$	WRH89	274-340	E	Cp_2TiCl_2, absolute
$C_{10}CoH_{10}$	HR89	280-320	E	cobaltocene, absolute, strong C1s6e_{1g}(M3d)
	RH89b	275-325	E	comp. of Fe, Co, Ni metallocenes
	H92b	281-307	E,R	absolute, comp. of CpCo$(CO)_2$, $Co_2(CO)_8$ and Co$(Cp)_2$
$C_{10}CrH_8O_3$	WRH89	280-330	E	toluene-Cr$(CO)_3$, comp. to Bz_2Cr
$C_{10}CrH_{10}$	HWR89	275-325	E	chromocene, comp. of V, Cr, Mn
$C_{10}F_4H_8$	UH96	280-320	E	dimethyl-tetrafluoro-benzocyclobutane; model for dielectric polymer
$C_{10}F_{16}$	HI88a	275-335	E	per-fluoro-adamantine, strong σ*(C-F)
$C_{10}F_8$	RI&88	275-325	E	per-fluoro-naphthalene, low-lying σ*(C-F), perfluoro-effect
	LAL91	280-300	T	CNDO, pred. of π* and σ* energies
$C_{10}F_{22}$	AC&95	290-315	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
$C_{10}FeH_{10}$	HR89	280-320	E	ferrocene, absolute, strong C1s6e_{1g}(M3d)
	RH89b	275-325	E	comp. of Fe, Co, Ni
	H90a	275-322	E,R	absolute, comp. of Fe,Co,Ni metallocenes versus Cp-H
	RH&93b	282-312	P	absolute, comp of TEY, TIY, PIPICO yields; TOF-MS
	WRH92	280-330	E	absolute, comp. of organo-iron complexes, ligand interaction effects
$C_{10}GeH_{20}N_2$	LU&99	282-309	E,T	c-Ge(RNCH=CHNR), R=tBu, comp. cyclic diamino C:, Si:, Ge: ; GSCF3
$C_{10}GeH_{22}N_2$	LU&99	282-309	E,T	c-Ge($RNCH_2CH_2NR$), R=tBu, comp. cyclic diamino C:, Si:, Ge: ; GSCF3
$C_{10}GeH_{22}N_2$	LU&99	282-309	E,T	c-H_2Ge(RNCH=CHNR), R=tBu, comp. cyclic diamino C: Si: Ge: ; GSCF3
$C_{10}GeH_{24}N_2$	LU&99	282-309	E,T	c-H_2Ge($RNCH_2CH_2NR$), R=tBu, comp. cyclic diamino C: Si: Ge: GSCF3
$C_{10}H_8$	RI&88	275-325	E,T	naphthalene, five π* res., HAM/3 calc., comp. to per-F-nap.
	HT&89	275-325	E,T	comp. to azulene; comp to polymer
	AVC95	280-314	T	absolute; ΔSCF with Stieltjes cont.; comp. of aromatics; comp. to RI&88
	SB&02	278-320	E	variable angle; dipole forbidden transition identified
	GT&03	280-320	E, T	absolute; GSCF3; comp. to X-ray Raman spectra
$C_{10}H_8$	HT&89	275-325	E,T	azulene, comp. to naphthalene; comp to polymer

	LAL91	285-305	T	CNDO, systematic calc. of σ* energies; ISEELS, ETS for param. det.
$C_{10}H_{10}Mg$	WRH89	274-340	E	Cp_2Mn, absolute
$C_{10}H_{10}Mn$	HWR89	275-325	E	manganocene, comp. of V, Cr, Mn
	H90a	275-322	E,R	absolute, comp. of Fe,Co,Ni metallocenes versus Cp-H
	S92	280-320	E,R	comp. to free CO and CO/Mo; σ*(CO) shift
$C_{10}H_{10}Ni$	HR89	280-320	E	absolute, strong C1s6e_{1g}(M3d)
	RH89b	275-325	E	nickelocene, comp. of Fe, Co, Ni
	H90a	275-322	E,R	absolute, comp. of Fe,Co,Ni metallocenes versus Cp-H
	RH&93b	282-312	P	absolute, comp of TEY, TIY, PIPICO yields; TOF-MS
$C_{10}H_{10}O_4$	UH&96	280-296	E,T	p-dimethylphthalate (MeO_2C-C_6H_4-CO_2Me); ab initio; isomer effects in o-, m-, p-phthalates; comp. to polymer
	RH&97	275-325	E,P,T	absolute; comp. to solid; NEXAFS, PEELS, STXM of PET; radiation damage quantified
	UH&97	280-310	E,T	absolute; ab initio; comp. to oligimer NEXAFS
	HE&98	284-288	E,T	GSCF3; comp. to polymer
	H00	282-294	E,T,R	delocalization effects on spectra; GSCF3 calculations
$C_{10}H_{10}O_4$	UH&96	280-296	E,T	o-dimethylphthalate (MeO_2C-C_6H_4-CO_2Me); ab initio; isomer effects in o-, m-, p-phthalates; comp. to polymer
	UH&97	280-310	E,T	absolute; ab initio; comp. to oligimer NEXAFS
$C_{10}H_{10}O_4$	UH&96	280-296	E,T	m-dimethylphthalate (MeO_2C-C_6H_4-CO_2Me); ab initio; isomer effects in o- , m-, p-phthalates; comp. to polymer
	UH&97	280-310	E,T	absolute; ab initio; comp. to oligimer NEXAFS
$C_{10}H_{10}V$	HWR89	275-325	E	vanadocene, comp. of V, Cr, Mn
$C_{10}H_{12}$	GA95	284-290	T	delocalization in polyenes; comp. of H-$(CH{=}CH)_n$-H, n=1-5
	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
	YA96	290-315	T	STEX; shake-up spectra related to NEXAFS; $H(C_2H_2)_nH$, n=1-5
$C_{10}H_{12}$	RWH91	280-320	E	$(CpH)_2$ (Diels-alder dimer); comp. of CpH, di-CpH, C_5H_8; Cp^- (π*)
$C_{10}H_{13}NO_2$	UH&95b	280-330	E	Ph-N(CH_3)-CO_2Et, absolute; modelling of polyurethane PEELS
$C_{10}H_{16}$	HI88a	275-325	E	adamantane, (tri-cyclo $3,3,1^{3,7}$)-decane
$C_{10}H_{17}S$	HT&90	275-325	E	3-hexyl-thiophene; absolute; no mod. of π* (cf. polymer cond.)
$C_{10}H_{19}O_4$	LCH03	280-320	E,T	^{t}BuO(CO)NH(CO)O^{t}Bu; di-carbonyls; charge shifts, GSCF3
$C_{10}H_{20}N_2$	LU&99	282-309	E	tBu-NC=CN-tBu; absolute; model for ring of cyclic diamino C:,Si:,Ge:
	HE&01	280-305	E	reference for thermal decomposition of tetra-amino ethylene
$C_{10}H_{20}N_2Si$	UH&98	283-302	E,T	c-Si(RNCH=CHNR), R=tBu, silylene; absolute; delocal. in Si-N-C=C
	LU&99	280-305	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{22}N_2$	LU&99	280-305	E	tBu-NCH_2CH_2N-tBu; absolute; ligand rel. to cyclic diamino C:,Si:,Ge.
$C_{10}H_{22}N_4$	HE&01	280-305	E	tetra-amino ethylene; used for thermal decomposition to form carbene
$C_{10}H_{22}N_2Si$	UH&98	283-302	E,T	c-Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute;
	LU&99	280-305	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{22}N_2Si$	UH&98	283-302	E,T	c-H_2Si(RNCH=CHNR), R=tBu, silylene; absolute; no delocal.
	LU&99	280-305	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{24}N_2Si$	UH&98	283-302	E,T	c-H_2Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute;
	LU&99	280-305	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{22}O$	HI88a	275-325	E	decyl alcohol
$C_{10}Mn_2O_{10}$	HR89	280-320	E	absolute, π* intensity as measure of dπ-pπ backbonding
	RH89a	275-330	E	$Mn_2(CO)_{10}$, comp. CO, other M(CO)s; E(ref); f(π*) α backbond
$C_{11}Co_3H_3O_{10}$	HM&93	280-330	E,P	CH_3O-C-$[Co(CO)_3]_3$; abs.; comp. of gas (E), sol (P-TEY)
$C_{11}FeH_8O_3$	WRH92	280-330	E	COT-$Fe(CO)_3$; comp. of $Fe(CO)_5$, $RFe(CO)_3$, $Fe(Cp)_2$; mix. lig. effect
$C_{11}H_{14}N_2O_4$	UHR99	280-320	E	TDI-bis-methyl urethane; absolute
$C_{11}H_{20}N_2$	LU&99	282-309	E,T	c-C:($RNCH{=}CHNR$), R=tBu, carbene; absolute;
$C_{11}H_{22}N_2$	LU&99	282-309	E,T	c-C:($RNCH_2CH_2NR$), R=tBu, absolute;
$C_{11}H_{24}N_2$	LU&99	282-309	E,T	c-H_2C:($RNCH_2CH_2NR$), R=tBu, hydrogenated carbene (ref.)

$C_{12}CrH_{12}$	W92	280-330	E	$CrBz_2$; absolute; comp to $BzCr(CO)_3$
	WRH92	275-330	E	$CrBz_2$; comp. to benzene
$C_{12}FeH_{12}$	WRH92	280-330	E	CH_2=CH-CpFeCp; comp. of organo-irons; ligand interaction effects
$C_{12}Fe_3O_{12}$	EC&84	280-340	P	$Fe_3(CO)_{12}$, ion & electron yield, comp. to free CO, CO/Cu, $Cr(CO)_6$
$C_{12}H_{10}O_3$	HUR92	275-340	E	$(BzO)_2CO$ (phenyl carbonate); absolute; comp. to polymer EELS
$C_{12}H_{14}$	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
$C_{12}H_{15}N_2O_2Re$	HS92	280-330	E	$C\pi*ReN_2O_2$, abs.; mixed ligand; chem. shift of N_a-N_b
$C_{12}H_{21}S$	HT&90	275-325	E	3-octyl-thiophene; absolute, no mod. of π* (cf. polymer cond.)
$C_{12}H_{36}Si_5$	W92	280-320	E	absolute; comp. of $Si(CH_3)_4$, $Si_2(CH_3)_6$ and $Si_6(CH_3)_{12}$; σ*(Si-Si)
	UX&94	280-330	E	absolute; comp. of edges of Si-Si compounds
$C_{12}H_{36}Si_6$	UX&94	280-330	E	c-$(SiMe_2)_6$; comp. of edges of Si-Si compounds
$C_{12}O_{12}Ru_3$	SF&90	275-325	P	relative, electron yield, multiple π* res.; relaxation
$C_{13}H_{10}O_3$	HW&91	280-340	E	$(C_6H_5O)_2C$=O; absolute; comp. to methyl carbonate
$C_{13}H_{12}N_2O$	UH&95b	280-330	E	$(Ph\text{-}NH)_2C$=O, absolute; modelling of polyurethane PEELS
$C_{13}H_{12}$	UH&93	280-330	E	Ph-CH_2-Ph; absolute; modelling of polyurethane PEELS
$C_{13}H_{15}MnO_3$	WRH89	275-325	E	$C\pi*Mn(CO)_3$; absolute
$C_{14}FeH_{18}$	WRH92	280-330	E	Bu-cpFeCp; organo-iron complexes, ligand interaction effects
$C_{14}H_{10}$	AVC95	280-314	T	anthracene; absolute; ΔSCF with Stieltjes cont.; comp. of aromatics
	GT&03	280-320	E, T	absolute; GSCF3; comp. to X-ray Raman spectra
$C_{14}H_{10}$	GT&03	280-320	E, T	phenanthracene; absolute; GSCF3; comp. to X-ray Raman spectra
$C_{14}H_{10}O_3$	LUH97	280-320	E	benzoic anhydride; absolute; polymer model
$C_{14}H_{25}S$	HT&90	275-325	E	3-decyl-thiophene, absolute, comp. of 3-alkyl-thiophenes; no change of π* (polymer cond.)
$C_{15}H_{24}O$	LUH97	280-320	E	butylated hydroxy toluene; absolute; polymer model
$C_{16}H_{10}$	AVC95	280-314	T	tetracene; absolute; ΔSCF with Stieltjes cont.; comp. of aromatics
$C_{16}H_{18}$	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
$C_{18}H_{12}$	AVC95	280-314	T	pyrene; absolute; ΔSCF with Stieltjes cont.; comp. of aromatics
	GT&03	280-320	E	absolute; comp. to X-ray Raman spectra
$C_{18}H_{12}$	GT&03	280-320	E, T	triphenylene. absolute; GSCF3; comp. to X-ray Raman spectra
$C_{18}H_{12}$	GT&03	280-320	E, T	1,2-benzanthracene. absolute; GSCF3; comp. to X-ray Raman spectra
$C_{18}H_{12}$	OM&96	280-294	P,T	chrysene; GSCF3 calc. of DOUS and excitation; comp. to solid, pol. dep. (π* most intense at normal incidence); large core-hole effect
	OM&98	280-310	T	GSCF3; DOUS mod. by core hole; comp.of chrysene, perylene, coronene
$C_{18}H_{16}OSi$	UT&97	280-320	E	triphenylsilanol; absolute; Si-Si, Si-O-R systems
$C_{20}H_{12}$	OM&96	280-294	P,T	perylene; GSCF3 calc. of DOUS and excitation; comp. to solid, pol. dep. (π* most intense at normal incidence); large core-hole effect
	OM&98	280-310	T	GSCF3; DOUS modified by core hole effect; compared to condensed ring systems: chrysene, perylene, coronene
$C_{20}H_{22}$	GA95	284-290	T	delocalization in polyenes; comp. to H-$(CH{=}CH)_n$-H, n=1-5
	GYA96	285	T	X-ray emission as f(conjugation); π-exciton effects; $H(C_2H_2)_nH$, n=1,10
$C_{21}H_{15}N_3O_3$	UHR92	275-325	E	$(Bz\text{-}O)_3C3N3$ (tri-phenoxy-triazine); polyurethane modelling
	UA&99	280-320	E	tritolylisocyanurate; absolute, polymer model
$C_{24}H_{12}$	OM&96	280-294	P,T	coronene; GSCF3 calc. of DOUS and excitation; comp. to solid, pol. dep. (π* most intense at normal incidence); large core-hole effect
	OM&98	280-310	T	GSCF3; DOUS mod. by core hole; comp.of chrysene, perylene, coronene
$C_{24}H_{21}N_3O_3$	UA&99	280-320	E	tritolylisocyanurate; absolute, polymer model
$C_{29}H_{20}O$	LUH99	280-320	E,T	tetraphenyl-cyclopenatdienone; low-lying π*
$C_{30}H_{30}Si_2$	UT&97	282-303	P	Ph_3Si-$SiPh_3$; absolute; reference for Ph_3Si-X, Me_3Si-X
$C_{32}H_{16}N_8$	RSH93	280-316	E	phythalocyanine; compared to solid
$C_{32}H_{16}N_8Fe$	RSH93	280-316	E	Fe-phythalocyanine; compared to solid
$C_{32}H_{16}N_8Ni$	RSH93	50-450	E	Ni-phythalocyanine; compared to solid
$C_{32}H_{16}N_8Zn$	RSH93	280-316	E	Zn-phythalocyanine; compared to solid

C_{60}	KB&93a	280-296	P	gas, solid essentially identical; intramolecular e- correl.; XPS, Auger
	KB&93b	280-296	P	gas comp. to EELS of solid; plasmon at 6 eV higher in gas
	JT94a	284-290	T	relative, π* transitions; minimal many-electron effects
	AN&95	280-313	P	TOF mass spec; partial ion yields; $(C_2)_n$ losses dominate
	LP&95	290-320	P	partial PI X-sect (main, sat.); βs; β<2 at 300 eV interpreted as SR
	BS96	290-320	P,R	absolute; cross-sections, β's compared to solid
	B97	270-320	P	total and partial ion yields; lumiescence; plasmsa resonance sought
	KN&97a	280-296	P	pulse, PEPICO TOF; discrete, cont. frag; plasmon res. ~20 eV > IP; PCI

Cesium 4d (85eV)

CsBr	WS76	70-180	P	photographic, gas-solid comp.
CsCl	RS74	78-92	P	photographic, gas-solid comp.
	RS76	70-180	P	photographic, gas-solid comp.
CsF	WS76	70-180	P	photographic, gas-solid comp.
CsI	R74	160-175	P	photographic

Chlorine 2p, 2s (205, 278 eV)

BCl_3	FB70	190-210	P	pressure dependence
	II&80	190-280	P	absolute
	UC&94b	190-208	P	absolute, resonance Auger; spectator only; localised decay
$BrCClH_2$	SR&94	195-225	P	TIY; PEPIPICO; PEPI3CO; selective fragment.; $Br(CH_2)_nCl$, n=1-3
	NM96	220	P,R	mass spectra; comp. of Br 3d/Cl2p for $Br(CH_2)_nCl$ n=1-3
	MS&98a	219	P	Auger-ion coincidence; strong site selectivity from site specific Auger
	MS&98b	220	P	ES-AEPICO, PE, site-selective fragmentation & kinetics
BrC_2ClH_4	SR&94	195-225	P	TIY; PEPIPICO; PEPI3CO; selective fragment.; $Br(CH_2)_nCl$, n=1-3
	NM96	220	P,R	mass spectra; comp. of Br 3d/Cl2p for $Br(CH_2)_nCl$ n=1-3
BrC_3ClH_6	SR&94	195-225	P	TIY; PEPIPICO; PEPI3CO; selective fragment.; $Br(CH_2)_nCl$, n=1-3
	NM96	220	P,R	mass spectra; comp. of Br 3d/Cl2p for $Br(CH_2)_nCl$ n=1-3
$CClF_2H$	CD78	120-270	P	absolute
$CClF_3$	CD78	120-270	P	absolute
	ZIB92	190-290	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	YL94	195-240	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	SS&95	190-280	P	PIPICO; start = selective ion gate; PIPICO yields; comp of Cl2p, C1s, F1s edges; only selective at Cl 2p edge
	SSB99	200-220	P	TIY, PIY; comp of CF_xCl_{4-x} x=1-3; site selective fragmentation
$CClH_3$	HB78a	190-290	E	revised assignment of Cl 1s spectrum of HG76
	HB78b	190-290	E	extended fine structure (EXAFS)
	CG&88	160-240	P	DES, resonant Auger, βs, spectator dominates
	TSH94	196-210	P	PEPICO, TEY, KERDs; ultrafast decay; supports scheme 2 of H78a
CCl_2F_2	CD78	120-270	P	absolute
	S82b	200-208	P	laser plasma source, comp. to Cl-atom calc.s
	ZIB92	190-290	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	BSS93b	50-1500	P	partial ion yields at coarse resolution
	SBS94a	185-285	P	partial ion yields; site-selective frag. at C 1s, Cl 2p, F 1s
	SSB94	185-285	P	partial ion-pair yields; site-selective frag.
	YL94	195-240	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	SSB99	200-220	P	TIY, PIY; comp of CF_xCl_{4-x} x=1-3; site selective fragmentation
CCl_2F_2H	CD78	120-270	P	absolute
CCl_2F_3P	HBC96	190-240	P	TIY, PIY, PEPIPICO; comp. of PCl_3, PF_3, CF_3PCl_2
	NJ&98	180-240	P,T	absolute; GSCF3 calc.; LS-state; comp of PX_3, YPF_3. X=Cl,F, Y=O,S)

CCl_2H_2	HB78b	190-290	E	extended fine structure (EXAFS)
	CG&88	160-240	P	DES, resonant Auger, βs, spectator dominates
CCl_2O	HUR92	180-290	E	absolute, comp. to terphthaloylchloride; EHMO
CCl_3F	CD78	120-270	P	absolute
	ZIB92	190-290	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	YL94	195-240	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	SS97	198-225	P	PIPICO branching ratios; partial X-sect.; site-specific fragmentation
	SS98b	180-240	P	PIY, comp of C 1s, F1s, Cl 2p
	SSB99	200-220	P	TIY, PIY; comp of CF_xCl_{4-x} x=1-3; site selective fragmentation
CCl_3H	HB78b	190-290	E	extended fine structure (EXAFS)
	W80	220-290	E	extended fine structure (EXAFS)
	CG&88	160-240	P	DES, resonant Auger, βs, spectator dominates
CCl_4	P34	180-300	P	photographic; **FIRST MOLECULAR CORE EXCITATION**
	N71a	190-205	P	10eV below IP
	CD78	120-270	P	absolute
	HB78b	150-400	E	pot. bar. effects, extended fine structure (EXAFS)
	CKS80	178-207	P	photographic, laser bombardment X-ray light source
	W80	220-290	E	extended fine structure (EXAFS)
	S82b	200-208	P	laser plasma source, comp. to Cl-atom calc.s
	CG&88	160-240	P	DES, resonant Auger, βs, spectator dominates
	ZIB92	190-290	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
(CCl_4 cont'd)	BC&94	0-400	E	absolute; comp. to atomic (25% too high); (e,e') = absorption; (e,e+ion)=PIMS; dipole breakdown scheme
	YL94	195-240	E	absolute GOS; comp. of $CF_{4-n}Cl_n$ (n=0-4); σ*(C-Cl) GOS changes
	H98	6-250	P	absolute; OOS extrapolation to test TKR; Rydberg assignments
	FM&01	220	P	Auger-ion coincidence
	SC&02	288-296	P	absolute; high res.; Γ~230 meV
C_2ClF_5	CD78	120-270	P	absolute
C_2ClH_3	SBK88	190-260	E	vinyl chloride, comp. other vinyl halides, strong cont. res. σ*(C=C) ?
C_2ClH_5	FL02	190-220	E	absolute, GOS profiles compared of C 1s, Cl 2p & valence
$C_2Cl_2F_4$	CD78	120-270	P	absolute
$C_2Cl_2H_4$	H92	120-270	P	dichloroethane; comp. to NEXAFS
C_2Cl_3H	WH90	160-280	E	Cl_2C=CClH
C_2Cl_3N	IO&99	190-280	P	absolute; selected E mass spec; no site-specific fragmentation
$C_5Cl_3H_5Ti$	W92	196-250	E	$CpTiCl_3$, absolute
	WH93	196-250	E	abs. comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
C_6H_5Cl	HP&78	195-215	E	comp. with carbon 1s near-edge features
$C_8Cl_2H_4O$	HUR92	180-290	E	para-$Bz(COCl)_2$; absolute, comp. to phosgene
$C_8ClH_{18}P$	HH&98	130-220	E	$(t\text{-}Bu)_2PCl$; comp. to PCl_3
$C_{10}ClCo_3O_9$	HM&93	180-280	E	Cl-C-$[Co(CO)_3]_3$, abs.; gas(E,P-ions), sol(P); PIPICO, TOF-MS
$C_{10}Cl_2H_{10}Ti$	WH93	196-250	E	Cp_2TiCl_2, abs.; comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
ClD	KA&96a	201,203	P	ultrafast decay, comp. of resonant Auger, PES; D-isotope enhances molecular features (slower dissoc.)
	KA&96d	202-207	P	res. Auger; TIY; high res. (45 mV); comp. to HCl; mol. field splitting; Γ(4s)=95(10) meV
ClF	FSD99	200-300	T	absolute; ab initio CI; DFT for cont.; comp of ClF, ClF_3; F-cage effects
ClF_3	BS87	190-230	E	high res.
	SB89	190-230	E	high res., partial bar. Effects
	FSD99	200-300	T	absolute; ab initio CI; DFT for cont.; comp of ClF, ClF_3; F-cage effects
ClH	HB72	200-210	P	photoelectric yield, absolute, Rydberg analysis IP (207.1, 208.7)
	S74	196-210	T	Z+1 analogy
	R75	200-210	T	alternate assignment of HB72

	S75a,b	200-210	T	Z+1 analogy calc., alternate assignment of HB72
	S76a	200-210	T	Z+1 analogy, EICVOM
	GKM77b	198-215	P	comp. to Cl_2 spectrum
	NI&81	198-280	P	absolute, Rydberg analysis IP (207.3, 208.9)
	SYD82	190-225	T	ab initio, absolute, comp. to expt (HB72)
	DBH83	198-214	E	0.11eV FWHM
	KM83	190-220	T	Green's function theory - general formulation for near-edge & EXAFS
	SC&84	198-209	E	75meVFWHM, Rydberg IP [3/2=207.40(3), 1/2=209.03(3),
	AA&90b	200-202	P,T	DES at σ*; ultra-fast decay and normal compete
	YPD91	200-230	T	SCF-CI; vibn'l effects; comp. to expt. (SC&84)
	AA&92a	198-214	P,T	PIPICO; partial & total ion yields; σ*, Ryd. differ; HCl^{2+} pot. curves
	AA&92c	200-203	P	resonant AI; comp. of HCl, Cl_2, H_2S
	KA&93	198-214	P	0.2 eV fwhm; resonant AI of Rydbergs; molecular NOT ultrafast
	BM95	199,200	P	resonant Auger; ang. dist.; ultrafast atomic decay 6 large alignment
	LB&95	195-250	T	MS-Xα; comp. of XH_n (X=Si,P,S,Cl)
	KA&96a	201,203	P	ultrafast decay, comp. of resonant Auger, PES
	KA&96b	201,203	P	resonant Auger-Raman narrowing is selective; in 4sσ not σ*; reflects relative widths of Franck-Condon to dissoc. states
	KA&96d	202-207	P	resonant Auger; TIY; high res. (45 mV); comp. to HCl; mol. field splitting; 95(10) meV 4s natural linewidth
	BS&97	199-202	P	resonant X-ray scattering; ultra-fast decay; Auger as f(detune from σ*)
(HCl cont'd)	SA97	201,204	P	Auger resonant Raman; line narrowing at 4sσ but not at σ*
	FS&98	200-210	T	DFT, CI; discrete states
	KK&98	196-200	P	angle resolved PI; asymmetric; ultrafast decay
	KW&98	198-212	P	angle-resolved 2d map of Auger; resonant AI, etc; βs
	MK&98a	203-205	P	resonant Auger; ang. distr; intermediate states identified
	FKA99	203-206	T	absolute; relativistic; core-level only; S-O coupling
	GTM99	204	T	wave packet description of ultrafast decay; detune effects; general theory
	FB&00	200-202	P	resonant Auger; ultrafast; atomic-molecular interference; detuning
Cl_2	G77	196-214	P	Rydberg analysis IP (208.0, 209.6)
	GKM77b	196-214	P	Rydberg analysis IP (208.0, 209.6)
	KMN80b	196-215	T	ab initio calc., comp. to experiment (GKM77)
	SKR80	197-210	E	Z+1 analogy, <70meV FWHM, Ryd. analysis IP (207.80, 209.42)
	NI&81	198-280	P	absolute, Rydberg analysis IP (208.3, 209.8)
	AA&92c	198-202	P	resonant AI; comp. of HCl, Cl_2, H_2S
	LB&95	195-250	T	MS-Xα; comp. to XH_n (X=Si,P,S,Cl)
Cl_2Fe	CK&83	200-240	T	absolute, energy dependent Dirac calc, spin-dependence
Cl_3OP	TKM82	198-215	T	X-α (MSM calc.), comp. to expt (K77)
	YM&84	198-215	P	comp. of fluorescence, PES & calc to TKM82
	SB85d	195-295	E	d-cont. res.
	NJ&98	180-240	P,T	absolute; GSCF3 calc.; LS-state; comp of PX_3, YPF_3. X=Cl,F, Y=O,S)
Cl_3P	MK80	198-216	P	comp. to P 2p spectrum
	TKM81	198-216	P	comp to P2p
	SB85c	190-290	E	0.18eV FWHM, in PX_3 series
	II&87	130-270	P	absolute, high res. (0.03-0.07 eV), comp. to SB85c
	HBC96	190-240	P	TIY, PIY, PEPIPICO; comp. of PCl_3, PF_3, CF_3PCl_2
	AB97	0-350	E	absolute; total and partial ion yield; (e,e+ion); dipole breakdown
	OC&97b	5-200	E,R	absolute, VTKR sum rule; derived molecular properties
	HH&98	130-220	E	absolute; comp. to $(t\text{-}Bu)_2PCl$
Cl_3PS	TKM82	198-215	T	X-α (MSM calc.), comp. to expt (K77)
	NJ&98	180-240	P,T	absolute; GSCF3 calc.; LS-state; comp of PX_3, YPF_3. X=Cl,F, Y=O,S)
Cl_4Ge	GD&96	100-300	E	non-statistical 3/2:1/2 intensities; comp. to Cl 1s, Ce2p/3p of $GeCl_4$
Cl_4Na_4	YS&02	190-230	T	relative; MS-Xα plus DFT; geometry dependence

$(ClNa)_n$	MC&99	190-235	P	relative, PIY, comp. to thin film, solid TEY
	NR&99	190-235	P,T	relative, PIY, comp. to thin film, solid TEY; MS cluster calc
Cl_4Si	BT&87	200-225	P,T	0.4 eV FWHM res., not analysed
	AS&88	200-225	P	DES, spectator decay dominates
	CG&88	200-225	P,T	DES, βs, spectator dominates
	TL&89	190-240	T	absolute, X-α calc; cont. & discrete; Rydbergs
	W92	190-240	E	comp of $SiCl_4$ and Si_2Cl_6
Cl_4Ti	W92	196-250	E	$TiCl4_2$, absolute, comp. to $CpTiCl_3$
	WH93	196-250	E,T	absolute; comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
Cl_6Si_2	W92	190-240	E	comp of $SiCl_4$ and Si_2Cl_6

Chlorine 1s (2830 eV)

$AsCl_3$	GDT97	2.81-2.85	P,T	relative; TIY, MS-Xα; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.; σ*(X-Cl) bond length correlation
$CClH_3$	SBB68	2.81-2.85	P	gas-solid comp.
	BS&69	2.81-2.85	P	assignment of SBB68
	N71	2.82-2.83	P	10eV below IP
	HG76	2.81-2.84	P	absolute
	PB&85	2.81-2.85	P	comp. to fluorescence, weak shake-up features identified
($CClH_3$ cont'd)	D86b	2.81-2.85	P	abs., emission comp. [PB&85]; state-selected fluorescence
	LC&88a	2.81-2.85	P,T	relative, polarised fluorescence with tuned excitation, MO calc
	LC&88b	2.81-2.85	P	relative, polar. fluorescence, MO symmetries, sat.-free Fl spectrum
	L89	2.80-2.84	P	abs., emission comp.; state-selected fluorescence; polarisation
	LC&91	2.81-2.84	P	relative; abs. vs. fluorescence; polarised at σ*(C-Cl)
	PF&94	2.80-2.93	P	thresh. PES; comp. of CH_xCl_{4-x}, x=0-3; CF_xCl_{4-x}, x=1-3; I(IP) α #-Cl
	HC&99	2.82-2.84	P	relative; TIY, PIY; branching ratios; PEPICO; KERD; mechanisms
CCl_2H_2	PF&94	2.80-2.93	P	thresh. PES; comp. of CH_xCl_{4-x}, x=0-3; CF_xCl_{4-x}, x=1-3; I(IP) α #-Cl
CCl_2F_2	HG76	2.81-2.84	P	absolute
	LC&91	2.81-2.84	P	relative; abs. vs. fluorescence; polarised at σ*(C-Cl)
	PC&91	2.81-2.84	P	relative; abs. vs. fluorescence; σ*(C-Cl)
	PF&94	2.80-2.93	P	thresh. PES; comp. of CH_xCl_{4-x}, x=0-3; CF_xCl_{4-x}, x=1-3; I(IP) α #-Cl
	LAG96	2.81-2.85	T	resonant & non-resonant X-ray emission; polarization anisotropy in 1-step (RIXS) and generalised 2-step models
CCl_3F	LC&91	2.81-2.84	P	relative; abs. vs. fluorescence; polarised at σ*(C-Cl)
	PC&91	2.81-2.84	P	relative; abs. vs. fluorescence; σ*(C-Cl)
	PF&94	2.80-2.93	P	thresh. PES; comp. of CH_xCl_{4-x}, x=0-3; CF_xCl_{4-x}, x=1-3; I(IP) α #-Cl
CCl_3H	SBB68	2.81-2.85	P	gas-solid comp.
	BS&69	2.81-2.85	P	assignment of SBB68
	PF&94	2.80-2.93	P	thresh. PES; comp. of CH_xCl_{4-x}, x=0-3; CF_xCl_{4-x}, x=1-3; I(IP) α #-Cl
CCl_3H_3Si	FBN90	2.81-2.89	P	$MeCl_3Si$, discrete & cont. shape res.; strong double excitation
CCl_4	SBB68	2.81-2.85	P	gas-solid comp.
	BS&69	2.81-2.85	P	assignment of SBB68
	N71	2.83	P	10eV below IP
	LG&86	2.8-3.0	P	XANES, EXAFS, ionization yield
	PF&94	2.80-2.93	P	thresh. PES; comp. of CH_xCl_{4-x}, x=0-3; CF_xCl_{4-x}, x=1-3; I(IP) α #-Cl
$C_2Cl_2H_6Si$	FBN90	2.81-2.89	P	Me_2Cl_2Si, discrete & cont. shape res.; strong double excitation
$C_2Cl_2H_4$	LG&86	2.8-3.0	P	XANES, EXAFS, ionization yield
C_2Cl_3H	HG76	2.81-2.84	P	absolute
C_2Cl_5H	HG76	2.81-2.84	P	absolute
C_3ClH_9Si	FBN90	2.81-2.89	P	Me_3ClSi; discrete & cont. shape res.; strong double excitation
ClD	DA&98c	2.82-2.84	P	TIY, PIY, neutral D observed; β for fragmentation
ClF	FSD99	2.81-2.85	T	absolute; ab initio CI, DFT continuum; comp of ClF, ClF_3; F-cage

ClF_3	LC&87	2.82-2.86	P	comp. of abs. & fl.; res. effects; strong polarisation
	PC&87	2.81-2.84	P	abs., emission comp.; state-selected fluorescence
	SL&91a	2.81	P	anisotropy of fluorescence at σ*(C-Cl); matches classical oscillator pred. (2-step model)
	LC&91	2.81-2.84	P	relative; abs. vs. fluorescence; polarised at σ*(C-Cl)
	PC&91	2.81-2.84	P	relative; abs. vs. fluorescence; σ*(C-Cl)
	LM&94	2.824	P	ion yields at σ*(C-Cl); Auger-ion coincidence
	PF&94	2.80-2.93	P	thresh. PES; comp. of CH_xCl_{4-x}, x=0-3; CF_xCl_{4-x}, x=1-3; I(IP) α #-Cl
	LAG96	2.81-2.85	T	resonant & non-resonant X-ray emission; polarization anisotropy in 1-step (RIXS) and generalised 2-step models
ClH	LN43	2.8-3.2	P	comp. to Cl_2
	SKN51	2.81-2.83	P	20eV around edge, comp. to Cl_2
	BN66	2.81-2.85	P	relative, see SYD82
	SBB68	2.81-2.85	P	gas-solid comp.
	BS&69	2.81-2.85	P	assignment of SBB68
	G70	2.81-2.84	P	relative absorption
	SM&70	2.81-2.85	P	comp. to Cl 1s emission
	MN&75	2.81-2.85	T	one-centre SCF-MO calc., geometry optimized
	SYD82	2.81-2.85	T	ab initio, absolute, comp. to expt (BN66)
(HCl cont'd)	D86b	2.81-2.84	P	abs., emission comp. [G70]; multi-vacancy effects
	BM&90	2.81-2.86	P	absolute; HCl, Cl_2 comp; KV 2e-; sym.-broken states in 2e delocal?
	LM&94	2.824	P	ion yields at σ*(H-Cl); Auger-ion coincidence
	FPS95b	2.82-2.83	T	MS-Xα; non-MT and SCF required to model expt.
	DA&98c	2.82-2.84	P	TIY, PIY, neutral H observed; β for fragmentation
	FS&98	2.81-1.85	T	DFT, CI; discrete states; comp to BM&90; absolute 1s ioniz. X-sect
	HA&98a	2.82-2.85	P	TIY, PIY, neutral H-decay at 6σ*; ultrafast decay
	HA&98b	2.82-2.84	P	Cl^{n+} n=1-5 yields, PCI
ClF_5S	RB&92	2.8-3.1	P,T	relative; comp. to SF_6; EXAFS
Cl_2	LN43	2.81-3.20	P	comp. with early EXAFS theory
	SKN51	2.81-2.84	P	30eV around edge, comp. with early EXAFS theory
	SBB68	2.81-2.85	P	gas-solid comp.
	BS&69	2.81-2.85	P	assignment of SBB68
	SM&70	2.81-2.85	P	comp. to Cl 1s emission
	MS&73	2.81-2.85	T	semiempirical calc.
	B80	2.81-3.20	P,R	review, (SKN51 data)
	LG&86	2.8 -3.0	P	XANES, EXAFS, ionization yield
	BM&90	2.81-2.86	P	absolute; HCl, Cl_2 comp; KV 2e-; sym.-broken states in 2e delocal?
	FPS95a	2.82-2.83	T	MS-Xα; non-MT and SCF required to model expt.
	NM96	2.81-2.86	P,R	absolute; XAFS (BM&90 data)
	MS&97b	2.81-2.86	P,T	RIXS; pol. dep.; non-dipole features associated with phase variation over molecular size; complicates use of RIXS for state symmetry determination
Cl_2OS	HBT87	2.81-2.86	P	comp. to other S,Cl,O cmpds, σ*(Cl-S) dominates
Cl_2OS_2	HBT87	2.81-2.86	P	comp. to other S,Cl,O cmpds, σ*(Cl-S) dominates
Cl_2S	HBT87	2.81-2.86	P	comp. to other S,Cl,O cmpds, σ*(Cl-S) dominates
Cl_2S_2	HBT87	2.81-2.86	P	comp. to other S,Cl,O cmpds, σ*(Cl-S) dominates
Cl_3P	GDT97	2.81-2.85	P,T	relative; TIY, MS-Xα; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.; σ*(X-Cl) bond length correlation
Cl_4Ge	GD&96	2.81-2.85	P,T	ab initio calc; comp. to all other edges
	GDT97	2.81-2.85	P,T	relative; TIY, MS-Xα; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.; σ*(X-Cl) bond length correlation
Cl_4Si	BF&87	2.81-2.88	P	split first res., comp. to Si 1s
	TL&89	2.81-2.88	T	absolute, X-α calc; cont. & discrete; Rydbergs
	FBN90	2.81-2.89	P	discrete & cont. shape res.; strong double excitation

	GDT97	2.81-2.85	P,T	relative; TIY, MS-Xα; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.; σ*(X-Cl) bond length correlation
Cl_4Sn	GDT97	2.81-2.85	P,T	relative; TIY, MS-Xα; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.; σ*(X-Cl) bond length correlation

Chromium 2p (574, 584 eV)

$CrCl_2O_2$	DF&94	570-575	T	ab initio CI; relaxed orb.; MO_xX_y (Ti,V,Cr,Mn); covalency incr. as Cl 6 F
CrF_2O_2	DF&94	570-575	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); covalency incr. as Cl 6 F
CrN_4O_4	DFL92	570-575	T	$Cr(NO)_4$; absolute; ab inito-SCF-CI; comp. of 3d spectra of 5 TM compounds; supports MO-model for edge structure
	FD&93	570-575	T	LCAO-SCF-CI; comp. of L-edges of organometallics

Chromium 1s (5.99 keV)

$Cr(CO)_6$	JP58	5.98-6.02	P	40eV about edge, gas-solid comp.
	N70	5.98-6.02	T	pot. bar. effects, MO interpretation
	FDL93	5.98-6.04	T	absolute; LCAO-SCF-CI; comp. to Cr 2p results; Ni, Fe, Cr cmpds
	DF&94	5.98-6.00	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); covalency incr. as Cl 6 F
$CrCl_2O_2$	FDL93	5.98-6.04	T	absolute; LCAO-SCF-CI; comp. to Cr 2p results; Ni, Fe, Cr cmpds
	DF&94	5.98-6.00	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); covalency incr. as Cl 6 F
CrF_2O_2	DF&94	5.98-6.00	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); covalency incr. as Cl 6 F
$Cr(NO)_4$	FDL93	5.98-6.04	T	absolute; LCAO-SCF-CI; comp. to Cr 2p results; Ni, Fe, Cr cmpds

Cobalt 3p (55 eV)

$C_7CoH_5O_2$	HWR90b	30-280	E	$CoCp(CO)_2$; absolute; comp. to other mixed-Cp, CO species
C_8CoO_8	HWR90b	30-280	E	$Co_2(CO)_8$; absolute; comp. to mixed-Cp, CO species
$C_{10}ClCoO_9$	HM&93	30-280	E,P,T	Cl-C-$[Co(CO)_3]_3$, abs.; gas(E,P-ions), sol(P); PIPICO, TOF-MS
$C_{10}CoH_{10}$	HWR90b	30-280	E	$CoCp_2$; absolute; comp. to mixed-Cp, CO species
$C_{11}Co_3H_3O_{10}$	HM&93	30-280	E,P	CH_3O-C-$[Co(CO)_3]_3$; abs.; comp. of gas (E), sol (P-TEY)

Cobalt 2p (775, 790 eV)

$C_7CoH_5O_2$	WRH89	750-820	E	$CoCp(CO)_2$; absolute; comp. to other mixed-Cp, CO species
$C_8Co_2O_8$	WRH89	750-820	E	$Co_2(CO)_8$; absolute; comp. to mixed-Cp, CO species
$C_{10}ClCo_3O_9$	HM&93	750-820	E,P,T	Cl-C-$[Co(CO)_3]_3$, abs.; gas(E,P-ions), sol(P); PIPICO, TOF-MS
$C_{10}CoH_{10}$	HWR90b	750-820	E	$CoCp_2$; absolute; comp. to mixed-Cp, CO species
$C_{11}Co_3H_3O_{10}$	HM&93	750-820	E,P	CH_3O-C-$[Co(CO)_3]_3$; abs.; comp. of gas (E), sol (P-TEY)

Cobalt 1s (7709 keV)

Co_2	WRE89a	7.70-7.74	T	DVM-Xα; XANES; comp. of Co_2, Mn_2, Ni_2

Fluorine 1s (690 eV)

BF_3	ZV72	680-710	P,R	pot. bar. effects
	SDD81	680-715	T	MSM X-α calc., shape res., comp. to experiment(ZV72)
	SSH84a	690	T	σ*-res./bond length relationship
	VA&85	680-720	P,R	comp. of BF_3, N_2, NO_3^-; shape resonances
	NAV88a	688-708	P	comp. to KNO_3, $NaNO_3$ (O1s - sol); δ(π-σ) versus R
	NAV88b	688-708	P	comp. to KNO_3, $NaNO_3$ (O1s - sol); δ(π-σ) versus R
	PV&90	680-700	P	comp. to NO_2^-, NO_3^-; δ(π-σ) versus R
	SU&97	680-710	P	PEPICO - E-resolved; partial X-sect.; ang. dist.; dynamics of $2a_2$ state

BeF_2	CC84	686	T	delta SCF, F1s->5σ* at 685.3 (T=6.27eV), excited & ion state diss.
$CClF_3$	ZIB92	680-740	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	SS&95	290-325	P	PIPICO; start = selective ion gate; PIPICO yields; comp of Cl2p, C1s, F1s edges; only selective at Cl 2p edge
	SS97a	680-750	P	PIPICO, BR and X-sect.; site-specific fragmentation
	SSB99	680-710	P	TIY, PIY; comp of CF_xCl_{4-x} x=1-3; site selective fragmentation
CCl_2F_2	ZIB92	680-740	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	BSS93b	50-1500	P	partial ion yields at coarse resolution
	SBS94a	670-730	P	partial ion yields; site-selective frag. at C 1s, Cl 2p, F 1s
	SSB94	670-730	P	partial ion-pair yields; site-selective frag.
	SS97	680-750	P	PIPICO, BR and X-sect.; site-specific fragmentation
	SSB99	680-710	P	TIY, PIY; comp of CF_xCl_{4-x} x=1-3; site selective fragmentation
CCl_2F_3P	HBC96	670-740	P	TIY, PIY, PEPIPICO; comp. of PCl_3, PF_3, CF_3PCl_2
CCl_3F	ZIB92	680-740	E	absolute, high res. (70 meV), pot. bar., comp. of CCl_xF_{4-x}, x=1-4
	SS97	680-750	P	PIPICO, BR and X-sect.; site-specific fragmentation
	SS98b	680-730	P	PIY, comp of C 1s, F1s, Cl 2p
	SSB99	680-710	P	TIY, PIY; comp of CF_xCl_{4-x} x=1-3; site selective fragmentation
CFHO	IH87	670-730	E	HCOF - formyl fluoride
	RI&88	670-730	E	absolute
	HC96	688	T	DFT, $\Delta^3\pi$-$^1\pi$ = 0.10 eV
CFH_3	L73	670-780	P	res. at thr.
	HB78a	680-700	E	res. at thr.
	SSH84a	690	T	σ*-res./bond length relationship
	US&96	682-696	P,T	TEY; Auger, AI; ultrafast decay proposed; SCF calc.
CF_2H_2	L73	670-780	P	res. at thr.
	SSH84a	690	T	σ*-res./bond length relationship
	US&96	682-696	P,T	TEY; Auger, AI; ultrafast decay proposed; SCF calc.
CF_2O	RI&88	680-730	E	C-F σ* res., absolute, perfluoro effect
	HC96	688	T	DFT, $\Delta^3\pi$-$^1\pi$ = 0.010 eV
CF_3H	L73	670-780	P	res. at thr., extended fine structure (EXAFS)
	SSH84a	690	T	σ*-res./bond length relationship
	HN86	680-720	E	absolute
	US&96	682-696	P,T	TEY; Auger, AI; ultrafast decay proposed; SCF calc.
CF_3NO	HIR89	680-730	E	absolute, σ*(C-F) dominates
CF_4	L73	670-780	P	absolute, res. at thr., extended fine structure (EXAFS)
	WB74d	685-725	E	strong t_2 res.
	BH81	680-740	E,R	wide range
	HS&81	685-705	T	X-α calc, comp. to WB74d
	SSH84a	690	T	σ*-res./bond length relationship
	SA&86b	690-780	P	absolute, t_2 res., comp. to C 1s
	SDD86	690-720	T	MS-Xα calc, β, partial X-sections, comp. to WB74d
	HI88b	600-1200	E	exelfs, q-dependence
	LM&89	625-825	P	total ion yield, TOF mass spec at 693, 742 eV
	ZC&89	670-740	E	absolute, check on conv. to absolute, comp. to PA (SA&86b, L73)
	HM94	670-750	E,R	absolute; improved method for X-section detection; this bibliography!!
	SBS94b	44-1500	P	partial & total ion yields; site-selective fragmentation; PEPIPICO; (F^+,CF_2^+), (F^+, CF^+) only prodcued at F 1s edge
	SBS95	684-718	P	PEPIPICO and KERD's; (C,F) site differences probed
	US&96	682-696	P,T	TEY; Auger, AI; ultrafast decay proposed; SCF calc.
	MU&99	686-700	P,T	TIY; ang. dep. by fast ion collection; F1s→σ*CF anisotropic; 42% core-hole localization; symmetry breaking
	TF&99	688-703	P	relative; TIY, threshold EY, TPEPIPICO; kinematics; branching ratios
CF_4O	MI&87	670-730	E	CF_3OF, low-lying σ*(O-F)

C_2FH_3	MC&87	680-730	E	σ*(C-F)
$C_2F_2H_2$	MC&87	680-730	E	(CH_2=CF_2), σ*(C-F)
$C_2F_2H_2$	MC&87	680-730	E	(CHF=CFH), σ*(C-F)
C_2F_3H	MC&87	680-730	E	σ*(C-F)
$C_2F_3H_3$	MS&84	606-777	P	ZEKE, mass spectrum at σ*(C-F), site-selective fragmentation
$C_2F_3HO_2$	RI&88	630-730	E	CF_3COOH, perfluoro effect
C_2F_3N	HS90	680-728	E	CF_3CN, absolute, comp. to $CF_3C{:::}CH$
C_2F_4	MC&87	680-730	E	σ*(C-F)
C_2F_6	HFM87	680-730	E	comp. of perfluoro-n-alkanes. σ*(C-F)
	IM&88	680-730	E	σ*(C-F), σ*(C-F) dominated
	AC&95	685-710	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
$C_2F_6O_2$	H86b	680-730	E	bis(trifluoromethyl)peroxide, orbital mapping
	MI&87	680-730	E	low-lying σ*(O-O)
	HM&89	680-730	P	absolute; total, partial ion yields; PIPICO, diss. IY; sel. frag.
C_3F_3H	HS90	680-728	E	CF_3CCH, absolute, comp. to CF_3CN
C_3F_6	IM&88	680-730	E	perfluorocyclopropane, comp. to C_4F_8, C_6F_{12}, σ*(C-F) dominated
C_3F_6O	RI&88	680-730	E	(perfluoroacetone), intense σ*(C-F) res., perfluoro effect
C_3F_8	HFM87	680-730	E	comp. of perfluoro-n-alkanes. σ*(C-F)
	IM&88	680-730	E	C_xF_{2x+2} series, σ*(C-F) dominated
C_4F_6	MC&87	680-730	E	perfluorobutadiene
C_4F_6	RI&88	680-730	E	$CF_3C{:::}CCF_3$
C_4F_8	RI&88	680-730	E	CF_3C=FCFCF_3
C_4F_8	IM&88	680-730	E	perfluorocyclobutane, comp. to C_3F_6 & C_6F_{12}, σ*(C-F) dominated
C_4F_{10}	HFM87	680-730	E	comp. of perfluoro-n-alkanes. σ*(C-F)
	IM&88	680-730	E	C_xF_{2x+2} series, σ*(C-F) dominated
	AC&95	685-710	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
C_5F_{10}	RI&88	680-730	E	perfluorocyclopentene
C_5F_{12}	RI&88	680-730	E	perfluorocyclopentane
C_5F_{12}	HFM87	680-730	E	comp. of perfluoro-n-alkanes. σ*(C-F)
	IM&88	680-730	E	per-F-n-pentane, C_xF_{2x+2} series, σ*(C-F) dominated
C_5F_{12}	IM&88	680-730	E	perfluoro-neo-pentane, comp. to C_2F_6, additional low-lying σ*(C-F)
C_6FH_5	HF&87	680-730	E	weak σ*(C-F)
	PY&97	684-700	T	STEX, comp to HF&87
$C_6F_2H_4$	HF&87	680-730	E	(1,4 = para-difluoro), weak σ*(C-F)
$C_6F_3H_3$	HF&87	680-730	E	(1,3,5-trifluoro), weak σ*(C-F)
$C_6F_4H_2$	HF&87	680-730	E	(1,2,4,5 = para-dihydro), weak σ*(C-F)
C_6F_5H	HF&87	680-730	E	weak σ*(C-F)
C_6F_6	HF&87	680-730	E	weak σ*(C-F)
	D92a	689	P	PEPICO, PEPIPICO at π* res.; comp. to C 1s
C_6F_{12}	IM&88	680-730	E	perfluoro-cyclohexane, comp. to C_3F_6, C_4F_8, σ*(C-F) dominated
C_6F_{14}	HFM87	680-730	E	comp. of perfluoro-n-alkanes. σ*(C-F)
	IM&88	680-730	E	perfluoro-n-hexane, σ*(C-F) dominated
	AC&95	685-710	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
C_8F_{18}	AC&95	685-710	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
$C_{10}F_8$	RI&88	680-730	E	perfluoronaphthalene, F1s-->π*
$C_{10}F_{16}$	HI88a	680-730	E	perfluoroadamantine; absolute
$C_{10}F_{22}$	AC&95	685-710	T	STEX ab initio; absolute; growth of poly-$(CF_2)_n$ by $C_{2n}F_{4n+2}$, n=1-5
ClF_3	BS87	680-730	E	high res.
	SB89	680-730	E	high res., partial bar. effects
FH	DC76	690-700	T	ab initio calc.
	MK&76	690-700	T	ab initio calc., oscillator strengths

	HB81b	680-720	E	comp. to F_2 spectrum
	B82a	680-720	E,R	comp. to F_2 spectrum, review (HB81b data)
	BD&82	680-720	E,R	review (HB81b data)
	SYD82	685-700	T	ab initio, absolute
	CC85	694	T	vibrational linewidths of discrete peak (σ*(HF)), dissociative state
	CH&85	685-695	T	ab initio, CI, reassigns HB81b spectrum
	S92	680-720	E,R	comp. of HX (X=CH_3, NH_2, OH, F)
	PB&99	684-694	T	variable resonant Auger if narrow band excite; time domain; excitation-decay interference
	PCT99	684-694	P	resonant Auger; dipole excitation computed; comp, to HB81; time domain; wave-packet dynamics; $^3\Sigma$ excited on low-E side of 687 band
F_2	HB81b	670-720	E	discrete σ* shape res.
	B82a	670-720	E,R	discrete σ* shape res., review (HB81b data)
	BD&82	680-720	E,R	review (HB81b data)
	SSH84b	690	T	prediction of σ* energy from E(Z,R)
	SG&89	680-700	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	S92	694	E,R	σ* position
F_2O	MI&87	675-715	E	low-lying σ*(C-F)
F_3N	VZ&74	675-725	P	pot. bar. effects, cont. res.
	BD&82	670-770	E,R	cont. shape res., pot. bar. effects
	SBC84	680-770	E	discrete σ* res., shake-up cont. comp. to XPS satellite
	SSH84a	690	T	σ*-res./bond length relationship
F_4N_2	HIR89	680-740	E	perfluoro-hydrazine, comp. to N_2H_4
F_3P	SB85c	685-760	E	comp. to PX_3 series
	HBC96	670-740	P	TIY, PIY, PEPIPICO; comp. of PCl_3, PF_3, CF_3PCl_2
	NJ&98	670-720	P,T	absolute; GSCF3 calc.; LS-state; comp of PX_3, YPF_3. X=Cl,F, Y=O,S)
F_3OP	SB85c	675-775	E	pot. bar. effects
F_5P	SB85c	675-775	E	pot. bar. effects
F_2OS	BHK92	680-700	T	ΔSCF, comp of all edges
F_4S	BH87	680-750	E	comp. to S2p, S2s, S1s
	KBH90	680-700	T	ab initio, comp. to BH87; revised σ*(S-F) assignments
	BHK92	680-700	E,T	ΔSCF, comp of all edges
F_4Si	VZ71a	680-745	P	cont. res., pot. bar. effects
	ZV71	680-750	P,R	pot. bar. effects
	ZV72	680-750	P,R	pot. bar. effects
	R75	680-700	T	alternate assignment of ZV72
	PV&82	680-720	P,T	relative, pot. bar. effects, comp. to theory
	LM&89	660-800	P	total ion yield, TOF MS; F^{2+} yield up x2 in cont.; sel. frag.
F_5I	CZB95	670-760	E	centrifugal pot. barrier; I 4f cont. res.; comp. to TeF_6, XeF_4
F_6S	VZF71	680-760	P	absolute, pot. bar. effects, extended fine structure (EXAFS)
	D72	680-760	P,R	pot. bar. effects
	GGL72	680-770	T	ab initio calc., pot. bar. effects
	L72	680-780	P	relative, pot. bar. effects
	VZ72	.01-1.5	P	absolute, charasteristic line measurements
	ZV72	675-760	P,R	pot. bar. effects
	B76b	680-1.03	E	cont. shape res., extended fine structure (EXAFS)
	H77b	680-720	T	HF improved VO; comp. to expt.
	HB78c	680-780	E	pot. bar. effects, extended fine structure (EXAFS)
	BD&82	680-690	E	calibration (a_{1g}=688.3eV)
	GN&83	680-750	P,T	comp. of core & valence cont. shapes
	SB84	688.27(s)	E	calibration standard (a_{1g})
	VA&85	680-730	P,R	comp. to BF_3, N_2, NO_3^-; KPF_6 (s); shape resonances
	KBH90	680-700	T	ab initio, comp. to SF_4 (BH87)

	NMA90	680-750	T	MS-Xα calc.; order of res. identified; comp. to expt. (ZV71)
	SB90	680-780	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. bar.s
	NMA91	680-740	T	absolute; DV-Xα; comp. to expt. (ZV71)
	BHK92	680-700	E,T	ΔSCF, comp. to expt (all edges)
	HS&93	680-735	P	relative; 0.3 eV fwhm; no vib. str; comp to (GGL72;H77;NMA90,91)
	SA93	650-750	P	XPS shakeup comp to ISEELS (HB78c); shape res. in shake spectra
	FT&95	680-720	E,T	dipole and non-dipole spectra same; 5 dipole allowed states; ΔSCF calc
	US&97	680-730	P,T	relative; TIY; polarized for energetic ions - changes observed !; βs; comp. to localized core hole calc; vibronically induced core hole localization
	FM&98	680-900	E	4 keV impact; Auger, no bound SF_6^{++} states
	U98	680-730	P,R,T	total ion yields; symmetry breaking
	EF&00	675-715	E	GOS; fifth state identified
F_6Se	SB90	680-780	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of potential barrriers
F_6Te	SB90	680-780	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of potential barrriers

Gadolinium 4d (145 eV)

GdF_3	CP84	120-190	P	4d->f cont. res., comp. to lineshape of C84, no F-influence

Gallium 3d (19 eV)

C_3H_9Ga	NS&89	14-31	P	$Ga(CH_3)_3$; threshold e-; PI efficiency; orbital rationale of fragmentation
	NS&90	14-31	P	ZEKE, PI yield, BR, comp. of methyl-metal frag. (Bi,Ga,Zn,Ge,Sn,Pb)

Gallium 3p, 3s (102, 160 eV)

C_3H_9Ga	US&90c	90-260	P	$Ga(CH_3)_3$, total & partial IYs; PIPICO; H^+ enhanced by sec. proc.

Gallium 1s (10.37 keV)

AsGa	BF&93	10.3-11.1	P	GaAs; EXAFS; in situ monitor of CVD; fluorescence detection

Germanium 3d (30 eV)

C_4GeH_{12}	NSK88	28-41	P	$Ge(Me)_4$, thresh. e-; ionic frag.; comp. of $M(Me)_4$ M=Ge,Sn,Pb
	NS&90	28-41	P	ZEKE, PI yield, BR, comp. of $M(Me)_x$ frag. (Bi, Ga, Zn, Ge, Sn, Pb)
Cl_4Ge	SN&86	21-42	P	threshold e-; review of apparatus

Germanium 3p (125 eV)

$C_{10}GeH_{20}N_2$	LU&99	110-140	E	unsaturated germylene; broad
$C_{10}GeH_{22}N_2$	LU&99	110-140	E	saturated germylene; broad
Cl_4Ge	GD&96	100-300	E,T	comp. to Cl 2p, Ge2p/3p of $GeCl_4$; comp. to ETS
GeH_4	HBK71	120-130	P	two lines at 124.7 & 129.7 eV

Germanium 2p, 2s (1210, 1420 eV)

C_3ClGeH_9	GD&96	1.21-1.27	P,T	ab initio SCF; comp. of $GeCl_4$, GeH_4, $GeMe_3Cl$
Cl_4Ge	M66	1.20-1.50	P	extended fine structure (EXAFS)
	PV&79	1.20-1.25	T	X-α (MSM) calc. of cont. shape, comp. to experiment (M66)
	GD&96	1.21-1.27	P,T	ab initio SCF; comp. of $GeCl_4$, GeH_4, $GeMe_3Cl$
	GDT97	1.21-1.27	P,T	relative; TIY, MS-Xα; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.;

F_4Ge	PV&79	1.20-1.25	T	X-α (MSM) calc. of cont. shape
GeH_4	GD&96	1.21-1.27	P,T	ab initio SCF; comp. of $GeCl_4$, GeH_4, $GeMe_3Cl$

Germanium 1s (11.17 keV)

GeH_4	G51	11.1-12.0	P	comp. to $GeCl_4$, absence of EXAFS
	NM&81	11.1-11.2	T	X-α (MSM) calc., comp. to experiment (G51)
	BB&88	11.0-11.3	P	EXAFS, expt test of multiple scat. (v.v. weak); σ*(Ge-Cl)
	GD&96	11.1-11.2	T	ab initio SCF; comp. to 2p, 2s calc; 2p experimental
$ClGeH_3$	BB&88	11.0-11.3	P	EXAFS, expt test of multiple scat. (v.v. weak); σ*(Ge-Cl)
Cl_4Ge	G51	11.1-12.0	P	(EXAFS)
	KE75	11.1-12.0	P	(EXAFS), comp. to theory
	NM&81	11.1-12.0	P	MSX-α; comp. to experiment (G51, KE75)
	BB&88	11.0-11.3	P	EXAFS, experimental test of mult. scattering (v.v. weak); σ*(Ge-Cl)
(Cl_4Ge cont'd)	BM&89b	11.0-11.3	P	EXAFS, experimental test of multiple scattering (v.v. weak)
	K92	11.0-11.3	R	survey of numerical XANES
	TH&92a	11.0-12.0	P,T	MS calc. of XFS amplitude red. factor; comp. of Br_2, $GeCl_4$, SF_6
	GD&96	11.1-11.2	T	ab initio, comp. to Cl 2p, Ge2p/3p of $GeCl_4$
	FA98	11.0-11.2	P	EXAFS; MSXα; high precision – 0.1 pm accuracy; comp to ED

Iodine 4d (55 eV)

BrC_2H_4I	TH&92	50-61	P	CH_2Br-CH_2I; TEY; TOF-MS & PIPICO; sel. frag.; pref. Br^+, I^+ -loss
CH_3I	HB78a	45-300	E	cont. res.
	CKS80	40-120	P	photographic, laser bombardment X-ray light source
	S82	45-150	P	photographic, laser-plasma source, cont. res.; 1.72(5) eV s-o split
	LK&84	50-250	P	absolute, photoemission (TOF), d-->εf res.
	BD&85	30-60	P	ion yields, PIPICO, selective fragmentation
	DH&86	40-60	P	ion yields, PIPICO, selective fragmentation
	MN87	43-58	P	TPES, DES at σ*(C-I) res., no dissociation prior to AI
	OCB98	5-480	E	absolute; (e,2e); (e,e+ion); ion yields, dipole induced breakdown
CIN	ML&94a	40-70	P	ICN; fluor.-photoion coinc (260-600 nm); excited parent & fragment ions
	ML&95	45,95	P	fluorescence-ion coinc.; complements PEPIPICO and (Auger, ion)
	SL&96	95	P,R	PE3PICO; atomic fragmentation; non-Coulombic mech.; impulsive model
C_2H_3I	SBK88	45-100	E	high res., comp. to other vinyl halides
C_6H_5I	HP&78	46-62	E	cont. res.
F_5I	CZB95	40-100	E	centrifugal pot. barrier; I 4f cont. res.; comp. to TeF_6, XeF_4
HI	KL86	50-100	T	atomic type d-->f res.; distinguished from molecular shape res.
	MN87	43-58	P	TPES, DES at σ*(C-I) res., no dissociation prior to AI
I_2	CNS73	45-160	P,T	absolute, gas-solid comp., Rydberg analysis IP (57.25, 58.95)
	MB87	25-130	E	thr. electron impact; I^+-yield follows 4d structure

Iodine 3d (650 eV)

CH_3I	HB78a	615-705	E	cont. res.
F_5I	CZB95	610-720	E	centrifugal pot. barrier; I 4f cont. res.; comp. to TeF_6, XeF_4

Iodine 1s (33.2 keV)

IBr	C37	33.2	P	50 eV about edge, gas-solid comp., edge shape
I_2	C37	33.2	P	50 eV about edge, gas-solid comp., edge shape

Iron 3p (60 eV)

$B_5C_{19}FeH_{17}O_2P$	HLD91	40-180	E	$Cp(CO)_2FeB_5H_2P(Ph)_2$
C_5FeO_5	MSN89	40-180	P	total, partial IYs; comp to Fe, $Fe_2(CO)_9$; mol. giant res.
	HWR90b	50-90	E	comp. to other Fe-org, Fe2p; ligand effect on metal np
	WRH92	50-90	E	absolute, comp. of organo-iron complexes, ligand interaction effects
$C_7FeH_6O_3$	WRH92	50-90	E	$RFe(CO)_3$, R=butadiene; absolute, organo-irons; ligand interactions
$C_9FeH_8O_3$	HWR90b	50-90	E	$CxFe(CO)_3$; comp. to other Fe-org, Fe2p; ligand effect on metal np
	WRH92	50-90	E	absolute, organo-irons; ligand interactions
$C_9Fe_2O_9$	MSN89	40-180	P	total, partial IYs; comp to Fe, $Fe(CO)_5$; mol. giant res.
	WRH92	50-90	E	absolute, organo-irons; ligand interactions
$C_{10}FeH_{10}$	HWR90b	50-90	E	comp. to other Fe-org, Fe2p; ligand effect on metal np
	WRH92	50-90	E	absolute, organo-irons; ligand interactions
$C_{11}FeH_6O_3$	WRH92	50-90	E	$RFe(CO)_3$, R=COT; absolute, organo-irons; ligand interactions
$C_{12}FeH_{12}$	WRH92	50-90	E	RCpFeCp R=ethylene; absolute, organo-irons; ligand interactions
$C_{14}FeH_{18}$	WRH92	50-90	E	RCpFeCp R=butane; absolute, organo-irons; ligand interactions

Iron 2p, 2s (707,720, 845 eV)

$B_5C_{19}FeH_{17}O_2P$	HLD91	650-760	E	$Cp(CO)_2FeB_5H_2P(Ph)_2$
$C_2FeN_2O_4$	DFL92	660-670	T	$Fe(CO)_2(NO)_2$; absolute; ab inito-SCF-CI; comp. of 3d spectra of 5 TM compounds; supports MO-model for edge resonances
C_5FeO_5	MSN89	650-760	P	total, partial ion yields; comp to Fe, $Fe_2(CO)_9$
	HWR90b	650-760	E	comp. to other Fe-org, Fe2p; ligand effect on metal np
	WRH92	650-760	E	absolute, comp. of organo-iron complexes, ligand interaction effects
	FD&93	704-714	T	LCAO-SCF-CI; comp. of L-edges of organometallics
$C_7FeH_6O_3$	WRH92	650-760	E	$RFe(CO)_3$, R=butadiene; absolute, organo-irons; ligand interactions
$C_9FeH_8O_3$	HWR90b	650-760	E	$CxFe(CO)_3$; comp. to other Fe-org, Fe2p; ligand effect on metal np
	WRH92	650-760	E	absolute, organo-irons; ligand interactions
$C_9Fe_2O_9$	MSN89	650-760	P	total, partial ion yields; comp to Fe, $Fe(CO)_5$
	WRH92	650-760	E	absolute, organo-irons; ligand interactions
$C_{10}FeH_{10}$	HWR90b	650-760	E	comp. to other Fe-org, Fe2p; ligand effect on metal np
	WRH92	650-760	E	absolute, organo-irons; ligand interactions
	FD&93	704-714	T	LCAO-SCF-CI; comp. of L-edges of organometallics
	HR&93b	704-734	P	total ion yield; absolute; comp. of $NiCP_2$, $FeCp_2$
	G94	700-740	R	atomic multiplet calc.; review of 2p spectra of all TM cmpds
$C_{11}FeH_8O_3$	WRH92	650-760	E	$RFe(CO)_3$, R=COT; absolute, organo-irons; ligand interactions
$C_{12}FeH_{12}$	WRH92	650-760	E	RCpFeCp R=ethylene; absolute, organo-irons; ligand interactions
$C_{14}FeH_{18}$	WRH92	650-760	E	RCpFeCp R=butane; absolute, organo-irons; ligand interactions

Iron 1s (7.11 keV)

$Fe(CO)_5$	JP58	7.10-7.15	P	gas-solid comp.
	K87	7.10-7.14	P	gas-liquid comp., identification of Rydbergs
	FDL93	7.10-7.14	T	absolute; LCAO-SCF-CI; comp. to Cr 2p results; Ni, Fe, Cr cmpds
$Fe(Cp)_2$	JP58	7.10-7.15	P	gas-solid comp.
	FDL93	7.10-7.14	T	absolute; LCAO-SCF-CI; comp. to Cr 2p results; Ni, Fe, Cr cmpds
$FeCl_2$	CK&83	7.10-7.13	T	absolute, energy dependent Dirac calc, spin-dependence
Fe_2	WRE89b	7.10-7.15	T	DV-Xα; XANES; discrete res.; comp. to Ni_2, Ni_3

Krypton 3d (92 eV)

Kr_n	KWR98	89-96	P	TEY; Kr_2^+ yield as f(<size>); site specific spectral features (surf, bulk)

Krypton 2p (1680 eV)

Kr_n	SG&95a	1660-1760	P	gas,cluster comparison, 3d exciton in cluster is 0.5 eV above gas

Krypton 1s (14.11 keV)

Kr_n	SG&95a	14.3-14.4	P	gas,cluster comparison, 3d exciton in cluster is 0.5 eV above gas
	FPH97	14.2-14.9	P,T	clusters trapped in Be, Si; Feff; no EXAFS detected; shift in second XANES peak 6 NN contraction; T-dep. used to estimate DW factor
KrF_2	KE&83	14.3-14.4	P	gas-solid comp., near-edge res.
	CK&85	14.3-14.4	T	absolute, shape res. at edge

Lanthanum 4d (100 eV)

LaF_3	CP&80	95-145	P	comp. to gas (R79) & metal La, no fluorine effect

Lead 5d (20 eV)

$C_4H_{12}Pb$	NSK87	14-30	P	$Pb(CH_3)_4$; thresh. e-; TEPICO, ionic frag.
	NSK88	28-41	P	thresh. e-, ionic frag. yields, comp. of $M(Me)_4$ M=Ge,Sn,Pb
	NK&89	28-41	P	ZEKE, PI yield, BR, comp. of $M(Me)_x$ frag. (Bi, Ga, Zn, Ge, Sn, Pb)
	NS&90	28-41	P	ZEKE, PI yield, BR, comp. of $M(Me)_x$ frag. (Bi, Ga, Zn, Ge, Sn, Pb)

Lead 5p,5s,4f (90,120,170 eV)

$C_4H_{12}Pb$	NS&90	50-200	P	total & partial ion yields, site/core-hole seletive frag.

Lithium 1s (55 eV)

LiCl	RS74	55-70	P	comp. to theory
LiCl	RS&76	55-70	P	photographic, gas-solid comp., Z+1 analogy
LiF	RS&76	55-70	P	photographic, gas-solid comp., Z+1 analogy
	SC76	55-65	T	multi-configuration calc. of core-excited states
LiH	SWD75	55-70	T	ab initio
	KW81	55-70	T	ab initio calc. of pot. curves (LiH, LiH^+)
	DYM86	55-70	T	valence bond, ab initio, comp. to Li
Li_2	SC76	55-65	T	multi-configuration calc. of core-excited states
	SB&78	56-63	P	photographic, vibnl structure, ab initio theory, pressure dependence
	DCZ83	50-110	T	one-electron, cont. X-sect.; 2 near-edge at. peaks, no shape res. comp. to N_2, Li & N, no Cooper minimum
Li_2Cl_2	RS&76	55-70	P	photographic, gas-solid comp., Z+1 analogy

Manganese 3p (60 eV)

C_5MnO_5Br	HSW89	40-90	E	$Mn(CO)_5Br$, comp. to $Mn(CO)_{10}$
$C_9H_7MnO_3$	W92	40-90	E	Me-$CpMn(CO)_3$, absolute
$C_{10}Mn_2O_{10}$	HSW89	40-90	E	$Mn_2(CO)_{10}$, absolute, comp to CO, $Mn(CO)_5Br$
$C_{13}H_{15}MnO_3$	WRH89	40-90	E	$C\pi*Mn(CO)_3$; absolute

Manganese 2p (645, 665 eV)

C_5MnO_5Br	RH89	620-665	E	$Mn(CO)_5Br$, comp. to $Mn(CO)_{10}$
	HWR90b	620-665	E	comp. to metal 2p; ligand effect on metal np
$C_9H_7MnO_3$	W92	620-665	E	Me-$CpMn(CO)_3$, absolute
$C_{10}Mn_2O_{10}$	RH89	620-665	E	$Mn_2(CO)_{10}$, absolute, comp to CO, $Mn(CO)_5Br$
	HWR90b	630-670	E	comp. to metal 2p; ligand effect on metal np
$C_{13}H_{15}MnO_3$	WRH89	630-670	E	Cπ*$Mn(CO)_3$; absolute
$ClMnO_3$	DF&94	640-660	T	ab initio CI; relaxed orb.; trends in MO_xX_y (Ti,V,Cr,Mn); covalency increases as Cl 6 F
$FMnO_3$	DF&94	640-660	T	ab initio CI; relaxed orb.; trends in MO_xX_y (Ti,V,Cr,Mn); covalency increases as Cl 6 F

Manganese 1s (6.539 keV)

$ClMnO_3$	DF&94	6.52-6.54	T	ab initio CI; relaxed orb.; MO_xX_y (Ti,V,Cr,Mn); coval. increases as Cl–>F
$FMnO_3$	DF&94	6.52-6.54	T	ab initio CI; relaxed orb.; MO_xX_y (Ti,V,Cr,Mn); coval. increases as Cl–>F
Mn_2	WRE89a	6.52-6.56	T	DVM-Xα; XANES; comp. of Co_2, Mn_2, Ni_2

Mercury 2p (12.3, 14.2 keV)

Cl_2Hg	YK&96	12.2-13.3	P,T	T-dependent xafs; cumulant analysis, Feff 6.0, force constants, anharmonicity

Molybdenum 3d (230 eV)

C_6MoO_6	TD&92a	200-280	E	$Mo(CO_6$; comp. of 2p and 3d edges

Molybdenum 2p (2520,2625 eV)

C_6O_6Mo	TD91	2.50-2.80	P	$Mo(CO)_6$; XANES & EXAFS; less multipole in 2p->4d than 2p->3d
	TD&92a	2.50-2.80	P	comp. of 2p and 3d edges
	GD&95	2.52-2.64	P,T	TIY; ab initio CI; Mo d,p character of orbitals estimated
F_6Mo	GH&94	2.52-2.63	P,T	comp. to crystal field multiplets; other MX_6 species; L_3 & L_2 edges differ
	GD&95	2.52-2.64	P,T	TIY; ab initio CI; Mo d,p character of orbitals estimated

Molybdenum 1s (20,000 eV)

C_6O_6Mo	GD&95	2.52-2.64	P,T	$Mo(CO)_6$; TIY; ab initio CI; Mo d,p character of orbitals estimated
F_6Mo	GD&95	2.52-2.64	P,T	TIY; ab initio CI; Mo d,p character of orbitals estimated

Neon 1s (870 eV)

Ne_n	FB&94	860-960	P	variable cluster size; Rydbergs, XANES and EXAFS
	BF&95a	860-960	P	EXAFS as f(cluster size); apparatus and beamline performance
	KB&97	860-920	P	near edge as f(cluster size)

Nickel 3p, 3s (78, 100 eV)

$B_{18}C_4H_{22}Ni$	HLD91	40-180	E	$Ni(B_9H_{11}C_2)_2$, Ni bollyl complex (Cp-analog)
C_4NiO_4	CSB90	60-110	E	$Ni(CO)_4$; comp. to CO
$C_{10}H_{10}Ni$	RH89b	50-200	E	$Ni(Cp)_2$; comp to other metallocenes

Nickel 2p (860,880 eV)

C_4NiO_4	DFL92	855-865	T	$Ni(NO)_4$; absolute; ab inito-SCF-CI; comp. of 3d spectra of 5 TM compounds; supports MO-model for edge resonances
	FD&93	855-865	T	LCAO-SCF-CI; comp. of L-edges of organometallics
$C_6H_{10}Ni$	DFL92	855-865	T	$Ni(C_3H_5)_4$; absolute; ab inito-SCF-CI; comp. of 3d spectra of 5 TM compounds; supports MO-model for edge resonances
$C_{10}H_{10}Ni$	RH93b	845-880	P	$Ni(Cp)_2$; total ion yield; comp. of $NiCp_2$ and $FeCp_2$

Nickel 1s (8.333 keV)

$(CO)_4Ni$	FDL93	5.98-6.04	T	$Ni(CO)_4$; absolute; ab initio SCF-CI; comp. to 2p; Ni, Fe, Cr cmpds
Ni_2	WRE89a	8.32-8.36	T	DVM-Xα; comp. of Co_2, Mn_2, Ni_2; bond length effect (4.2-4.9 au)
Ni_2	WRE89b	8.32-8.36	T	DV-Xα; XANES; discrete res.; comp. of Fe_2, Ni_2, Ni_3
Ni_3	WRE89b	8.32-8.36	T	DV-Xα; XANES; discrete res.; comp. of Fe_2, Ni_2, Ni_3

Nitrogen 1s (410 eV)

BrCN	OBI95	380-460	E,T	absolute; 0.1-1 eV fwhm; low lying σ*(C-Br) below π*(CN)
$B_3N_3H_6$	DG&86	395-445	E	(borazine), comp. to Bz & cyclohexane, aromatic, two σ* res.
	VNP91	396-422	E	comp. of benzene, BN(s) and borazine; shape res. MO not R-related
	SC95	399	T	ADC local/delocal calc; Jahn-Teller localisation; comp. to B 1s, $C_3H_3^+$
CF_3NO	HIR89	390-440	E	absolute
CHN	HB79a	395-435	E	(HCN), cont. res.
	HB79b	395-435	E	cont. res., Z+1 analogy
	SSH84a	420	T	σ*-res./bond length relationship
	SG&89	410-430	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	LAL91	400-420	T	CNDO, systematic treatment of σ* energies
	ZZ&92	400-410	T	ΔSCF; core hole localisation; gen. rules for MO shifts in 2nd row
	AC&94	390-430	T	ab initio RPAE-STEX; comp of RCN (R=H,C_nH_{2n-2}, n=1,2,3,5,11); no σ*(C-C) in N 1s; supports building block model
CH_3NO	IH87	390-440	E	$HCONH_2$ - formamide, comp. to (HCX, X=OH,F)
CH_3NO_2	VA&92	250-750	P	absolute; analysed as (CH_3^+, NO_2^-); bond length corr.; 0.6 e- in N 2p
CH_4N_2O	UH&95b	390-428	E,T	$(NH_2)_2CO$, urea; absolute; modelling of polyurethane
CH_5N	WB74b	395-435	E	(CH_3NH_2 - methylamine) res. at thresh.
	SSH84a	410	T	σ*-res./bond length relationship
	SB85b	395-445	E	σ* res. at thresh., comp. to $(CH_3)_xNH_{3-x}$,x=0-3
	LAL91	400-420	T	CNDO, systematic treatment of σ* energies
	TD&92b	400-450	P	PIY; charge separation mass spec; decay dynamics
C_2Cl_3N	IO&99	390-440	P	absolute; selected E mass spec; no site-specific fragmentation
C_2D_3N	SY&99	395-440	P	CD_3CN; relative; TIY, PIY; comp. of D/H; VARTMAN; anisotropic fragmentation at π*
C_2F_3N	HS90	395-455	E	CF_3CN, absolue, comp. to other triply bonded species
$C_2FeN_2O_4$	SL&92	390-420	P	PEPIPICO; non-selective, step-wise fragmentation
C_2H_3N	HM&89	390-480	P	absolute; total, partial ion yields; PIPICO, diss. IY; sel. frag.
	HTM89	390-440	E,P	(CH_3CN), comp. to solid, σ* res./bond length
	AC&94	390-430	T	ab initio RPAE-STEX; comp of RCN (R=H,C_nH_{2n-2}, n=1,2,3,5,11); no σ*(C-C) in N 1s; supports building block model
	SY&99	395-440	P	relative; TIY, PIY; D/H comp; VARTMAN; π* anisotropic frag.
C_2H_3N	HTM89	390-440	E	(CH_3NC), comp to CH_3CN, vibrational ELS
C_2H_3NS	HTM89	390-440	E	(CH_3SCN), comp to CH_3NCS, vibrational ELS

C_2H_3NS	HTM89	390-440	E	(CH_3NCS), comp to CH_3SCN, vibrational ELS
$C_2H_5NO_2$	PC&98	400-430	T	glycine; STEX; comp. of NEXAFS and circ. dichr. of amino acids
	GC&03	398-420	E,T	absolute, comp Gly, Gly-Gly; tri-gly(s); peptide bonds; GSCF3
$C_2H_5N_3O_2$	UA&99	390-420	E	biuret; ($NH_2(CO)NH(CO)NH_2$); absolute
	LCH03	390-420	E,T	malonamide; comp.of di-carbonyls; charge shifts for fingerprinting, GSCF3
C_2H_7N	SB85b	395-445	E	σ^* res. at thresh., comp. of $(CH_3)_xNH_{3-x}$,x=0-3
C_2N_2	HB79b	390-430	E	cont. res.
	SSH84a	420	T	σ^*-res./bond length relationship
	SG&89	410-430	T	σ^* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
C_3H_3N	HA&97	395-427	E,T	acrylonitrile; relative; Z+1 calc'n; π^* interactions; comp. of CH_2=CHCN, $C_2H_2(CN)_2$, CH_2=$CHCH_2CN$
C_3H_3NO	IO&00	395-445	P	absolute; E-selected mass spec; low-lying $\pi^*_{N=C}$
C_3H_3NS	HH&96	392-427	P	thia-azole; absolute; E-selected mass spec; low-lying $\pi^*_{N=C}$
$C_3H_3NO_2$	IO&00	395-445	P	absolute; E-selected mass spec; comp to $C_4H_5NO_2$; size dep..frag.
$C_3H_3N_3$	DR&89	395-420	P	s-triazine; condensed films, comp. to pyrazine & pyridine; DES
	AGH93	390-430	E	absolute; comp. to solid
$C_3H_4N_2$	AGH93	390-430	E,P	imidazole; absolute; gas-EELS; comp. to sol.-NEXAFS
$C_3H_4N_2$	DH&98	395-420	P	pyrazole, relative, 0.2 eV fwhm, Z+1 HONDO, pyyrole vs. pyrazole
C_3H_5N	AC&94	390-430	T	C_2H_5CN, ab initio RPAE-STEX; comp of RCN (R=H,C_nH_{2n-2}, n=1,2,3,5,11); no σ^*(C-C) in N 1s; supports building block model
$C_3H_6NO_2$	GH01	390-420	E	alanine; absolute; comp of amino acids
$C_3H_6NO_2S$	PC&98	400-430	T	cysteine; (D-,L) STEX; comp. of NEXAFS, circ. Dichr. of amino acids
$C_3H_6N_2O_2$	LCH03	280-320	E,T	malonamide; comp.of di-carbonyls; charge shifts for fingerprinting, GSCF3
$C_3H_7NO_2$	UH&95b	390-440	E	NH_2CO_2Et, absolute; modelling of polyurethane PEELS
$C_3H_7NO_2$	PC&98	400-430	T	alanine; (D-,L-) STEX; comp. of NEXAFS, circ. Dichr. of amino acids
$C_3H_7NO_3$	PC&98	400-430	T	serine; (D-,L-) STEX; comp. of NEXAFS, circ. Dichr. of amino acids
C_3H_9N	SB85b	395-445	E	σ^* res. at thresh., comp. of $(CH_3)_xNH_{3-x}$,x=0-3
	LAL91	400-420	T	CNDO, systematic treatment of σ^* energies
$C_4H_2N_2$	HA&97	395-427	E,T	dicyano-ethylene; relative; Z+1 calc'n; π^* interactions; comp. of CH_2=CHCN, $C_2H_2(CN)_2$, CH_2=$CHCH_2CN$
$C_4H_4N_2$	DR&89	395-420	P	pyrazene; condensed films, comp. to pyridine & triazene; DES
$C_4H_2N_2$	HD&99	395-420	E,T	pyridazine; 0.2 eV fwhm; Z+1 calc; comp to pyridine; s-triazine
C_4H_5N	PH&95	390-430	P,T	(pyrrole); comp. to polypyrrole; π^* 1 eV below in polymer; comp to other molecular solids; quasi-atomic calculation
	HH&96	392-427	P	comp. of pyrrole derivatives (N-Me, oxazole, thiazole); inductive, mesomeric efects
	NIH86	390-440	E	comp. to other heterocyclics
	DH&98	390-440	E,T	pyrazole, relative, 0.2 eV fwhm, Z+1 HONDO, pyyrole vs. pyrazole
C_4H_5N	HA&97	395-427	E,T	allylcyanide; relative; Z+1 calc'n; π^* interactions; comp. of CH_2=CHCN, $C_2H_2(CN)_2$, CH_2=$CHCH_2CN$
$C_4H_5NO_2$	IO&99	390-440	P	$MeO(CO)CH_2CN$; absolute; N1s, O1s $\rightarrow \pi^*$ mass spect; site sel. frag.
	IO&00	395-445	P	absolute; E-selected mass spec; comp to $C_3H_3NO_2$; size dep..frag.
C_4H_7N	AC&94	390-430	T	C_3H_7CN, ab initio RPAE-STEX; comp of RCN (R=H,C_nH_{2n-2}, n=1,2,3,5,11); no σ^*(C-C) in N 1s; supports building block model
$C_4H_7NO_2$	LCH03	390-420	E,T	Me(CO)N(CO)Me; di-acetamide; di-carbonyls; charge shifts, GSCF3
$C_4H_8N_2O_2$	UH&99	395-435	E,T	ehthyl allophanate; absolute; GSCF3; comp. of urethane species
$C_4H_8N_2O_3$	GC&03	398-420	E,T	absolute, comp Gly, Gly-Gly; tri-gly(s); peptide bonds; GSCF3
C_4H_9N	NIH86	390-440	E	(pyrrolidine), comp. to other heterocyclics
$C_5H_2N_4$	AGH93	390-430	E,P	dicyano-imidazole; absolute; gas-EELS; comp. to sol.-NEXAFS
C_5H_5N	HS&85	390-440	E,P	(pyridine), gas, solid, monolayer comp.
	AV&85	396-423	P	absolute, I($2\pi^*/1\pi^*$)=1.3 versus 6 (HS&85), comp. of C_6H_6, C_6H_5X
	DR&89	395-420	P	condensed films, comp. to pyrazine & triazene; DES

	ED&90	399	P	DES, dynamic screening effects; comp. of N_2, N_2O & azabenzenes
	H90a	390-440	E	comp. to reflection EELS of surf. adsorbed Py (on Ag)
	HD&99	395-420	E,T	0.2 eV fwhm; Z+1 calc; comp to pyridazine; s-triazine
	CPA01	390-430	T	STEX with screening; comp. to expt. (HS&85)
	KP&01	395-415	P,T	relative; high res – 150 meV; DFT; vibrations resolved; π* intensities
C_5H_7N	HH&96	390-430	P	N-methyl pyrrole; inductive, mesomeric efects
$C_5H_{10}N_2$	HE&01	395-420	E	methyl-carbene; thermal decomposition of tetra-amino ethylene
$C_5H_{11}N$	NIH86	390-440	E	(piperidine)
$C_5H_{11}NO_2$	PC&98	400-430	T	valine; (D-,L-) STEX; comp. of NEXAFS, circ. Dichr. of amino acids
$C_5H_{15}NSi$	UH94b	390-440	E	$Me_3Si(NMe_2)$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_6H_4N_2S$	HD&91	390-430	E	Bz(N-S) ring; comp. of S-N heterocyles, aromaticity
$C_6H_4N_2S_2$	HD&91	390-430	E	Bz(N-S) ring; comp. of S-N heterocyles, aromaticity
$C_6H_4N_2S_3$	HD&91	390-430	E	Bz(N-S) ring; comp. of S-N heterocyles, aromaticity
$C_6H_5NO_2$	TUH96	390-430	E,T	nitrobenzene; absolute, EHMO, comp. to aniline, nitroanilines
$C_6H_6N_2O_2$	TUH96	390-430	E,T	(1,2)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
$C_6H_6N_2O_2$	TUH96	390-430	E,T	(1,3)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
$C_6H_6N_2O_2$	TUH96	390-430	E,T	(1,4)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
C_6H_7N	HUR93	390-430	E	aniline, comp. to dimethylaniline
	TUH96	390-430	E,T	absolute, EHMO, comp. to nitrobenzene, nitroanilines
	PY&97	395-425	T	STEX, comp to TUH96; ring substituent effects (Bz-X, X=F,OH,NH_2)
	CPA01	280-320	T	STEX with screening; comp. to expt. (HUR93)
$C_6H_{12}N_2$	RUH95	390-430	E	DABCO; absolute
$C_6H_9N_3O_3$	UA&99	390-430	E	trimethyl-isocyanurate; absolute; polymer model
$C_6H_{12}N_2Si$	UH&94b	390-420	E	bis(dimethylamino)dimethylsilane; exploring Si-N bond
C_7F_5N	IOG97	390-440	P	C_6F_5CN; absolute; reflectron TOF; π* split; sym. resolved; comp. of (C_7F_5N, C_6H_5CN,p-$CF_3C_6H_4CN$, p-$CF_3C_6H_4NCO$)
	IO&99	390-430	P	TIY; comp of C1`s, N1s; no site selectivity; mass spec at π^*_{ring}
C_7H_5N	H92a	390-440	E,T	absolute; EHMO
$C_7H_7NO_2$	UH&95b	390-440	E	NH_2CO_2Ph, absolute
$C_7H_8N_2O$	UH&95a	390-430	E	NH_2CO_2Ph,phenylurea; absolute; comp. to model polyurethanes
	UH&95b	390-440	E	absolute; ureas and urethanes similar at N 1s
$C_7H_8N_2O$	UH&95a	390-420	E	phenylurea; absolute; modelling of polyurethane PEELS
C_7H_9N	UH96	390-430	E	N-methyl aniline; absolute
$C_7H_{15}N$	AC&94	390-430	T	$C_6H_{15}CN$, ab initio RPAE-STEX; comp of RCN (R=H,C_nH_{2n-2}, n=1,2,3,5,11); no σ*(C-C) in N 1s; supports building block model
$C_7H_{18}N_3Si$	UH&94b	390-430	E	tris(dimethylamino)methylsilane; exploring Si-N bond
$C_8F_3H_4NO$	IO&99	390-440	P	p-$CF_3C_6H_4NCO$; TIY; N1s, O1s →π* frag.; no site selectivity
C_8H_9NO	UH&95b	390-430	E	benzyl carbamate; absolute; modelling polyurethanes
$C_8H_9NO_2$	GH01	390-430	E	phenylalanine, comp. of amino acids
$C_8H_{11}N$	HUR93	390-430	E	N,N-dimethylaniline
$C_8H_{24}N_4Si$	UH94b	390-440	E	$Si(NMe_2)_4$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_9H_6N_2O_2$	UHR99	390-420	E,T	2,4-TDI, absolute; isomeric effect
$C_9H_6N_2O_2$	UHR99	390-420	E,T	2,6-TDI, absolute; isomeric effect
$C_9H_{11}NO_2$	UH&95b	390-440	E	Ph-$NHCO_2Et$, absolute; modelling of polyurethane PEELS
$C_9H_{27}NSi_3$	UH94b	390-440	E	$N(SiMe_3)_3$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_{10}H_{19}N_2O_2$	LCH03	280-320	E,T	comp.of di-carbonyls; charge shifts for fingerprinting, GSCF3
$C_{10}H_{20}N_2$	LU&99	394-418	E	tBu-NC=CN-tBu; absolute; ligand rel. to cyclic diamino C:,Si:,Ge.
	HE&01	395-420	E	reference for thermal decomposition of tetra-amino ethylene
$C_{10}H_{20}N_2$Ge	LU&99	396-412	E,T	c-Ge(RNCH=CHNR), comp.cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{20}N_2$Si	UH&98	396-412	E,T	c-Si(RNCH=CHNR), R=tBu, silylene; absolute; delocal. in Si-N-C=C
	LU&99	394-418	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{22}N_2$	LU&99	394-418	E	tBu-NCH_2CH_2N-tBu; absolute; ligand rel. to cyclic diamino C:,Si:,Ge.
$C_{10}H_{22}N_4$	HE&01	395-420	E	tetra-amino ethylene; used for thermal decomposition to form carbene

$C_{10}H_{22}N_2Ge$	LU&99	396-412	E,T	c-Ge($RNCH_2CH_2NR$), comp. cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{22}N_2Si$	UH&98	396-412	E,T	c-Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute;
	LU&99	394-418	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{22}N_2Ge$	LU&99	396-412	E,T	c-H_2Ge(RNCH=CHNR), cyc. diamino C:, Si:, Ge: comp ; GSCF3 ab initio
$C_{10}H_{22}N_2Si$	UH&98	396-412	E,T	c-H_2Si(RNCH=CHNR), R=tBu, silylene; absolute; no delocal.
	LU&99	394-418	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{24}N_2Ge$	LU&99	396-412	E,T	c-H_2Ge($RNCH_2CH_2NR$), cyc. diamino C:, Si:, Ge: comp; GSCF3 ab initio
$C_{10}H_{24}N_2Si$	UH&98	396-412	E,T	c-H_2Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute;
	LU&99	394-418	E,T	absolute; comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio
$C_{10}H_{13}NO_2$	UH&95b	390-440	E	Ph-N(CH_3)-CO_2Et, absolute; modelling of polyurethane PEELS
$C_{11}H_{14}N_2O_4$	UHR99	390-440	E	TDI-bis-methyl urethane; absolute
$C_{11}H_{20}N_2$	LU&99	396-412	E,T	c-C:(RNCH=CHNR), comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio; saturated carbene
$C_{11}H_{22}N_2$	LU&99	396-412	E,T	c-C:($RNCH_2CH_2NR$), comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio; unsaturated carbene
$C_{11}H_{24}N_2$	LU&99	396-412	E,T	c-H_2C:($RNCH_2CH_2NR$), comparison of cyclic diamino C:, Si:, Ge: ; GSCF3 ab initio; protonated carbene
$C_{12}H_{15}N_2O_2Re$	HS92	390-440	E	Cπ*Re$(CO)_2N_2$; absolute; split N1s->π* (N_a-N_b chem. shift)
$C_{12}H_{23}N$	AC&94	390-430	T	$C_{11}H_{23}N$, ab initio RPAE-STEX; comp of RCN (R=H,C_nH_{2n-2}, n=1,2,3,5,11); no σ*(C-C) in N 1s; supports building block model
$C_{13}H_{12}N_2O$	UH&95b	390-440	E	(Ph-$NH)_2$C=O, absolute; modelling of polyurethane PEELS
	UA&99	390-430	E	tritolylisocyanurate; absolute, polymer model
$C_{21}H_{15}N_3O_3$	UHR92	390-440	E	$(Bz\text{-}O)_3$C3N3 (tri-phenoxy-triazine); polyurethane modelling
	UA&99	390-430	E	absolute, polymer model
$C_{24}H_{21}N_3O_3$	UA&99	390-430	E	tritolylisocyanurate; absolute, polymer model
$C_{32}H_{16}N_8Ni$	RSH93	50-450	E	Ni-phythalocyanine; compared to solid
D_3N	ST&93	400-405	P,T	high res; ab initio; no resolved vib; comp. to NH_3 (no 3s vibronic); comp of H_2O, NH_3, CH_4 re Ryd/val char.
F_3N	ZV72	396-415	P	pot. barr. effects
	BK74	396-415	P	pot. barr. effects
	VZ&74	398-425	P	pot. barr. effects
	BD&82	400-450	E,R	pot. barr. effect
	DR83	390-415	E	ion yield appearance pot., 1s->π* thresh. observed
	SBC84	400-450	E	discrete σ*(N-F), shake-up continua comp. to XPS satellite
	SSH84a	420	T	σ*-res./bond length relationship
	LAL91	400-420	T	CNDO, systematic treatment of σ* energies
	JC01	397-417	P	relative; comparison of NX_3, PX_3 1s edges; pot. barr. effects
F_4N_2	HIR89	390-440	E	per-fluorohydrazine, comp to N_2H_4, NH_3
H_2N	CC&82	405-415	T	ab initio calc. (CI)
H_3N	WB74b	395-435	E	weak cont. features
	WB74g	395-425	T	Z+1 analogy
	WB74h	395-425	E	Z+1 analogy
	S75b	400-420	T	Z+1 analogy calc., comp. to expt. (WB74b)
	DC76	400-420	T	absolute
	S76a	400-420	T	Z+1 analogy calc., comp. to expt. (WB74b)
	S76b	400-420	T	Z+1 analogy calc., comp. to expt. (WB74b)
	A80	400-415	P	relative, see SYD82
	AVZ82b	400-412	P	comp. to H_2O,CH_4,Ne, 3p splitting=0.6eV
	SYD82	400-415	T	ab initio, absolute, comp. to expt (A80)
	DR83	390-415	E	ion yield appearance pot.; 1s->π* thresh. observed
	RR&83	395-435	P	H^+ IY from surface of condensed NH_3, EY, extra peak at 420eV
	SSH84a	420	T	σ*-res./bond length relationship

	CH&85	400-410	T	Rydberg assignments comp. to 2nd & 3rd row hydrides
	SB85b	399-410	E	0.14eV FWHM, further Ryd. resolved & reassigned, as AVZ82b
	AVZ88	400-425	P	absolute; comp. of NH_3, N_2, Ne; res. effects; atomic 2p resonance
	H90a	395-425	E,R	absolute, comp. of N_2, NH_3, N_2H_4, Ne; σ* vs. Ryd
	MR&90	390-440	P	H^+ des. from Ru-adsorbed; comp. to AEY, TEY, gas (WB74b)
	RC&90	390-440	P	comp. of gas, solid; ion yields, H^+ ultrafast diss.
	JC01	397-417	P	relative; comparison of NX_3, PX_3 1s edges; pot. barr. effects
	LAL91	400-420	T	CNDO, systematic treatment of σ* energies
	S92	395-435	E,R	comp. of NH_3, N_2H_4, N_2; σ*(N-N)
(NH_3 cont'd)	ST&93	400-405	P,T	high res; ab initio; no resolved vib; comp. to NH_3 (no 3s vibronic); comp of H_2O, NH_3, CH_4 re Ryd/val char.NH_4
	KNP92	400-408	T	SCF-CI in (Z+1) approx.
	MH&95	420	P	Auger-ion-ion coincidence; KERDs; mapping NH_3^{2+} potential surface; simultaneous vs. sequential bond breaking
H_4N_2	HIR89	390-440	E	hydrazine, comp to N_2F_4, NH_3
	H90a	395-425	E,R	absolute, comp. of N_2, NH_3, N_2H_4, Ne; σ* vs. Ryd
	S92	395-435	E,R	comp. of NH_3, N_2H_4, N_2; σ*(N-N)
NO	GSM73	395-425	P	absorption saturation distortion
	MN74	397-412	P	photographic, Z+1 analogy, Rydberg analysis IP (409.9 eV)
	MN&74a	397-410	P	photographic, 0.05A res., Z+1 analogy
	MN&74b	397-410	P	photographic, 0.05A res., Z+1 analogy
	WB74c	395-438	E	cont. res., Z+1 analogy
	KMK79	395-425	T	ab initio calc., comp. to expt. (WBW74c), 2 e- transitions
	TKR80	399-401	E	<70meV FWHM res., vibnl struct.
	AVZ82a	398-400	P	comp. among N_2, NO & O_2, cont. to discrete shape res. shift
	WDD82	410-440	T	absolute cross-section calc., comp. to expt. (WB74c)
	DR83	390-415	E	ion yield appearance pot., 1s->π* thresh. observed
	CF&84a	400	E	GOS, constant for π* in N_2, NO, N_2O, comp. to N_2 calc. (RO79)
	LT&84	414-440	P	cont. res. shape comp. to calc. (WDD82), β-params
	SSH84a	420	T	σ*-res./bond length relationship
	LPL85	400-430	T	MS, quantum defect calc, R-dependence of σ* res.
	RL&85	400-430	P	comp. of multilayer PSID & ISEELS; comp. of CO, N_2, NO, N_2O
	RO85	400	T	π* GOS, quadrupole transition, constant for N_2,NO,N_2O
	CA&87	400	E	Auger-loss coinc.; vibnl-time interference; cf. ETS boomerang model
	CF&87	400	E	GOS, constant for π* in N_2, NO, N_2O, comp. to N_2 calc (RO79)
	SG&89	410-430	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	PV&90	395-422	P	comp. to NO_2^-, NO_3^- (sol); δ(π-σ) correlated with R(NO)
	S90b	398-430	R,P	ionic fragmentation; ion KERD; ion (PIPICO) angular distribution
	MC&91	397-411	P	50 meV fwhm; π* - 2 vibn'l series ($2\Sigma^-$, $2\Delta^-$); Ryd. vib'ns
	SS91	397-423	P	TEY; partial ion yields; KERD at π*; β-param.
	CT92	399	E	DES by (e,2e); U_{CV} >0
	H92a	398-402	E	^{4}π-state found at low impact energy
	KA&92a	395-435	P,T	symmetry resolved ion yield spectra, comp. to calc.
	S92	395-435	E,R,T	comp. of NH_3, N_2H_4, N_2; σ*(N-N); MS-Xα; vibn'l struct.; Ryd.
	ZZ&92	400-410	T	ΔSCF; core hole localisation; gen. rules for MO shifts in 2nd row
	MLH93	401-480	P	luminenscence spectra; rotational dist. of N_2^+ at 401, 419, 480; no variation with E; interchannel coupling is origin of N_2^+ above N 1s IP
	RD&93	396-420	P	74 meV fwhm; vibrational details of 3 π* states; Ryd; full analysis
	DRK94	398-402	P,R	SX700 high res. studies; vibrational structure in small mols.
	EH&96	398-412	P	PIY, TIY; QMS; state selective frag.; KERDs; threshold e- spectra - PCI shape; 160 meV natural linewidth; TPEPIPICO

	FM&96	410-500	E	Auger-ion coincidence; low-lying NO^{++} states identified
	WL98	398-403	T	HF-CI; comp to TKR80
	WP&98	298-402	P	resonant Auger; vibrationally resolved
	WF&00	399-401	P	vibrationally resolved π*; C s filtered; separates 2Δ, $2\Sigma^+$ states
	YH&00	398-402	P	TEY; resolution test of CSRF-SGM
	IOW01	400-410	T	potential energy surfaces for core excitation & doubles
	WF&01	399-401	P	vibrationally resolved π*; CIS filtered; separates 2Δ, $2\Sigma^+$ states
	YOW01	399-401	T	excitation energies and potential curves for π* states
	JW&02	412,420	P, T	fixed-in-space PES; COLTRIMS; circular dichroism at shape resonance, MS , RPAE calc
NO^-	NAV88	395-422	P	comp. to KNO_2, $NaNO_2$ (sol); δ(π-σ) correlated with R(NO)
NO_2	SCC77	400-412	P,T	photographic, Z+1 analogy calc., cont. shape res.
	SSH84a	420	T	σ*-res./bond length relationship - inconsistent
	BS87	380-430	E	high res.
	TL89	395-415	T,E	absolute, MCQD calc., stresses antibonding valence character
	ZS&90	390-455	E,T	absol.; identif. impurities in [SCC77]; MCQD calc.; split σ*(N-O)
	ZZ&92	400-410	T	ΔSCF; core hole localisation; gen. rules for MO shifts in 2nd row
N_2	M38	350-450	P	photographic; **second gas phase XAS**
	NS&69	400-412	P	photographic, 0.03A res., Z+1 analogy
	WSB70	390-420	E	ionic fragmentation (N^+, N^{2+} yields); **FIRST ISEELS SPECTRUM**
	WS72	390-425	E	absolute, ionic fragmentation
	C73	390-420	P,R	review
	WBW73	397-438	E	cont. res., Z+1 analogy
	GSM73	395-425	P	absorption saturation distortion
	CMT73	400-410	P	photographic, pressure dependence, upper bound to linewidth
	MN&74	397-412	P	photographic, Z+1 analogy
	VSZ74	390-425	P	Z+1 analogy, 0.3eV FWHM res.
	VZ&74	398-422	P	cont. res.
	DD75	400-410	T	X-alpha (MSM) calc., cont. shape res.
	R75	400-420	T	Z+1 analogy calc. comp. to expt.(NS&69)
	WS&75	.05-1.0	E	absolute, generalized oscillator strengths, Bethe surface
	DD76a	400-450	T	X-alpha (MSM) calc., cont. shape res.
	DD76b	400-450	T	X-alpha (MSM) calc., cont. shape res.
	DSD76	410-480	T	X-alpha (MSM) calc., shape res. PE ang. dist.
	BBP77	400-410	T	ab initio calc. with CI, comp. to expt. (WBW73)
	KLW77a	100-600	E	absolute, cont. res.
	KMR77	396-405	E	negative-ion K-shell-excited res.
	KM&77	397-430	T	vibnl structure, ab initio calc. comp. to expt. (NS&69, WBW73)
	KRT77	400-403	E	vibnl struct.
	RL77	395-425	T	absolute, comp. to expt. (KLW77a), cont. shape res.
	BP&78	390-450	P	photoelectric yield, absolute, cont. res.
	PB&78	390-450	P	absolute, cont. res.
	R78	400-402	E	vibnl struct., <70meV FWHM res.
	DD79	400-435	T	X-alpha (MSM) calc., cont. shape res.
	KDC79	400-402	T	ab initio calc. of vibnl structure, comp. to expt. (KRT77)
	KMN79	395-425	T	ab initio calc., comp. to expt. (KLW77a)
	RO79	400-402	T	absolute, comp. to expt (KLW77a), generalized oscillator strengths
	B80	390-450	P,R	review, (BP&78 data)
	DS&80	410-435	T	X-alpha (MSM) calc., shape res. Auger electron ang. dist.
	HB80a	380-430	E	vibnl struct., cont. res., comp. to theory (RO79)
	S80a	410-420	T,R	review of res. effects
	TKR80	405-410	E	<70meV FWHM res.
	W80	300-600	E	absolute, cont. shape res., vibnl struct.

	BH81	400-440	E,R	comp. of EELS and photoabsorption by SR
	AA&82	400-425	T	ab initio, multi-e- trans.; comp. to (HB80a), core hole localized
	AVZ82a	398-400	P	comp. among N_2, NO & O_2, cont. to discrete shape res. shift
	BD&82	400-420	E,R	vibnl struct., triplet π*, calibration (v=0, 400.88 eV)
	G82	400-440	R	shape res., related to valence cont. structure
	SK&82	399-402	E	dipole forbidden trans.; $^3\pi$, vibration, 1,3 split=0.82(1) eV
	CF&83	401	E	generalized OS for (1s,π*), quadrupole trans.; f(opt)=.194
	DBH83	398-416	E	vibnl struct. resolved
	DR83	390-415	E	ion yield appearance pot., 1s->π* thresh. observed
(N_2 cont′d)	ES&83b	394-445	P	ion yields, comp to total e^-, ion spectra, DES at 401 eV
	GN&83	400-440	P,T	comp. of core & valence cont. shapes
	HH&83	395-430	P	N^+ yield from solid N_2 surfaces, comp. to gas, e^- yield
	KK83	400-402	T	ab initio (Z+1) basis calc of (1s,π*) energy, comp. to expt (HB80a)
	UT83	360-390	E	decay of triplet (1s,π*) observed in Auger-ELS (e,2e)
	ZMP83	380-550	E	appearance pot.s, π* at 402.0
	AA&84	400-410	T	ab-initio, CI, non-dipole states, cf. AA&82
	CF&84a	400	E	GOS, constant for π* in N_2, NO, N_2O, comp. to theory (RO79)
	HS&84	385-430	E	apparatus paper for Auger-energy loss coincidence
	K84	399-402	E	$^3\pi$; comp. to E($^3\pi$-$^1\pi$) in CO, CO_2, NNO & theory (KM&77)
	LM84	410-430	T	relaxed core, 1-e- calc., σ* res., comp. to expt (KLW77)
	LT&84	400-440	P	norm. at 432eV (BP&78), βs, comp. to (RL77), PE & Auger yield similar
	MRR84a	390-415	E	1s->π* res. in elastic scatt.; singlet 400.96, triplet 398.95 eV
	RRM84	398-404	E	1s->π* res. in elastic scattering
	SB84	401.10(2)	E	calibration standard (π* v=1)
	SSH84a	420	T	σ*-res./bond length relationship
	UT84	410-430	P	conjugate shake-up (core-excitation, val. ioniz.) enhancement
	B85	400-402	E	vibnl struct. of π*(0.055eV FWHM)
	BS85	400-415	T	absolute; pol.-propogator, allowed, forbidden, double excit.
	MR&85	399,401	E	ang. dist. of $^1\pi$ & $^3\pi$ elastic res., l=3 demonstrated
	RL&85	400-430	P	comp. of multilayer PSID & ISEELS; comp. of CO, N_2, NO, N_2O
	RO85	400	T	π* GOS, quadrupole transition, constant for N_2,NO,N_2O
	UT85	401,416	E	autoionzation & Auger decay by (e,2e)
	VA&85	400-440	P,R	comp. of BF_3, N_2, NO_3^-, shape resonances
	YPM85	410-436	T	ab initio, complex basis, coupled channels, comp. to (RL77, LM84)
	SS86b	395-435	P	N^+, N_2^{2+} yields, partial spectra as function of ion kinetic energy
	CF&87	400	E	GOS, constant for π* in N_2, NO, N_2O, comp. to theory (RO79)
	EP&87	401	P	DES, Auger ion-coinc. with white light
	FR&87	420-500	P	shake-up satellite cross-sections; differs from CO
	K87	287-295	T	ab initio, CI, absolute dipole, comp. to expt
	MC&87	390-450	E	absolute OS, test of EELS-->OOS conversion
	PV87	395-430	T	MS-Xa; σ* due to neighbor, π* = atomic!; comp to (ZAV87)
	SS87a	395-435	P	PIPICO, partial ion yields, ion kinetic energies (yields)
	ZAV87	390-460	P	absolute, comp. to theory, 1s-->π* OS - 0.21(2)
	AVZ88	398-480	P	absolute; comp. of NH_3, N_2, Ne re osc. dist of discr/cont.; relates π* to atomic 2p resonance; f(π*)=0.12
	MF&88	400-440	P	ZEKE; XPS-sat & EELS/PA, higher Ryd., 2e & shake-up, PCI
	MLE88	400-402	P	TIY; DES; resolved vibnl struct. (0.2 eV FWHM); eval. of vib=n- interf. on DES (minor); disputes NO result (CA&87); see O_2 (CT88)
	SS88a	395-435	P	PEPICO, partial ion yields, ion kinetic energies (yields)
	SS88b	390-430	P	TEY; FIRST DEMO that ion ang. dist. at π* are anisotropic
	V88	410-450	T	shake-up X-sect.; comp. to surface PE (PRL 51 (83) 821)
	CMS89	398-425	P	high resol. (40 meV fwhm); new Ryd. series; vibns in 2e- excit'n

	H89	380-440	E,R	review of electron-beam core excitation spectroscopies (Aussois)
	PK&89	385-435	P	dispersed-FL detn. (CIS); vibnlly-sensitive; σ* & cont. enhanced
	SG&89	410-430	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	SS89b	390-430	P	ion kinetic E; ion β's; small +ve β value at σ*
	SS89c	390-430	P	partial ion yield; KE dist'n; analysis of dissoc. paths
	SS&89	401	P	N^+ KERD; apparatus (grasshopper mono); π* β (-0.7)
	YM&89	395-435	P	absolute, total ion yield; ion β; N^{2+} KERD
	BS90	410-500	P,R	satellite X-sections; comp. to CO
(N_2 cont'd)	CS90	398-424	P	50 meV fwhm; π*, Ryd. vib'n; 2e-; Z+1 tested
	DQB90	399-403	E	σ-resonance in $^1\pi$ excitation; $^3\pi$-$^1\pi$ branching ratio as f(Eo)
	ED&90	399	P	DES, dynamic screening effects; comp. of N_2, N_2O & azabenzenes
	H90a	395-425	E,R	absolute, comp. of N_2, NH_3, N_2H_4, Ne; σ* vs. Ryd
	HMS90	392-439	P	ZEKE; ZEK-ion coinc.; huge N_2^+ signal rel. to non-ZEKE coinc.
	HS&90	400-402	P	80 meV fwhm; effect of slit width; SSRL-sph. grat. mono descr.
	LK&90	375-475	P	total ion ang. dist.; β-s; comp. to theory (RO85)
	PV&90	395-415	P,T	XANES-MS calc.; comp. to expt [ZAV87]; δ(R) of σ* shape res.
	S90b	398-430	R,P	ionic fragmentation; ion KERDs; ang. dist.
	SU&90c	390-440	P	total ion yield; mol. orient. (N^++N^{2+}); β: (-1 at π*, +1 at σ*)
	BB91	0-1000	E	GOS and sum rules; experimental methods reviewed
	L91	410-430	T	β-param; comp. to expt. [YM&89]; frozen versus relaxed core
	LAL91	400-420	T	CNDO, systematic treatment of σ* energies
	MC&91	406-411	P	50 meV; Ryd. vib'n; comp.to CO; Z+1 breakdown (only intensities)
	SB91b	400-800	E,T	MS-Xα of edge; EXAFS of low-Z; comp. to HB80a
	BB92	41-850	E	generalised osc. str.; $f_{opt}(\pi^*)=0.19$; comp to calc (CF&87, BNH92)
	BNH92	402	T	OOS&GOS - dipole&quad.; $f_{opt}(\pi^*)=0.20$; GOS comp (CF&87,BB92)
	DM&92	400-403	P	high res. (80 meV); 2nd order
	ER&92	401-410	P	DES of π*, Ryd at high res.; interference effects
	K92	390-460	R	survey of numerical XANES
	LD&92	400-440	P	ion yield, N^+ kinetic energy by retarding pot.
	MH&92b	399-422	P	ZEKE-PES; 200 meV fwhm; vibns at threshold; comp. to CO & abs.
	RF&92	400-402	P	40 meV fwhm; instrumentation
	S92	395-435	E,R,T	comp. of NH_3, N_2H_4, N_2; σ*(N-N); high res.; vibn'l struct.; Ryd.
	SU&92a	395-445	P	total ion; symmetry-resolved states from N^+ ang. dist.; comp. to calc (RL77,BS85); challenges CS90 Rydberg assignments
	TWT92	400-403	P	60 meV fwhm; SSRL instrument description
	YM&92	399-403	P	95 meV fwhm
	YS92	398-404	P	photoion. ang. dist. at π*; instrument description
	BIB93	150-650	E	limiting shape of GOS ($f^{(1)}(E)$)
	M93	400-403	P	50 meV fwhm resolution
	ODF93	400-420	T	many body CI; ΔSCF; comp to NiN_2; Ni affects shakeup/relaxation
	RAZ93	400-445	P,T	MS-Feff reproduces σ* resonance
	RN&93	400-402	P,T	30 meV fwhm; vibrationally resolved core state decay; 120 < Γ < 132 meV; 2 step decay model OK; sma0x vibn'l-lifetime interference
	LK&94	405-410	P	ion anisotropy used to symmetry assign Rydbergs; (Z+1) fails!!; Ryd-derived IP = 409.922 eV
	DRK94	398-402	P,R	SX700 high res. studies; vibrational structure in small molecules
	LB&94b	399-433	P	10^4 resolving power (< 40 meV) resolution
	ML&94a	395-425	P	FPICO (fluorescence coinc); parent and fragment exc. states
	NR&94	401-402	P	vibrationally resolved DES; small lifetime-vibrational interference; large potential curve overlap effects; comp. of CO, N_2 and O_2
	S94	802	T	doubly K-excited & K-ionized states predicted; ΔSCF with opt. geom.
	AK&95c	400-402	P	SX700 pgm @ MAX; resolv. power >5000

	CC&95	395-410	P	SGM at SRBC performance test; high resolution
	GV95	400-402	T	photodissooc. calc; comp. to vibrnly-resolved PEY, PSD of multilayer N_2/Pt(111); desorption dominated by ultrafast, directly repulsive N_2^+ states
	MBN95	410	T	core hole localisation is 78%; comp to CO_2 (60); C_2H_4 (86%)
	NB95	400-412	T	coupled cluster ab initio; S-T splittings of Rydberg states
	QO&95	400-411	P	Elettra; high resolution (28 meV fwhm); 50% dip, v=7 visible
	RL&95	407-412	P	photoelectron-X-ray coinc.; peak at IP 0.5 eV BELOW ZEKE (due to PCI shift in ZEKE); PE-Auger coincidence
(N_2 cont'd)	S95	410-445	P	PE ang. dist. at σ*; (PE,ion) coinc; fragment ion ang. dist.; e- β
	SA&95c	395-420	P	fixed-in-space photoelectron angular distributions
	FH&96	398-412	P	high resolution (E/dE~6000); variable line spacing PGM
	GS&96	400-420	P	selectively excited X-ray emission; lifetime-vibrational interference
	K96a	390-425	P	partial ion yields; 60 meV fwhm; QMS
	KK&96a	395-450	P	absolute; high res. (80 meV); angle-res. XPS; part. X-sect.; βs; width=103(10) meV; comp. to calc; vib'nl dep. of σ* (Δ=3eV v=0 to 2)
	KN&96	400-480	P	angle-resolved Auger; anisotropy in some channels
	NK&96a	407-413	P,T	2e- states near IP identified by resonant Auger; ultrafast decay; N_2^{K*} 6 $N+N^{K*}$ 6 $N + N^+ + e$; (Z+1) calc for N^{K*}
	NK&96b	410-560	P	Auger/AI decay; double excited states; ultrafast decay
	NM96	390-430	P,R	review; absorption; partial X-sect. (satellites); symmetry resolved
	RL&96	407-412	P	ZEKE, X-ray emission (FY); (ZEKE, FY) coincidence; eliminates PCI of regular ZEKE; 1-step model; 1 count/hour !!
	SST96	395-435	T	constant chemical potential LDA; π*, σ* res. rel. position; comp. of π-σ sep. in CO, C_2H_2, C_2H_4, N_2, O_2
	STS96	398-420	T	analytical treatment of SR for diatomics (constant chemical potential); bond length determination; N_2 and O_2
	SCT96	420-440	T	core-valence double ionisation; $^1\pi$, $^3\pi$ states; comp. of CO, H_2CO, N_2
	BN97	360-450	T	comparison of N_2 , quark-N_2 (+1/3N-N(-1/3); 1/3 charge shifts ~40 eV
	JA&97	400-403	P	relative; 32 meV; E/ΔE ~ 12500
	KA&97a	403-418	P	comp. of gas-sol; pol. dep.; bulk excitons by e- TOF; N_2, IP=408.9(1)eV
	MS&97d	400-402	P	TIY, 80 meV fwhm; double toroid electron spectrometer
	NG&97	401-408	P	resonant X-ray emission
	SST97	395-440	T	analytical thoery of bond length - resonance correlation
	WZ&97	420	T	corrections to axial recoil for molecular rotation of core ion state
	ZZL97	397-428	T	MS-SCF calc; gs; Z+1; comp. to CMS89
	GTM98	401	P,T	Auger resonant Raman; time domain; detuning effects
	KM&98	400-403	P	line narrowing !; 80% dip between v=0, v=1 & Gaussian; partial Auger yield; 113 meV nominal peak width
	PF&98	419	P,T	ang. dist. PES at σ* resonance; (pf) coherent interfer; comp to CO_2
	S98	395-445	P	symmetry resolved ion yields; fixed-in-space photoelectron ang. dist.
	MM&99b	401	P,T	TIY, disp. Luminescence; vib'n-resolved π*; int. coupling; vibronic
	PK&99a	400-403	P	CIS at π*; vibration resolved; 160 mV total; participator decay
	PK&99b	400-403	P,T	relative; high res; π* AI as f(v); resonant Raman; detuning; vib. interfer.
	CS&00	410-445	P,T	RPA; $\sigma_g \rightarrow \sigma_u$, $\sigma_u \rightarrow \sigma_g$ coupled; fixed-in-space β; comp. SA&95c
	NK&00	404-420	P.T	Auger partial yield (384 eV); 2e in discrete (406,407); PEY removes Ryd., σ*, single ioniz.
	PF&00	400-403	P,T	resonant Auger; vibrational excitation dependent; bond length effects
	PR00	390-440	P,T	relative; molecule, cluster, solid comparison; $(N_2Ar)_n$ mixed clusters; claims shape resonance changes in clusters
	SH&00	400-402	P	TIY, PIY, PIPICO; lifetime-vibration effects; comp. of CO & N_2
	SP&00	398-425	P	SB7 LURE beamline tests; ΔE/E > 8500
	SR&00	400-402	P	TIY; (PES, Auger) coincidence at π*

	YH&00	399-403	P	TEY, resolution test of CSRF-SGM
	AD&01	399-401	E,T	threshold ejected electron spectra of $^1\pi$, $^3\pi$, DW calc.
	I01	410-440	P,T	absolute, fixed-in-space photoelectron ang. dist.; shape resonances
	WJ&01	419	P,T	COLTRIMS detailed ionization analysis; shape resonance dynamics
	FG&02	400-402	P	resonant PES; bond length from interference quenching of v"=1 line
	K02	398-420	P,TR	symmetry resolved, high resolution; review
	MR&02	420	P	fixed-in-space ang. dist.; shape resonance
	SC02	410-450	T	RPAE, absolute; comp to KK&96a; interchannel coupling, vibrations
$(N_2)_n$	R92	390-460	P	PIY,PEPICO, KER; clusters up to n=30; comp. to N_2 molecule
	FP&01	399-412	P	cluster-gas comparison, small shift in π*; Ryd-exciton shift
N_2Ni	DCT98	401	T	partial localized core hole; comp to N_2/Ni(100) NEXAFS; XPS ang. effects
N_2O	GSM73	395-425	P	absorption saturation distortion
	WB74a	395-440	E	cont. res., deviation from Z+1 analogy for terminal N
	GM&75	395-425	P	absorption saturation distortion
	SB76	395-420	T	geometry corrected, Z+1 analogy calc.
	BP&78	390-450	P	photoelectric yield, absolute
	HBW79	401,405	E	ionic fragmentation
	TKR80	400-407	E	<70meV FWHM res.
	B81	395-455	P,R	cont. res., XANES for structure determination
	B82a	401,405	E,R	ionic frag. of discrete autoionizing states, review (HBW79 data)
	DR83	390-415	E	ion yield appearance pot., 1s->π* thresh. observed
	SK&83	390-410	E	dipole forbidden transition
	CF&84a	400	E	GOS, constant for π* in N_2, NO, N_2O, comp. to theory (RO79)
	SSH84a	420	T	σ*-res./bond length relationship - inconsistent with
	RL&85	400-430	P	comp. of multilayer PSID & ISEELS; comp. of CO, N_2, NO, N_2O
	RO85	400	T	π* GOS, quadrupole transition, constant for N_2,NO,N_2O
	MN&86	380-460	P	total & partial ion yields, comp to HBW79
	SKR86	395-408	E	high res (65 meV), triplets observed, E($^3\pi$-$^1\pi$)=0.7,0.9eV)
	CF&87	400	E	GOS, constant for π* in N_2, NO, N_2O, comp. to N_2 calc (RO79)
	HK87	397-407	E	triplet states ($1s_C$=0.98 eV, $1s_T$=0.65 eV)
	PL&87	390-430	T	shape-resonance bond length refutation
	GC&88	400-550	P,T	absolute; partials, βs, N1s (C), N1s(T) comp. to expt (main line 420-450; chemical effects on β at σ* res.
	H89	390-440	E,R	review of electron-beam core excitation spectroscopies (Aussois)
	LE&88	390-400	P,T	DES at (N_T,π*), (N_C,π*); spectator & participator lines
	SG&89	410-430	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	ED&90	399	P	DES, dynamic screening effects; comp. of N_2, N_2O & azabenzenes
	H90a	395-425	E,R	absolute, comp. of N_2, NH_3, N_2H_4, Ne; σ* vs. Ryd
	H90b	398-405	P	ionic frag. at N_T,N_C->π*; comp. to O1s->π*
	HB&90	398-435	P	total ion; ZEKE; MS at N_T,N_C->π* and ZEKE peaks (very different)
	HM&90	400	P	M_{2+} (Auger-selected) multiple ion coinc. (ERAEMKO)
	LLM90	390-450	P	total ion; PIPICO; PEPIPICO; frag. dynamics; 1- vs. 2-step
	LAL91	400-420	T	CNDO, systematic treatment of σ* energies
	MC&91	399-412	P	50 meV fwhm; Ryd. vib'n; intensities unusual
	PBV91	390-430	T	MS; comp.to expt; dev. from δ(R)
	SK&91	412-460	P,T	absolute; N_C, N_T; ab initio calc; shape res. in partials
	SL&91b	423	P	multi-coincidence PEPIPICO; 2-d display; continuum fragmentation
	K92	400-420	R	survey of numerical XANES
	KA&92b	395-440	P	symmetry resolved spectra using ion angular distributions
	ZZ&92	400-410	T	ΔSCF; core hole localisation; gen. rules for MO shifts in 2nd row
	BSS93	396-436	P	PEPICO-, PIY-, PIPICO-yield, β; comp. of β for N_2, NO, N_2O, O_2
	LL&93	390-450	P	PIY,TIY,PEPIPICO at both π*; σ* diss. dynamics

	ML&93	395-425	P	PE2PICO; frag.of N_2O, CO_2, $Fe(CO)_2(NO)_2$
	LH&94	395-445	P	(zeke, Auger) coinc; small threshold signal rel. to 'normal'; chemically sitr selective Auger
	ML&94a	395-425	P	FPICO (fluorescence coinc); parent and fragment exc. states
	ML&94b	401,405	P	(Auger, ion, ion) coinc.; ERAMICO; apparatus design
	AK&95a	398-442	P,T	ab-initio ΔSCF-CI; symmetry resolved ion yields; Renner-Teller; Ryd.-val. mixing; σ* identified; large bending in π*
	FS&95	401,405	P	(Auger, ion, ion) coinc.; ERAMICO; state-selective decay; clever pulsing!!
(N_2O cont'd)	AK&96a	339,405	P	angle-resolved PIPICO; test 3-body decay mech.; axial recoil breakdown
	FS&96	400-450	P	TIY; E-resolved PEPICO; frag. mech.; N_T,N_C exchange prior to dissoc.
	K96b	400-410	T	GSCF3; vibronic coupling
	NM96	390-430	P,R	review; absorption; partial X-sect. (satellites); symmetry resolved
	RJ96	390-440	P	relative; partial anion and cation yields; O^- primary
	SL&96	400-420	P	fragmentation mechanisms
	MS&97d	401	P	resonant Auger; double toroid analyser (E, angle)
	CM&98	401,405	P	Auger,ion coinc.; partial ion yields as f(Auger); mapping. int. states
	MS&98a	401,405	P	Auger,ion coinc.; site selective fragmentation
N_2O_2	PT&95	395-450	P,T	$(NO)_2$; multilayer NEXAFS; DFT calc; low-lying σ*(N-N) consistent with long bond (2.24 Å); 1.5 eV fwhm resol.
$(N_2O)_n$	R92	390-460	P	PIY,PEPICO, KER; clusters up to n=20; comp. to N_2 molecule; asymmetric charge fragmentation

<u>Oxygen 1s</u> (535 eV)

BHO	EH99	525-560	E,T	absolute; transient from H_2S+B+SiO_2; comp of HBO, HBS, $H_3B_3O_3$
	HE&01	525-560	E	absolute; transient ISEELS
$B_3H_3O_3$	EH99	530-560	E,T	absolute; from H_2O+B; comp of HBO, HBS, $H_3B_3O_3$
$B_5C_{19}FeH_{17}O_2P$	HLD91	520-560	E	$Cp(CO)_2FeB_5H_2PBz_2$, phosphaboranes
BrC_5MnO_5	HSW89	525-570	E	$Mn(CO)_5Br$, comp. to $Mn(CO)_{10}$
	HWR90	525-560	E	absolute; comp. of TM carbonyls; f(π*) as f(backbond)
CCl_2O	HUR92	520-560	E,T	phosgene; absolute; comp. to EHT
	RY&92	520-560	E	comp. of small mol. analogs with PET polymer
CCuO	YA&97	534	T	Cu(CO); π* osc. str.; comp. of Cu-CO clusters
$CCu_{17}O$	YA&97	534	T	$Cu_{17}(CO)$; π* osc. str.; comp. of Cu-CO clusters
	PA&96	530-580	T	absolute, STEX; comp. of CO, $Cu_{17}CO$, $Cu_{50}Co$; models of CO/Cu(100)
$CCu_{50}O$	YA&97	534	T	$Cu_{50}(CO)$; π* osc. str.; comp. of Cu-CO clusters
	PA&96	530-580	T	absolute, STEX; comp. of CO, $Cu_{17}CO$, $Cu_{50}Co$; models of CO/Cu(100)
CD_2O	RD&92	528-540	P	high res. isotope effects
CFHO	IH87	525-575	E	HCOF, formyl fluoride, comp. to HCOOH, $HCONH_2$
	RI&88	525-575	E	C-F σ* res., absolute, perfluoro effect
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
	HC96	531	T	DFT; $^3\pi$-$^1\pi$ = 0.34 eV
CF_2O	RI&88	525-575	E	C-F σ* res., absolute, perfluoro effect
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
	HC96	531	T	DFT; $^3\pi$-$^1\pi$ = 0.32 eV
CF_3NO	HIR89	525-575	E	absolute
	PV&93	530-550	T	quasi-atomic calc; short-range order (bond length) correlation
CF_4O	MI&87	525-575	E	absolute OS low-lying σ*(O-F)
CH_2O	HB80b	525-565	E	formaldehyde; cont. res., Z+1 analogy
	SSH84a	540	T	σ*-res./bond length relationship
	RI&88	525-575	E	C-F σ* res., absolute, perfluoro effect
	SBT88	529-537	T	absolute, ab initio, weak Ryd., comp to HB80b

	SG&89	535-550	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	LAL91	530-550	T	CNDO, systematic treatment of σ* energies
	RD&92	528-540	P	high res. isotope effects
	S92	530-570	E,T,R	MS-Xα; comp. of CO, H_2CO, CH_3OH; σ*(C-O)
	NB95	530-542	T	coupled cluster ab initio; S-T splittings of Rydberg states
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
	HC96	531	T	DFT; $^3\pi$-$^1\pi$ = 0.41 eV
	SCT96	550-570	T	core-valence double ionisation; $^1\pi$, $^3\pi$ states; comp. of CO, H_2CO, N_2
(CH_2O cont'd)	YA&96	520-560	T	absolute; STEX; comp. of R_2CO; comp. to expt.
	YA&97	520-560	T	absolute; STEX; comp. of R_2CO; comp. to expt.
	TPA98	525-570	T	absolute; DFT vs. STEX, compares CO and R_2CO, R = H, Me
	TMG01	530-540	T	ADC2; comp. toRD&92
	TM&01b	528-557	T	relative, Green's function methods; vibrations; comp. to expt. (RD&92)
CH_2O_2	IH87	525-575	E	(formic acid), σ*(C-O)
CH_3NO	IH87	525-575	E	$HCONH_2$, formamide, comp. to HCOOH, HCOF
CH_3NO_2	VA&92	280-750	P	absolute; analysed as (CH_3^+, NO_2^-); bond length corr.
	PV&93	530-550	T	quasi-atomic calc; short-range order (bond length) correlation
CH_4N_2O	UH&95b	528-550	E,T	$(NH_2)_2CO$, urea; absolute; EHMO; modelling of polyurethane
CH_4O	WB74b	525-570	E	(CH_3OH - methanol) res. at thresh.
	SSH84a	540	T	σ*-res./bond length relationship
	YKS87	500-950	P	EXAFS; comp. of CO,CO_2,COS,Me_2CO,CH_3OH,EtOEt;furan,$C_8H_8O_2$
	IH88	525-570	E	absolute OS, used to test spectral additivity in methyl formate
	LAL91	530-550	T	CNDO, systematic treatment of σ* energies
	S92	530-570	E,T,R	MS-Xα; comp. of CO, H_2CO, CH_3OH; σ*(C-O)
	HP&99	532-545	P	relative, TIY, PIY, PEPICO yields, site specific frag.; inter-atomic Auger
	SO&02	530-554	P	relative, anion PIY, OH^- only in discrete C1s states
CNiO	OD93	534-550	T	Ni(CO); ab initio SCF-CI; comp. of CO, NiCO; comp. to expt. (CSB89), NEXAFS of CO/Ni (PC&78); intensity ratios predicted; f(π*)=0.13
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
CO	WSB70	520-550	E	comp. to C 1s, 1eV FWHM res.
	NM&71	525-545	P	photographic
	WBW73	527-578	E	cont. res.
	S74	525-545	T	Z+1 analogy, comp. to expt. (NM&71)
	DSD76	530-600	T	X-alpha (MSM) calc., shape res. photoelectron ang. dist.
	GMK77	532-536	T	ab initio calc. of vibnl struct. (1s to π*)
	KM&77	530-540	T	ab initio calc., vibnl struct., comp. to expt. (NM&71, WBW73)
	KMR77	528-537	T	negative-ion K-shell-excited res.
	IKN78	530-570	T	ab initio calc., comp. to expt. (WBW73)
	PC&78	535-575	T	ab initio calc., comp. to expt. (WB74a), cont. shape res.
	BB&79	500-600	P	photographic, absolute, pressure dependence
	DD79	535-585	T	X-alpha (MSM) calc., cont. shape res.
	KMN79	525-545	T	ab initio calc., osc.str.s
	DS&80	530-550	T	X-alpha (MSM) calc., shape res. Auger electron ang. dist.
	HB80a	525-565	E	cont. res., comp. to theory
	BD&82	530-540	E,R	calibration (534.21 eV)
	GN&83	540-560	P,T	comaprison of core & valence cont. shapes
	KK83	532-536	T	ab initio (Z+1)-basis calc. of E(1s,π*) comp. to expt (HB80a)
	TS&83	540-630	P	absolute, cont. cross-sections, β values
	UT83	530-540	E	search for triplet (1s,π*), not seen at Eo=650eV
	ZMP83	520-580	E	appearance pot.s, π* at 536.2
	AA84	530-555	T	ab initio, CI, all one & two-electron transitions, osc.str.
	JH&84	529-539	P	e^- yield, solid/gas/chemisorbed Ni(111), -1.7eV chemisorp. shift, M->C=O

				backbonding, 0.2eV FWHM, vibnl struct.
	SB84	534.21(9)	E	calibration standard (π^*)
	SSH84a	540	T	σ^*-res./bond length relationship
	TL&84	535-690	P	Auger, PES X-sections, βs, absolute
	BS85	530-540	T	polarisation-propogator, allowed, forbidden, double excitations, absolute, comp. to expt.
	CF&85	531-538	T	vibnl struct. calc., comp. to HB80a
	RL&85	520-580	P	comp. of multilayer PSID & ISEELS
(CO cont'd)	UT85	534	E	autoionization & Auger decay by (e,2e)
	YKS85b	500-1000	P	EXAFS, non-standard phase shifts indicated
	HI86	500-900	E	weak EXELFS, comp. to (YKS85b)
	KS&86	534	T	DV-Xalpha, 1s-->π^*, comp. to IPES, NiCO, sensitive to R(Ni-C)
	YKS86	500-950	P	EXAFS, corrected for second order radiation
	FR&87	550-650	P	XPS satellite partial cross-sections
	MC&87	520-580	E	absolute OS, test of EELS-->OOS conversion
	YKS87	500-900	P	EXAFS, comp. to other O-X species
	HL&88	510-610	P	absolute OS, total & partial ion yields, PIPICO, breakdown patterns
	NE&88	550	P	PIPICO, ion kinetic energies at σ^*, comp to val, C1s ionization
	CT89	534	E	DES by (e,2e); CO, CO_2 & COS similar O K-hole decay; atomic?
	SG&89	535-550	T	σ^* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	SY&89	520-570	P	O1s 2nd order, comp to EELS, discrete/cont. lower; cont. flatter
	CSB90	525-580	E	comp. to $Ni(CO)_4$
	DX&90	532-543	P	85 meV fwhm; π^* vib'n (weak but there !!)
	HWR90	525-560	E	absolute; comp. to TM carbonyls; f(π^*) as f(backbond)
	SBM90	540-640	T	RCHF calc, improved agreement with expt. [BB&79]
	FA91	530-540	T	absolute; XAS vs. XRF; comp. to expt. (HB78)
	JJ&91	530-800	T	MS calc; NEXAFS and EXAFS; CO and O_2
	LAL91	530-550	T	CNDO, systematic treatment of σ^* energies
	VBA91	500-900	T	CI effect on EXAFS; HF-SCF; low-Z EXAFS; comp. to (YKS87)
	DM&92	533-543	P	high. res. (140 meV); first π^* vibrational structure; SX-700(II)
	RS&92a	530-560	P	clusters; PIPICO and TIY spectra
	S92	530-570	E,T,R	MS-Xα; comp. of CO, H_2CO, CH_3OH; σ^*(C-O)
	SK&92a	536-560	P	absolute cross-sections and β from PES
	ZZ&92	530-540	T	ΔSCF; core hole localisation; gen. rules for MO shifts in 2nd row
	OD93	534-550	T	ab initio SCF-CI; comp. of CO, NiCO; comp. to expt. (CSB89), NEXAFS of CO/Ni (PC&78); intensity ratios predicted; f(π^*)=0.13
	SH&93	525-555	P,T	symmetry resolved spectra using ion ang. dist.
	BSS94	530-560	P,T	ion-β; -0.8 at π^*, +0.5 at σ^*; comp. to relaxed HF-calc.
	DRK94	533-537	P,R	SX700 high res. studies; vibrational structure in small mols.
	RH&94	540-1500	P,T	ZEKE and satellite partial cross-sections
	S94	823,1159	T	doubly K-excited, K-ionised states
	YND94	538-570	T	absolute; ab initio Z+1; multi-electron; comp. to expt. (HB90a)
	BM&95	530-540	P	HERMON at SRC; performance; 10^5 resolving power
	CC&95	530-540	P	SGM at SRBC performance test; high resolution
	HA&95	543,551,571	P	(e,ion) PEPICO; PE ang. dist.; f-wave char. of σ^* SR only in parallel
	NB95	530-542	T	coupled cluster abi initio; S-T splittings of Rydberg states
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
	HC96	534	T	DFT; $^3\pi$-$^1\pi$ = 0.36 eV
	NM96	520-560	P,R	PIPICO; review of coinc. tech.; cross-sections from HL&88
	PA&96	530-580	T	absolute, STEX; comp. of CO, $Cu_{17}CO$, $Cu_{50}Co$; models of CO/Cu(100)
	SCT96	550-570	T	core-valence double ionisation; $^1\pi$, $^3\pi$ states; comp. of CO, H_2CO, N_2
	YA&96	520-560	T	absolute; STEX; comp. of R_2CO; comp. to expt.

	GA97	530-590	T	absolute; STEX; resonant elastic X-ray scattering; nuclear-electronic coupling depends on detuning
	JA&97	534-544	P	high. res; π* vibrations – 10% ; 2^{nd} order E/ΔE > 10,000
	NG&97	535-535	P,R	resonant X-ray emission (RIXS); ang. dep. at 3s, 3p, Ryd; v-dependent
	PN&97	532-537	P,T	relative; high resolution; vibrationally-resolved AI decay; ab initio calc; vibrational-lifetime interference
	SG&97a	534-545	P,T	resonant X-ray emission; screening shifts; ang. dep.; lifetime-vibrational interference; ab initio RIXS calc'n
(CO cont'd)	SG&97b	534-545	P,T	resonant X-ray emission; self-absorption; lifetime-vibrational interference
	YA&97	520-560	T	absolute; STEX; comp. of R_2CO; comp. to expt.
	ZZL97	534-557	T	MS-SCF; comp. to DV-Xα using Z+1 and g.s. approaches
	GTM98	534	P,T	Auger resonant Raman; time domain; detuning effects
	TPA98	525-570	T	absolute; DFT vs. STEX, compares CO and R_2CO, R = H, Me
	BW&99	534	P	PEPICO; Auger-ion coinc; 2-step (C^+,O^+) at π*; wall coll. & KERD
	PD&99	532-543	P,T	65 meV fwhm; R(π*) = 129.1 pm (8 pm longer); MC calc
	CR&00	540-560	P,T	fixed-in-space ang. dist; theory; double excitation; shape resonance
	IA&00	552	P,T	fixed-in-space; ng. Dist.; complete expt (10 ME, 8 phase); ab intitio RCHF
	MA&00	545-560	P,T	fixed-in-space ang. dist; theory
	PR00	525-565	P,T	relative; molecule solid comparison; only Rydberg changes
	CPA01	530-570	T	STEX with screening; comp. to expt. (HB80)
	I01	556,561	P,T	absolute, fixed-in-space photoelectron ang. dist.; shape resonances
	KS01	540-1000	E	electron impact excited Auger-ion coincidence; comp to CO^{++} PE curves
	HS&02	541-545	P	anion yield at threshold, high-res – vibn'l effects; PCI
COPd	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
COPt	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s → π*; orbital mapping
COS	WB74e	528-550	E	pot. barr. effects
	YKS86	500-950	P	EXAFS, corrected for second order radiation
	YKS87	500-900	P	EXAFS, comp. to other O-X species
	HI88b	500-900	E	EXELFS, comp to YKS87
	NH&88	530-560	R	comp. of all edges, ETS, (WB74e), σ* locations suggested
	CT89	534	E	DES by (e,2e); CO, CO_2 & COS similar O K-hole decay atomic?
	MG&99	530-550	P,T	TIY; STEX; res. emission; atomic lines – ultrafast decay; C1s, O1s, S2p
	MH&89	525-580	E,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	SY&89	520-570	P	O1s 2nd order, comp to EELS, discrete/cont. lower; cont. flatter
	VBA91	500-900	T	CI effect on EXAFS; HF-SCF; comp. to (YKS87); forward foc. MS
	EK&97c	520-540	P	TIY, PIY; PE3PICO; fragmentation mechanisms
	MG&99	530-550	P,T	TIY, STEX, resonant emission; atomic like ultra-fast decay of σ*
	GC&02	545-562	T	fixed-in-space ang. dist.; comp to expt.
CO_2	WB74a	530-575	E	cont. res.
	L75b	525-560	P	absolute, distorted cont. shape
	VA&75	525-560	P	comp. to O_2, C_2H_5OH
	BB&79	504-600	P	photographic, absolute, pressure dependence
	BDW79	.05-2.5	E	generalized osc.str.s, Bethe surface
	PC&81a	535-575	T	ab initio calc., comp. to expt. (WB74e), cont. shape res.
	DDH82	540-575	T	ab initio calc, comp. to expt (BB&79), shake-up
	LM82a	525-565	T	ab initio calc, comp. to expt (WB74a)
	LM82b	540-570	T	ab initio, comp. to expt. (WB74a,BB&79), cont. shape res.
	KK83	530-535	T	ab initio (Z+1) basis calc. of E(1s,π*), comp. to expt (WB74a)
	ZMP83	520-580	E	appearance pot.s, π* at 539.0
	SA&84	520-950	P	absolute, 0.5eV FWHM, compared to WB74a, Z+1 analogy
	SSH84a	540	T	σ*-res./bond length relationship - anomalous
	TL&84	535-690	P	Auger, PES X-sections, βs, absolute
	YKS84	500-1000	P	compare ion-yield, gas scintillation & absorption, EXAFS

	YKS85a	500-1000	P	expt.al app., EXAFS
	YKS85b	500-1000	P	EXAFS, non-standard phase shifts indicated
	HI86	500-900	E	smooth cont., very weak EXELFS (cf YKS85b)
	YKS86	500-950	P	EXAFS, corrected for second order radiation
	HS87	530-560	R	σ^*_g, σ^*_u identified
	MC&87	520-580	E	absolute OS, test of EELS-->OOS conversion
	PL&87	530-560	T	shape resonance – bond length refuted
(CO_2 cont'd)	SAV87	10-1000	P,T	absolute, comp. to X-alpha
	YK87	500-900	P	EXAFS, analysis refined, both O-C & O-O detected
	YKS87	500-900	P	EXAFS, comp. to other O-X species
	HI88b	500-900	E	EXAFS identified, weaker than PA
	NH&88	530-560	R	comp with ETS, COS, CS_2 re σ^* locations
	CT89	535	E	DES by (e,2e); CO, CO_2 & COS similar O K-hole decay atomic?
	LCS89	400-1000	E	EXAFS, q-dependence, comp. to PA; C-O backscatter phase derived
	MH&89	525-580	E,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	SG&89	535-550	T	σ^* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	SY&89	520-570	P	O1s 2nd order, comp to EELS, discrete/cont. lower; cont. flatter
	HW&90	500-1000	E	EXELFS; excellent match to PA [YKS87]
	CT91	535	E	(e,2e) DES; comp. to Auger and theory [Phys. Rev. B 41 (90) 10510]
	FA91	530-540	T	absolute; XAS vs. XRF; comp. to expt. (WB74)
	LAL91	530-550	T	CNDO, systematic treatment of σ^* energies
	VBA91	500-900	T	CI effect on EXAFS; HF-SCF; comp. to (YKS87); forward foc. MS
	S92	530-570	T,R	MS-Xα, comp to W74a; σ^*(C-O)
	SK&92a	536-570	P	absolute cross sections and β's from PES
	MB93	535.4	T	ab initio CI; GOS; OOS = 0.093; comp to EELS (0.12 MC&87) & PA (0.006 SA&84)
	L94	530,540	T	X-ray emission at π^*, σ^*; compared to resonant AI
	BM&95	530-540	P	HERMON at SRC; 1e5 resolving power
	BSS95	530-580	P	total and partial ion yields, βs; PIPICO
	HC&95	532-546	P	TIY, PIY; threshold e, ion,ion coinc.; no site-specific fragment.
	SK&95b	538-600	P	partial PE X-sections; βs (main, satellite); coupling prevents main line X-section from detecting SR; strong conjugate shake-up
	HC&96	550 eV	P	triple coincidence; dissociation mechanisms
	SG&96a	530-570	P,T	absorption, resonant X-ray emission; STEX cacl.; 539 eV peak mostly 4sσ_g
	SG&96b	532-535	P,T	RIXS; dipole forbidden emission with sub-resonant π^* energies (-2 eV detune); vibrinic coupling in SLOW, not-FAST non-resonant processes
	YA&96	520-560	T	absolute; STEX; comp. of R_2CO; comp. to expt.
	CG&97	530-560	P,T	RIXS, symmetry breaking at π^* due to Jahn-Teller; time-dependent and time-independent treatments compared
	NG&97	532-536	P,R	resonant X-ray emission (RIXS); ang. dep. at 3s, 3p, Ryd; v-dependent
	PK&97	532-545	P	relative; 130 meV fwhm; TEY; shoulders seen; 3s Ryd
	PL&87	530-560	T	shape-resonance bond length refutation
	YA&97	520-560	T	absolute; STEX; comp. of R_2CO; π^* OS; initial & final state effects
	GG&98a	530-565	P,T	use of X-ray emission as f(θ) to assign XAS; 541 eV peak is σ(s)
	MK&98b	530-590	P	absolute; Beers' law absorption; vibn'l res. XPS; main, satellite X-sect
	PF&98	559	P,T	ang. dist. PES at σ^* resonance;incoherent (spd) sum
	S98	530-570	P	symmetry-resolved fast ion yield, PE ang dist; scattering path interference at shape resonance
	ET&00	520-580	E,T	methods; GOS at π^*, Ryd; MC-GMS calc ; strong quadrupole GOS
	SU&00	534-538	P	C^+/O^+ yield; 3sσ_g enhanced in O^+; asymmetry; KERD, RT coupling
	TE&01	520-580	E,T	GOS at π^*, Ryd; MC-GMS calc indicate strong quadrupole GOS
	K02	530-560	P,TR	symmetry resolved, high resolution; review

	OS&02	533-570	P	relative, Anion, cation PIY; only O^- at ($C1s^{-1}$,π*); O^- , C^- at O1s edge
$C_2F_3HO_2$	RI&88	525-575	E	CF_3COOH, absolute, comp. to acetic acid, perfluor effect
$C_2F_6O_2$	H86b	525-575	E	CF_3OOCF_3, orbital mapping
	MI&87	525-575	E	low-lying σ*(O-O), absolute
	HM&89	520-630	P	absolute; total, partial IYs; PIPICO, diss. IY; sel. frag.
	H90a	500-580	E,P	comp. of excitation (ISEELS) and ion branching ratios (TOF-PI)
	RH91	525-560	E	absolute; comp. of peroxides and H_2O; low-lying σ*(O-O)
C_2H_4O	HB80b	525-565	E	(CH_3CHO - acetaldehyde) cont. res.
	SSH84a	540	T	σ*-res./bond length relationship
	YA&96	520-560	T	absolute; STEX; comp. of R_2CO; comp. to expt.
	YA&97	520-560	T	absolute; STEX; comp. of R_2CO; π* OS; initial & final state effects
	TJ&99	525-565	P	relative; TIY; participator decay; 2 states in π*
C_2H_4O	SB91a	530-555	E	ethylene oxide
$C_2H_4O_2$	IH88	525-575	E	CH_3COOH (acetic acid); absolute
$C_2H_4O_2$	IH88	525-575	E	$HCOOCH_3$, methyl formate
	JT94b	520-565	P,T	ISEELS as f(resolution); DES by (e,2e); differs from DES of other R-CO
$C_2H_5NO_2$	PC&98	520-560	T	glycine; STEX; comp. of NEXAFS and circ. dichr. of amino acids
	GC&03	520-540	E,T	absolute, comp Gly, Gly-Gly; tri-gly(s); peptide bonds; GSCF3
$C_2H_5N_3O_2$	UA&99	520-560	E	biuret; ($NH_2(CO)NH(CO)NH_2$); absolute
	LCH03	525-565	E,T	comp.of di-carbonyls; charge shifts for fingerprinting, GSCF3
C_2H_6O	WB74b	530-570	E	(CH_3OCH_3 - dimethyl ether) res. at thresh.
	SSH84a	540	T	σ*-res./bond length relationship
	LAL91	530-550	T	CNDO, systematic treatment of σ* energies
C_2H_6O	VA&75	525-560	P	(CH_3CH_2OH - ethanol)
	YKS87	500-900	P	EXAFS, comp. to other O-X species
	SY&89	520-570	P	O1s 2nd order, lower discrete/cont. ratio, cont. flatter
C_2H_6OS	TB&88	525-555	E	$(CH_3)_2S=O$, DMSO, comp. to S1s
$C_2H_6O_2$	HUR92	525-570	E	$(CH_3O)_2CO$ methyl carbonate; comp. to polymer EELS
$C_2H_6O_2$	EUH98	525-565	E	ethylene glycol; (CH_2OH-CH_2OH); absolute; comp to PEO
C_3F_6O	RI&88	525-575	E	(perfluoroacetone), C-F σ* res., absolute, perfluoro effect
$C_3H_2O_2$	IH88	525-575	E	propiolic acid, comp. to solid, absolute, group analysis
$C_3H_3NO_2$	IO&00	525-560	P	absolute; E-selected mass spec; comp to $C_4H_5NO_2$; size dep..frag.
C_3H_4O	IH88	525-575	E	propiolic alcohol, comp. to solid, absolute, group analysis
C_3H_4O	DF&03	520-560	E	CH2=CH-CHO, acrolein; π* delocalisation; ab initio GAMES
$C_3H_4O_2$	IH88	525-575	E	acrylic acid, comp. to solid, absolute, group analysis
$C_3H_6NO_2$	GH01	525-565	E	alanine; absolute; comp of amino acids
$C_3H_6NO_2S$	PC&98	530-560	T	cysteine; (D-,L-) STEX; comp. of NEXAFS, circ. dichr. of amino acids
$C_3H_6N_2O_2$	LCH03	525-565	E,T	malonamide; comp.of di-carbonyls; charge shifts for fingerprinting, GSCF3
C_3H_6O	HB80b	525-565	E	(acetone) cont. res.
	SSH84a	540	T	σ*-res./bond length relationship
	NM&87	500-600	P	total ion yield; TOF-MS; slight selectivity
	YKS87	500-900	P	EXAFS, comp. to other O-X species
	RI&88	525-575	E	ref for C-F σ* res., absolute, perfluoro effect
	SY&89	520-570	P	O1s 2nd order, comp to EELS, discrete/cont. lower; cont. flatter
	YA&97	520-560	T	absolute; STEX; comp. of R_2CO; π* OS; initial & final state effects
	TPA98	525-570	T	absolute; DFT vs. STEX, compares CO and R_2CO, R = H, Me
	TJ&99a	528-565	P,T	absolute; resonant Auger; STEX calc.
	TJ&99b	528-565	P	relative, TIY
	SS00	528-565	P	TIY, PIY; weak site or state selective fragmentation
C_3H_6O	YA&96	520-560	T	ethylaldehyde; absolute; STEX; comp. of R_2CO; comp. to expt.
	YA&97	520-560	T	absolute; STEX; R_2CO comp; π* OS; initial,final state effects
	TJ&99a	520-560	P,T	absolute, resonant Auger, STEX

	TJ&99b	528-565	P	relative, TIY
C_3H_6O	IH88	525-575	E	acrylic alcohol, comp. to solid, absolute, group analysis
$C_3H_6O_2$	IH88	525-575	E	propanoic acid, comp. to solid, absolute, group analysis
$C_3H_6O_3$	HW&91	525-570	E	dimethylcarbonate; absolute
$C_3H_6O_3$	H01	525-565	E	lactic acid; Me(CHOH(COOH); absolute
$C_3H_7NO_2$	UH&95b	525-575	E	NH_2CO_2Et, absolute; modelling of polyurethane PEELS
$C_3H_7NO_2$	PC&98	530-560	T	alanine; (D-,L-); STEX; comp. of NEXAFS, circ. Dichr. of amino acids
$C_3H_7NO_3$	PC&98	530-560	T	serine; (D-,L-); STEX; comp. of NEXAFS, circ. Dichr. of amino acids
C_3H_8O	IH88	525-575	E	n-propanol, absolute, group analysis
	TH&98	532-543	P	threshold e-; TIY; TPEPICO; triple coinc; isomer study
C_3H_8O	TH&98	532-543	P	(isoproponol); threshold e-; TIY; TPEPICO; triple coinc; isomer study
$C_3H_8O_2$	EUH98	525-565	E	1,2-propane diol; absolute; comp to PPO
C_4H_4O	NIH86	525-575	E	(furan)
$C_4H_5NO_2$	IO&99	525-575	P	$MeO(CO)CH_2CN$; absolute; N1s, O1s $\rightarrow \pi^*$ mass spect; site sel. frag.
	IO&00	525-560	P	absolute; E-selected mass spec; comp to $C_3H_3NO_2$; size dep..frag.
$C_4H_6O_3$	LCH03	525-565	E,T	acetic anhydride; di-carbonyls; charge shifts for fingerprinting, GSCF3
$C_4H_6O_5$	LCH03	525-565	E,T	MeO(CO)O(CO)OMe; di-carbonyls; charge shifts, GSCF3
$C_4H_7NO_2$	LCH03	525-565	E,T	Me(CO)N(CO)Me; di-acetamide; di-carbonyls; charge shifts, GSCF3
$C_4H_7O_4$	UA&99	525-565	E	ethyl allophanate ($NH_2(CO)O(CO)OEt$); absolute; polymer model
$C_4H_8N_2O_2$	UH&99	525-565	E,T	ehthyl allophanate; absolute; GSCF3; comp. of urethane species
$C_4H_8N_2O_3$	GC&03	520-540	E,T	absolute, comp Gly, Gly-Gly; tri-gly(s); peptide bonds; GSCF3
C_4H_8O	NIH86	525-575	E	(tetrahydrofuran)
	YKS87	500-900	P	EXAFS, comp. to other O-X species
	SY&89	520-570	P	O1s 2nd order, comp to EELS, discrete/cont. lower; cont. flatter
C_4H_8O	YA&96	520-560	T	propaldehyde; absolute; STEX; comp. of R_2CO; comp. to expt.
	YA&97	520-560	T	absolute; STEX; R_2CO comp; π^* OS; initial,final state effects
$C_4H_8O_2$	YKS87	500-900	P	(dioxane), EXAFS, comp. to other O-X species
	SY&89	520-570	P	O1s 2nd order, comp to EELS, discrete/cont. lower; cont. flatter
$C_4H_9F_3O_3SSi$	UH94a	525-560	E	$Me_3SiOSO_2CF_3$; comp of SI-O-X species re inductive, resonance effects
$C_4H_{10}O$	MI&87	525-575	E	t-butanol, absolute, comp. to t-butyl peroxide
$C_4H_{10}O$	YKS87	500-900	P	($C_2H_5OC_2H_5$, di-ethyl ether), EXAFS, comp. to other O-X species
	SY&89	520-570	P	O1s 2nd order, comp to EELS, discrete/cont. lower; cont. flatter
	UH&95b	528-550	E,T	absolute; EHMO; comp. to polyurethanes
$C_4H_{12}OSi$	UH94a	525-560	E	$Me_3Si(OMe)$; comp of SI-O-X species re inductive, resonance effects
C_4NiO_4	CSB90a	525-580	E	$Ni(CO)_4$; comp. to CO
	HWR90	525-560	E	absolute; comp. of TM carbonyls; f(π^*) as f(backbond)
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
C_5FeO_5	MSN89	500-650	P	total, partial ion yields; comp to CO, $Fe_2(CO)_9$
	HWR90	525-560	E	absolute; comp. of TM carbonyls; f(π^*) as f(backbond)
	WRH92	525-570	E	absolute, comp. of organo-iron complexes, ligand interaction effects
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
C_5HMnO_5	RH89	525-560	E	$HMn(CO)_5$
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
$C_5H_8O_2$	LCH03	525-565	E,T	Me(CO)Me(CO)Me; di-carbonyls; charge shifts, GSCF3
$C_5H_8O_4$	LCH03	525-565	E,T	MeO(CO)Me(CO)OMe; di-carbonyls; charge shifts, GSCF3
C_5H_8O	HI88	525-575	E	(1,3-dihydropyran)
$C_5H_8O_2$	CH98	534	T	malonaldehyde ($CH_3COC=C(OH)CH_3$); DFT;0.2 eV keto-enol π^* shift
$C_5H_8O_2$	CH98	534	T	acetylacetone ($CH_3COCH_2(CO)CH_3$); DFT; 0.2 eV keto-enol π^* shift
	YY&99	510-570	P	TIY, PIY, site slective fragmentation; enhanced Me^+, $MeCO^+$
	LCH03	525-565	E,T	absolute, GSCF3, comp of dicarbonyls
$C_5H_{10}O$	NIH86	525-575	E	(tetrahydropyran)
$C_5H_{10}O$	YA&96	520-560	T	diethylketone; absolute; STEX; comp. of R_2CO; comp. to expt.
	YA&97	520-560	T	absolute; STEX; R_2CO comp; π^* OS; initial,final state effects

$C_5H_{11}NO_2$	PC&98	520-560	T	valine; (D-,L-) STEX; comp. of NEXAFS, circ. Dichr. of amino acids
$C_5H_{14}O$	UHR95	520-560	E	sec-butyl ethyl ether; absolute
$C_5H_{14}OSi$	TC&02	525-565	E	Me3SiOEt; absolute; comp. to vinyl silanes
C_6CrO_6	CSB90	525-575	E	comp. of $M(CO)_6$, M=Cr,Mo,W
	SLD95	534	T	absolute, DF-LCAO; OS for C1s, O1s $\rightarrow \pi^*$; orbital mapping
$C_6H_4O_2$	FH92	520-570	E,T	benzoquinone, absolute, EHMO; quinoid effect
$C_6H_5NO_2$	TUH96	525-565	E	nitrobenzene; absolute; EHMO, comp. to nitroanilines
$C_6H_6N_2O_2$	TUH96	525-565	E,T	(1,2)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
$C_6H_6N_2O_2$	TUH96	525-565	E,T	(1,3)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
$C_6H_6N_2O_2$	TUH96	525-565	E,T	(1,4)-nitroaniline; absolute, EHMO, comp. to aniline, nitrobenzene
C_6H_6O	FH92	520-570	E,T	phenol, absolute, EHMO; quinoid effect
	PY&97	530-560	T	STEX, comp to FH92; substituent effects (X=F,OH, NH_2)
$C_6H_6O_2$	FH92	520-570	E,T	hydroquinone, absolute, EHMO; quinoid effect
C_6H_8O	UHR99	520-570	E	2-cyclohexene-1-one; absolute; conjugation test
$C_6H_8O_2$	FH94	520-570	E,T	1,2-cyclohexanedione, absolute, conjugation of π^*(CO)
$C_6H_8O_2$	FH94	520-570	E,T	1,3-cyclohexanedione, absolute, conjugation of π^*(CO)
$C_6H_8O_2$	FH94	520-570	E,T	1,4-cyclohexanedione, absolute, conjugation of π^*(CO)
$C_6H_9N_3O_3$	UA&99	520-570	E	trimethyl-isocyanurate; absolute; polymer model
$C_6H_{10}O$	FH94	520-570	E,T	(cyclohexanone); absolute; comp. to o,m,p-cyclohaxanedione
$C_6H_{10}O$	UHR99	520-570	E	4-hexene-3-one; absolute; conjugation test
$C_6H_{14}O$	UH&95a	525-575	E	i-Pr-ether; absolute; model for poly-ol of polyurethanes
	UH&95b	525-575	E	absolute; comp. to diethylether
$C_6H_{16}OSi$	UH94a	525-560	E	Et_3SiOH; comp of SI-O-X species re inductive, resonance effects
$C_6H_{18}OSi_2$	UH94a	525-560	E	$Me_3SiOSiMe_3$; comp of SI-O-X species re inductive, resonance effects
$C_6H_{18}O_3Si_3$	UH94a	525-560	E	c-$(SiMe_2O)_3$; comp of SI-O-X species re inductive, resonance effects
C_6MoO_6	CSB90	525-575	E	comp. of $M(CO)_6$, M=Cr,Mo,W
	SLD95	534	T	DF-LCAO; absolute osc. str for C1s, O1s $\rightarrow \pi^*$; orbital mapping
C_6O_6V	TD&92	525-575	P,E	$V(CO)_6$, absolute
C_6O_6W	CSB90	525-575	E	comp. of $M(CO)_6$, M=Cr,Mo,W
$C_7CoH_5O_2$	HWR90	525-560	E	$CoCp(CO)_2$; absolute; comp. of TM carbonyls; f(π^*) as f(backbond)
	RWH91	520-700	E	absolute; comp. to other mixed-Cp, CO species
$C_7FeH_6O_3$	WRH92	525-570	E	$RFe(CO)_3$, R=butadiene; absol; organo-irons; ligand interactions
C_7H_6O	HUR92	525-570	E	benzaldehyde; comp. to polymer EELS
	RY&92	520-560	E	comp. of small mol. analogs with PET polymer
$C_7H_7NO_2$	UH&95b	525-575	E	NH_2CO_2Ph, absolute; modelling of polyurethane PEELS
C_7H_8O	HU97	530-560	E	anisole (Ph-OMe); absolute
$C_7H_8N_2O$	UH&95a	525-560	E	phenylurea; absolute; comp. to PEELS of polyurethane models
	UH&95b	525-560	E	absolute; urea and urethanes differ at O 1s
$C_7H_{12}O_2$	LUH97	525-560	E	butyl acrylate; absolute; polymer model
$C_7H_{14}O$	YA&96	520-560	T	dipropylketone; absolute; STEX; comp. of R_2CO; comp. to expt.
	YA&97	520-560	T	absolute; STEX; R_2CO comp; π^* OS; initial,final state
$C_8Cl_2H_4O_2$	HUR92	525-570	E	terphthalyl chloride; comp. to polymer EELS
	RY&92	520-560	E	comp. of small mol. analogs with PET polymer
$C_8Co_2O_8$	HWR90	525-560	E	$Co_2(CO)_8$; absolute; comp. of TM carbonyls; f(π^*) as f(backbond)
	RWH91	520-700	E	absolute; comp. to mixed-Cp, CO species
$C_8F_3H_4NO$	IO&99	520-565	P	p-$CF_3C_6H_4NCO$; TIY; N1s, O1s $\rightarrow\pi^*$ frag.; no site selectivity
$C_8H_6O_2$	HUR92	525-570	E	terphthaldeyde; comp. to polymer EELS
	RY&92	520-560	E	comp. of small mol. analogs with PET polymer
C_8H_9NO	UH&95a	520-560	E	benzyl carbamate; absolute; comp to PEELS of model polyurethanes
	UH&95b	520-560	E	absolute; O 1s useful to distinguish urea/urethane
$C_8H_9NO_2$	GH01	520-560	E	phenylalanine, comp. of amino acids
$C_8H_{12}O_3Si$	TC&02	520-560	E	$(CH_2=CH)Si(OAc)_3$; absolute; vinyl silanes
$C_8H_{18}O_3Si$	TC&02	280-320	E	$(CH_2=CH)Si(OEt)_3$; absolute

$C_8H_{16}O$	UHR92	525-575	E	sec-But-ether, absolute; modelling of polyurethane PEELS
$C_8H_{18}O_2$	MI&87	525-575	E	t-Bu-O-O-t-Bu, absolute, low lying σ*(O-O)
	RH91	525-560	E	absolute; comp. of peroxides and H_2O; low-lying σ*(O-O)
$C_8H_{24}O_4Si_4$	UH94a	525-560	E	c-$(SiMe_2O)_4$; comp of SI-O-X species re inductive, resonance effects
$C_9CrH_6O_3$	W92	520-560	E	$BzCr(CO)_3$, absolute
	WHR92	520-560	E	$BzCr(CO)_3$, absolute
$C_9FeH_8O_3$	WRH92	520-560	E	$CxFe(CO)_3$; comp. of $Fe(CO)_5$, $RFe(CO)_3$, $Fe(Cp)_2$; mix. lig. effect
$C_9Fe_2O_9$	MSN89	500-650	P	total, partial ion yields; comp to CO, $Fe(CO)_5$
	WRH92	520-560	E	$CxFe(CO)_3$; comp. of $Fe(CO)_5$, $RFe(CO)_3$, $Fe(Cp)_2$; mix. lig. effect
$C_9H_5O_4V$	WHR92	525-550	E	cyclopentadienyl vanadium tetracarbonyl
$C_9H_6N_2O_2$	UHR99	520-560	E,T	2,4-TDI, absolute; isomeric effect
$C_9H_6N_2O_2$	UHR99	520-560	E,T	2,6-TDI, absolute; isomeric effect
$C_9H_7MnO_3$	W92	520-560	E	$Me\text{-}CpMn(CO)_3$, absolute
$C_9H_8O_2$	LUH97	520-560	E	vinyl benzoate; absolute; model for PET X-ray damage
$C_9H_{10}O_2$	HUR92	525-570	E	Ethylbenzoate; comp. to polymer EELS
	H92b	520-565	E,R	comp. to polymer EELS
	RY&92	520-560	E	comp. of small mol. analogs with PET polymer
$C_9H_{11}NO_2$	UH&95b	525-575	E	$Ph\text{-}NHCO_2Et$, absolute; modelling of polyurethane PEELS
$C_{10}ClCo_3O_9$	HM&93	525-560	E,P	$Cl\text{-}C\text{-}[Co(CO)_3]_3$, abs.; gas(E,P-ions), sol(P); PIPICO, TOF-MS
$C_{10}CrH_8O_3$	W92	520-560	E	$CH_3\text{-}BzCr(CO)_3$, absolute
	WHR92	520-560	E	absolute
$C_{10}H_{10}O_4$	UH&96	525-545	E,T	p-dimethylphthalate ($MeO_2C\text{-}C_6H_4\text{-}CO_2Me$); ab initio; isomer effects; comp. to polymer
	RH&97	525-555	E,P,T	absolute; comp. to solid; NEXAFS, PEELS, STXM of PET; radiation damage quantified
	UT&97	525-555	E,T	absolute; ab initio; comp. to oligimer NEXAFS
$C_{10}H_{10}O_4$	UH&96	525-545	E,T	o-dimethylphthalate ($MeO_2C\text{-}C_6H_4\text{-}CO_2Me$); ab initio; isomer effects in o-, m-, p-phthalates; comp. to polymer
	UT&97	525-555	E,T	absolute; ab initio; comp. to oligimer NEXAFS
$C_{10}H_{10}O_4$	UH&96	525-545	E,T	m-dimethylphthalate ($MeO_2C\text{-}C_6H_4\text{-}CO_2Me$); ab initio; isomer effects in o, m-, p-phthalates; comp. to polymer
	UT&97	525-555	E,T	absolute; ab initio; comp. to oligimer NEXAFS
$C_{10}H_{13}NO_2$	UH&95b	525-575	E	$Ph\text{-}N(CH_3)\text{-}CO_2Et$, absolute; modelling of polyurethane PEELS
$C_{10}H_{19}O_4$	LCH03	525-565	E,T	$^tBuO(CO)NH(CO)O^tBu$; di-carbonyls; charge shifts, GSCF3
$C_{10}Mn_2O_{10}$	HSW89	525-570	E	$Mn_2(CO)_{10}$, absolute, comp to CO, $Mn(CO)_5Br$
$C_{11}Co_3H_3O_{10}$	HM&93	525-560	E,P	$CH_3O\text{-}C\text{-}[Co(CO)_3]_3$, abs.; gas(E), sol(P)
$C_{11}FeH_8O_3$	WRH92	525-570	E	$RFe(CO)_3$, R=COT; absolute, organo-irons; ligand interactions
$C_{11}H_{14}N_2O_4$	UHR99	525-570	E	TDI-bis-methyl urethane; absolute
$C_{12}H_{10}O_3$	HUR92	525-570	E	$(BzO)_2CO$ phenyl carbonate; comp. to polymer EELS
$C_{12}H_{15}N_2O_2Re$	HS92	520-560	E	$Cp*Re(CO)_2N_2$, absolute
$C_{12}O_{12}Ru_3$	SF&90	520-560	P	relative, TEY; comp. to free CO; relaxation d(R) effects
$C_{13}H_{12}N_2O$	UH&95b	525-575	E	$Ph\text{-}NH)_2C{=}O$; absolute; modelling of polyurethane PEELS
$C_{13}H_{15}MnO_3$	WRH89	520-570	E	$Cp*Mn(CO)_3$; absolute
$C_{14}H_{10}O_3$	LUH97	520-560	E	benzoic anhydride; absolute; polymer model
$C_{15}H_{24}O$	LUH97	520-560	E	butylated hydroxy toluene; absolute; polymer model
$C_{18}H_{16}OSi$	UT&97	520-560	E	triphenylsilanol; absolute; Si-Si, Si-O-R systems
$C_{21}H_{15}N_3O_3$	UHR92	520-560	E	$(Bz\text{-}O)C_3N_3$, triphenoxy-triazine; polyurethane modelling
	UA&99	520-560	E	tritolylisocyanurate; absolute, polymer model
$C_{24}H_{21}N_3O_3$	UA&99	520-560	E	tritolylisocyanurate; absolute, polymer model
Cl_3OP	SB85d	525-600	E	pot. barr. effects
DO	SRA02	525-528	P	high res.; comp. of vib'n &Ryd of OH,OD; v. low E (526eV)
D_2O	RR&83	525-575	P	D^+ yields from sol; gas, solid, EY comp; extra peak at 560eV
	KP94b	530-540	T	ab initio DSCF-CI; vibrational analysis; comp. of H_2O/D_2O

F_2O	MI&87	530-570	E	absolute; comp. to H_2O; conj. val.- Ryd. obsv'd; strong σ*(O-O)
F_3OP	SB85d	525-600	E	pot. barr. Effects
HO	SRA02	525-528	P	high res.; comp. of vib'n &Ryd of OH,OD; v. low E (526eV)
H_2O	WB74b	530-575	E	weak cont. features
	WB74g	530-540	E	Z+1 analogy (H_2F radical)
	WB74h	530-545	E	Z+1 analogy
	ASW75	530-545	T	ab initio calc., comp. to expt. (WB74b)
	S75b	530-545	T	Z+1 analogy calc., comp. to expt. (WB74b)
	DC76	530-540	T	ab initio calc.
	WFM77	530-550	E	alternate assignment of WB74c
	A80	530-550	P	relative, see SYD82
	DK&82	530-580	T	ab initio calc., comp. to expt (WB74b)
	AVZ82b	532-540	P	comp. to NH_3,CH_4,Ne, 3p splitting=0.8eV
	SYD82	530-550	P	ab initio, absolute, comp. to expt (A80)
	R83	530-580	T	gas(WB74b), solid, chemisorbed spectra & diss. IY comp.
	RL&83	500-800	P	(D_2O, H_2O) (s), comp. to gas (WB74b), O Auger yield,, residual Rydbergs, EXAFS, O^+ yield follows O_K-cont.
	SSH84a	540	T	σ*-res./bond length relationship
	CH&85	530-540	T	Rydberg assignments comp. to 2nd & 3rd row hydrides
	MI&87	530-570	E	absolute OS, comp. to F_2O, valence-Rydberg mixing
	CAC89	500-550	T	vibronic effects in decay; Auger, PE, fluorescence comp.; vib'n-core lifetime coupling critical
	MD89	540-590	T	absolute, partial PI; ab initio; comp. to expt [MI&87]
	CP&90	500-1000	P	ion desorption (Ru(001); comp. to gas; coupled decay-dissoc. in H^+
	MR&90	520-570	P	ion desorption (H^+); comp. to AEY, gas EELS (WB74b)
	RC&90	520-570	P	comp. of gas, solid; ion yields, H^+ ultrafast diss.
	LAL91	530-550	T	CNDO, systematic treatment of σ* energies
	RH91	525-560	E	absolute; comp. of peroxides and H_2O; low-lying σ*(O-O)
	KL&92	530-544	P	ion yield, symmetry resolved b values
	KNP92	530-540	T	SCF-CI in (Z+1) approx.
	S92	525-565	E,R	σ*(O-H), comp. of X-H species
	SS92c	529-540	T	relaxed core HF; comp. to DSCF; TV, f computed; comp. to RF&93
	ZZ&92	530-540	T	DSCF; core hole localisation; gen. rules for MO shifts in 2nd row
	IS&93	510-610	P	partial ion yields (H^+, OH^+, O^+, O^{++}); comp. to PSID of 10 L H_2O/Si(100)
	M93	532-542	P	partial ion yields (H^+, OH^+, O^+, O^{++})
	ST&93	533-540	P,T	(120 mV); ab initio SCF(ADC); no resolved vib; comp of H_2O, NH_3, CH_4 re Ryd/val char.NH_4; ultrafast dissoc.; abs. osc. str. calc.
	KP94b	530-540	T	ab initio DSCF-CI; vibn=l analysis; comp. of H_2O/D_2O; comp. (ST&93)
	LB&94b	532-542	P	partial IY; test of new PGM on HASYLAB undulator
	SI&95	520-620	P	PIY(O^+, O^{2+}, O^{3+}); comp. to PSID for H_2O/Si(100); no ultrafast H^+; first PIPICO at a surface (O^+,H^+)
	HP&98	532-534	P	reosnant Auger coinc. with OH^+, H_2O^+, ultrafast decay
	PH&99	531-542	P	TIY, PIY, PE3PICO; H^{2+} from $2b_2$; H^o at $4a_1$; ultrafast; 170 meV
	PK&99c	532-540	P	reosnant Auger; non-linear dispersion; potential curves; no ultrafast
	RB99	530-534	T	absolute; GOS; $4a_1$ GOS shows structure
	WR&01	530-550	P	TIY, TEY; comp of liq, gas, sol; surface / bulk on droplets; EXAFS
	HN02	531-541	P,R	PIY, H_2^+ formation at $2b_2$; (from PH&99)
$(H_2O)_n$	BF&99	532-542	P	spectra as function of <cluster size>; 20 up to 200; PIY spectra
	TM&01a	532-539	P	XAS, XPS of expanded liquid (clusters) and Ar-seeded (more condensed)
H_2O_2	RH91	525-560	E	absolute; comp. of peroxides and H_2O; low-lying σ*(O-O)
	TV93	530-540	T	ab initio-SCF-EICVOM; pre-edge res. (π*, $\sigma^*_{O\text{-}O}$,$\sigma^*_{S\text{-}S}$); comp. RH91
NO	WB74c	525-568	E	cont. res.

	KMK79	525-545	T	ab initio calc., comp. to expt. (WB74c), cont. shape res.
	AVZ82a	525-535	P	comp. among N_2, NO & O_2, cont. to discrete shape res. shift
	WDD82	545-570	T	absolute cross-section calc., comp. to expt. (WB74c)
(NO cont'd)	SSH84a	540	T	σ∗-res./bond length relationship
	RL&85	520-560	P	comp. of multilayer PSID & ISEELS
	NAV88	528-552	P	comp. to KNO_2, $NaNO_2$ (sol); dp-s correlated with R(NO)
	SG&89	535-550	T	σ∗ shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	PV&90	535-555	P	comp. to NO_3^-, NO_2^-, d(p-s) as f(R); MO splitting
	S90b	525-560	R,P	ionic fragmentation; KERD; ang. dist.
	ZS&90	520-580	E,T	absolute, ident. impurities in [SCC77]; MCQD calc.; split σ∗(N-O)
	SS91	526-556	P	TEY; partial ion yields; KER at π∗; ion b-param
	CT92	532	E	DES by (e,2e); U_{C-V} at N>0
	KA&92a	525-565	P,T	symmetry-resolved ion yield; comp. to ab initio; (Z+1) breakdown
	ZZ&92	530-540	T	DSCF; gen. rules for MO shifts in 2nd row
	PV&93	530-550	T	quasi-atomic calc; short-range order (bond length) correlation
	RD&93	530-544	P	120 meV fwhm; vibrational details of 3 π∗ states; Ryd; full analysis
	L94	530,540	T	X-ray emission at π∗, σ∗; compared to resonant AI
	AK&95a	530-560	P,T	ab-initio DSCF-CI; symmetry resolved ion yields; Renner-Teller; Ryd.-val. mixing; σ∗ identified; large bending in π∗
	WL98	528-536	T	HF-CI; comp to TKR8
	WP&98	530-537	P	resonant Auger; vibrationally resolved
	PD&99	531-544	P,T	resonant Auger, vibrationally resolved
	IOW01	530-540	T	potential energy surfaces for core excitation & doubles
	YOW01	533-535	T	excitation energies and potential curves for π* states
NO_2	SCC77	530-541	P,T	photographic, Z+1 analogy calc.
	SSH84a	540	T	σ∗-res./bond length relationship, anomalous
	BS87	530-570	E	high res.
	JC02	525-555	P,T	relative, Gaussian94 calc (Z+1)
N_2O	WB74a	530-575	E	weak cont. features
	SB76a	530-545	T	geometry corrected, Z+1 analogy calc., comp. to expt. (WB74a)
	BB&79	504-600	P	photographic, absolute, pressure dependence
	SSH84a	540	T	σ∗-res./bond length relationship - inconsistent with
	MN&86	520-600	P	total ion yield, branching ratios at selected E
	PL&87	550-560	T	shape resonance – bond length refuted
	GC&88	532-600	P,T	absolute photoionisation cross-section, b
	LE&88	540	P.T	DES; spectator versus participator decay
	ME88	500-700	P	Auger-ion coincidence; state-selective frag.; undulator rad.
	SG&89	535-550	T	σ∗ shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	H90b	535	P	ionic frag. comp to N_T,N_C->π∗
	PBV91	520-560	T	MS; comp.to expt; dev. from d(R)
	SK&91	540-600	P,T	absolute; comp to N_C, N_T; ab initio; O 1s like N_C; E(σ∗) const. in partials
	K92	530-550	R	survey of numerical XANES
	KA&92b	520-570	P	symmetry resolved using ion angular distribution.
	ZZ&92	530-540	T	DSCF; core hole localisation; gen. rules for MO shifts in 2nd row
	BSS93a	526-576	P	PEPICO-, PIY-, PIPICO-yield, b; comp. of b for N_2, NO, N_2O, O_2
	PV&93	530-550	T	quasi-atomic calc; short-range order (bond length) correlation
	L94	530,540	T	X-ray emission at π∗, σ∗; comp. to resonant AI
	AK&95a	530-570	P,T	ab-initio DSCF-CI; symmetry resolved ion yields; Renner-Teller; Ryd.-val. mixing; σ∗ identified; large bending in π∗
	K96b	530-543	P,R	symmetry resolved (energetic ion axial recoil); comp. to CO_2, CH_4 where excited state geom. does affect angle-resolved signal
	NM96	540-600	P,R	partial cross-sect.; comp. to calc

	PL&87	530-560	T	shape-resonance bond length refutation
N_2O_2	PT&95	525-570	P,T	$(NO)_2$; multilayer NEXAFS; DFT calc; low-lying σ*(N-N) consistent with long bond (2.24 Å); 1.5 eV fwhm resol.
O_2	NM&71	530-550	P	photographic
	BS&74	525-575	P	photographic
	VZ&74	525-560	P	distorted intensities
	WB74c	522-565	E	Z+1 analogy, res. at thresh.
	L75b	525-560	P	res. at thresh.
	VA&75	525-560	P	comp. to CO_2, C_2H_5OH
	B76	525-540	P	pre-edge, absolute
	BB&79	504-600	P	photographic, absolute, pressure dependence
	KMK79	530-550	T	ab initio calc., comp. to expt. (WB74c)
	GA&80	520-600	T	ab initio calc., absolute, cont. shape
	HB80a	522-562	E	res. at thresh., comp. to theory
	AVZ82a	525-535	P	comp. among N_2, NO & O_2, cont. to discrete shape res. shift
	BB84	526-534	P	abs. by mono. crystal (KAP) distorts O1s spectra (L75b, BB&79)
	RL&85	520-580	P	comp. of multilayer PSID & ISEELS
	SSH84a	540	T	σ*-res./bond length relationship
	YKS85b	500-1000	P	EXAFS, non-standard phase shifts indicated
	THY86	546	P	luminescence from O_2^{2+} (K*)
	YKS86	500-950	P	EXAFS, corrected for second order radiation
	YKS87	500-550	P	EXAFS; comp. of CO,CO_2,COS,Me_2CO,CH_3OH,EtOEt;furan,$C_8H_8O_2$
	CT88	531	E,T	Auger-loss coinc., DES, strong t-vibn interference, comp to calc.
	YHT88	500-700	P	luminescensce ion, abs, comp., selective decay
	SG&89	535-550	T	σ* shape res.; pos. & shape as f(R); approx. cyl. well & ab initio
	SS89a	520-560	P	electron yield; O^+,O^{2+} yields; ion b's (π*= -1; 3p Ryd = 1.2)
	SS89d	520-560	P	partial IY; ion KERDs; diss. pathways; π* partly non-dissoc.
	CT90	531	E	DES; (e,2e); comp. to Auger and calc; participator decay strong
	H90b	500-700	P,R	comp. of abs. luminescence and TIY; fluorescence decay
	LK&90	510-600	P	total ion ang. distr.; b-params
	LL&90a	531,560	P	AI and Auger spectra at π*, σ*, cont.
	LL&90b	490-590	P	total ion yield; DES at π*, σ* and continuum (AI and Auger)
	S90b	525-570	R,P	ionic frag; KERD; ang. dist.
	SS90	531	P	KERD in (O^+,O^+); PIPICO
	SU&90c	520-560	P	total ion yield; mol. orientation param. (-0.8 at π*; 1 at both σ*)
	JJ&91	530-800	T	MS calc; NEXAFS and EXAFS; CO and O_2
	MC&91	525-560	P	50 meV; Ryd. structure resolved on "exchange split" σ*
	SB91b	500-950	P,T	MS-Xa calc of EXAFS and edge; comp to YKS87
	SS&91	520-560	P	total ion yield and molecular orient. parameters (peaks B, C are s)
	TC91	531	E,T	DES; lifetime-vibrational interference; hole state lifetime deduced
	DM&92	530-545	P	high resolution (120 meV)
	HL&92	531	P	(e^-_{Auger},ion) coinc.; multi-det; intermediate state ident.
	K92	530-550	R	survey of numerical XANES
	KA&92b	531	P	ion ang. dist. at π*; claims external axial recoil approx is not valid in polyatomics
	KSY92	525-565	P,T	comp. of TEY, TIY (po. dep.); high res. 84 meV; ab initio; DSCF of Ryd.; only weak Ryd-val mixing
	MH&92	520-3000	E	luminescence from O^+, $O^\cdot$ attributed to decay of O_2^{K+}
	RE&92	526-570	P	high res (<100meV); detailed Ryd. struct. in 538-543 eV
	RF&92	528-570	P	comp. to MC&91; improved Ryd. resolution; instr. description
	S92	525-900	EPTR	MS-Xa, EXAFS, comp. to surf. ads. O_2 on Pt, Ag
	YS92	525-565	P	sym. resolved by ion yield; BOTH features are σ*; high res (84 meV)
	HF&93	520-560	E,T	absolute; comp. of ^1D-^3S; DSCF-CI calc; magnetic splitting in ^3D

	NR&93	530-545	P	autoionization (DES) used as selective detector of σ*; exchange split only 0.6 eV (both σ* in B)
(O_2 cont'd)	RAZ93	540-1000	P,T	comp. of MS-Feff with expt.; reproduces σ* & EXAFS if >13 legs
	SC&93	520-560	P	Auger, autoionization at π* (530.9); 540 (σ*), 542 (σ*), 552 ($1s^{-1}$); atomic O^K decay detected (ultrafast decay)
	NR&94	529-532	P,T	DES at π*; lifetime-vib'n interference strong in partials; comp. to CO, N_2
	YND94	538-570	T	absolute; ab initio Z+1; multi-excitation; comp to (BB&79); strong ($1s^{-1}$,p^{-1},p^4) 2e- state at 539 eV in σ* region
	YSK94	535-550	P,T	ultrahigh res.; ion-b and state symmetries; DSCF pot. curves; Ryd-val mix and exchange split σ*(O-O)
	AK&95a	535-550	P,T	ab-initio DSCF-CI; symmetry resolved ion yields; Renner-Teller; Ryd.-val. mixing; σ* identified; large bending in π*
	BM&95	530-540	P	HERMON at SRC; 1e5 resolving power
	CC&95	530-540	P	SGM at SRBC performance test; high resolution
	MBN95	550	T	calc of core hole localisation; N_2O (78%), CO_2 (60), C_2H_4 (86%)
	QO&95	538-544	P	Elettra; high resolution
	RL&95	540-546	P	(ZEKE-X-ray) coinc; peak 0.45 eV below ZEKE peak; no PCI in coinc.
	AL&96	529-545	T	STEX; ^2S channel only one with exchange split of σ*; ^4S channel dominated by Rydberg; supports Kuiper & Dunlap assignments
	GC&96	532-547	P	resonant X-ray em. (RIXS); no sym. breaking; supports 539 eV peak (B) as comprising BOTH σ* states
	L96b	529-531	P,R	participator Auger through π* (from NR&94); vibrational - lifetime interference
	NM96	529-533	P,R	review, lifetime-vibrational intereference; line-shape simulation (NR&94)
	SST96	530-560	T	constant chemical potential LDA; π*, σ* res. rel. position; comp. of p-s sep. in CO, C_2H_2, C_2H_4, N_2, O_2
	STS96	528-560	T	analytical resonance shapes for diatomics; bond length determination
	NG&97	531	P,R	resonant X-ray emission (RIXS)
	GM98	531	T	Auger resonant Raman; time dependent picture; classical; detuning; comp to N_2, CO (GTM98)
	KK&98a	528-548	P	relative; high res.; symmetry det'n; unresolved vib'ns affect π*
	SA&98c	529-532	P	resonant Auger,ultrafast; 140 meV
	BB&00	539	P,T	atomic Auger = ultrafast decay at σ*; pol. dep. Auger; Doppler shift associated with localized core hole; measurement-dependent localization ('disentanglement of entangled states')
	AC&01	525-550	P	relative; XAS and XPS; metastable $a^1\Delta$ spectrum; π*, not shape resonance
	SF&01	530-533	P	high res; vibrations; DES
	SO&01	535.4	P	sub-natural linewidths by resonant Auger
	K02	530-560	P,TR	symmetry resolved, high resolution; review
	PK&02	535-547	P,T	CIS; ($1\pi_g$) and ($1\pi_u$) participator decay plots; σ* , $^4\Sigma$, $^2\Sigma$ complex; CIPSI
$(O_2)_n$	RS&92b	520-560	P	PIY, TIY, TEY of cluster versus molecular O_2
O_2S	AVZ82c	525-555	P	comp. to S2p (VZ71b) & S1s (MB&72) spectra of SO_2
	TKM82	525-540	T	X-alpha (MSM), comp. to expt (K77)
	B85	525-545	E	high res. (0.09eV FWHM)
	SB&87	525-545	E	high res., comp. to MCQD calc & other edges
	PK&93	500-900	P	EXAFS; comp to SO_2 (multi & monolayer) on Cu; 1st intramolecular bond length from SEXAFS
	FT&99	527-547	P	TIY, TPES; TPEPICO; TPE2PICO; relative cross sections
	JC02	525-555	P,T	relative, Gaussian94 calc (Z+1)
O_3	PC&81b	520-600	T	ab initio calc., absolute osc.str.s, discrete shape res.
	ZZ&92	530-540	T	DSCF; core hole localisation; gen. rules for MO shifts in 2nd row
	GOI97	525-555	P,T	relative; discharge O_2; spectral stripped; 2π* @ 529.1,535.4 eV; GSCF3

Palladium 2p (31.7, 33.3 keV)

$C_6H_{10}Pd$	DFL92	3.16-3.17	T	$Pd(C_3H_5)_2$; absolute; ab inito-SCF-CI; comp. of 3d spectra of 5 TM compounds; supports MO model of edge structure

Phosphorous 2p (140 eV)

$B_5C_{12}H_{18}P$	HLD91	130-220	E	$Ph_2PB_5H_8$
$B_5C_{19}FeH_{17}O_2P$	HLD91	130-220	E	$Cp(CO)_2FeB_5H_2P(Ph)_2$
Br_3P	II&87	130-270	P	PBr_3; absolute, high res. (0.03-0.07 eV)
CCl_2F_3P	HBC96	130-170	P	CF_3PCl_2, absolute; ab initio; TIY,PIY,PIPICO; comp. to PF_3,PCl_3
	NJ&98	120-170	P,T	absolute; GSCF3 calc.; LS-state; comp of PX_3, YPF_3. X=Cl,F, Y=O,S)
	NH&03	130-200	P	absolute; TIY, PIY, quantitative fragmentation; comp to (e, e+ion)
C_3H_9P	SB85c	130-210	E	$P(CH_3)_3$; strong cont. res.
	LC&90	125-210	P,T	high res.; MS-Xa; Ryd.; pot. barr. shape res.; PX_3 (X=H,F,CH_3)
	HH&98	128-150	E	absolute; comp. of $(t\text{-}Bu)_2PCl$, PCl_3, PMe_3
$C_8ClH_{18}P$	HH&98	128-150	E	$(t\text{-}Bu)_2Cl$; absolute; comp. of $(t\text{-}Bu)_2PCl$, PCl_3, PMe_3
Cl_3OP	GM&76	123-136	P	Rydberg structure, no analysis
	TKM82	133-144	T	X-alpha (MSM), comp. to expt (GM&76)
	SB85c	130-200	E	strong cont. res.
	LC&92a	130-180	P,T	relative, high res. (200 meV); comp. of PF_5, $POCL_3$, POF_3; cont. res.
Cl_3P	MK80	132-146	P	res. at thresh.
	TKM81	133-146	P	relative, synchrotron radiation spectrum
	TKM82	133-144	T	X-alpha (MSM), comp. to expt (K77)
	SB85c	130-200	E	cont. res; dipole forbidden trans. (135eV), rapid variation with K
	II&87	130-270	P	absolute, high res. (0.03-0.07 eV)
	H90a	130-150	E	re-assignment of SB85c; dipole forbidden
	N95	130-170	T	DVXa; absolute; comp to II&87; bond length corr. (also PO_x, SO_x, CLO_x)
	HBC96	130-170	P	absolute; ab initio; TIY,PIY,PIPICO; PE2PICO; PF_3,PCl_3,CF_3PCl_2 comp.
	AB97	0-350	E	absolute; total and partial ion yield from (e,e+ion); dipole breakdown
	KC&97b	131-149	P,T	absolute; TIY, PF_3^+ yield; LS-states; GSCF3 ab inito
	HH&98	128-150	E	absolute; comp. of $(t\text{-}Bu)_2PCl$, PCl_3, PMe_3
	NJ&98	120-170	P,T	absolute; GSCF3 calc.; LS-state; comp of PX_3, YPF_3. X=Cl,F, Y=O,S)
	NH&03	130-200	P	absolute; TIY, PIY, quantitative fragmentation; comp to (e, e+ion)
Cl_3PS	TKM82	133-143	T	X-alpha (MSM), comp. to expt (K77)
F_3P	SB85c	130-205	E	strong cont. res.
	II&87	130-270	P	absolute, high res. (0.03-0.07 eV)
	LC&90	125-210	P,T	high res.; MS-Xa; Ryd.; pot. barr. shape res.; PX_3 (X=H,F,CH_3)
	VK&92	130-150	P	TEY; res. Auger/AI differ; participator vs. spectator; ultrafast decay
	N95	130-170	T	DVXa; absolute; comp to II&87; bond length corr. (also PO_x, SO_x, CLO_x)
	HBC96	130-170	P,T	absolute; ab initio; TIY, PIY, PIPICO;PF_3,PCl_3,CF_3PCl_2 comp.
	KB&96	130-150	P,T	TIY vs PF_3^+; ab initio; (LS) state at 136.4 eV - only $2p_{1/2}$ component
	ACB97	5-300	E	absolute; total absorption; total and partial ion yields; ioniz. eff.
	HN&98	132-142	P	total and partial IY; PEPIPICO; LS-state in PF_2^+ as well; improved timing
	NJ&98	120-170	P,T	absolute; GSCF3 calc.; LS-state; comp of PX_3, YPF_3. X=Cl,F, Y=O,S)
	UM&99	134-166	P,T	relative; TIY; symmetry resolved – isotropic; 50 meV; DVXα; quasi isotropic ($\beta < 0.1$) even though P-F axial / equatorial differ
	KI00	134-140	T	ab initio; spin-orbital Breit-Pauli; molecular field; comp. of SO_2, COS, PF_3
	HN02	130-170	P,R	PIY, selective fragmentation; conditions for quantitative yields
	NH&03	130-200	P	absolute; TIY, PIY, quantitative fragmentation; comp to (e, e+ion)
F_3OP	SB85d	130-210	E	strong cont. res.

	LC&92a	130-180	P,T	relative, high res. (200 meV); comp. of PF_5, $POCL_3$, POF_3; cont. res.
	JKC99	134-160	P,T	relative, GSCF3; comp. to NSF_3
F_3PS	HN&98	130-205	P	total and partial IY; PEPIPICO; site- and state-selective fragmentation
	HN02	130-170	P,R	PIY, selective fragmentation
F_5P	SB85d	130-210	E	strong cont. res.
	TL91	135-145	P	relative; gas-sol. comp.; Ryd. structure supressed in sol.
	LC&92a	130-180	P,T	relative, high res. (200 meV); comp. of PF_5, $POCL_3$, POF_3; cont. res.
H_3P	HB72	120-220	P	absolute, Rydberg analysis IP (137.3, 138.2)
	C73	100-120	P,R	review
	R75	130-140	T	alternate assignment of HB72
	S75a,b	130-140	T	Z+1 analogy calc., alternate assignment of HB72
	F76	130-140	P	absolute, gas-solid comp.
	FS&79	130-140	P,T	absolute, photographic, gas-solid comp.
	SYD82	130-165	T	ab initio, absolute, comp. to expt (HB72)
	SB85c	130-210	E	broad cont. maximum (delayed thresh.?)
	II&87	130-270	P	absolute, high res. (0.03-0.07 eV)
	LC&90	125-210	P,T	high res.; MS-Xa; Ryd.; pot. barr. shape res.; PX_3 (X=H,F,CH_3)
	ZCB90	120-220	E	absolute; ion yields; comp. to other PA (FS&79, HB72; II&87), atomic theory; supports atomic cont. normalisation at E > IP+25eV
	LB&95	130-170	T	MS-Xa; comp. of XH_n (X=Si,P,S,Cl)
	U98	131-132	P,R	resonant Auger; ultrafast dissociation

<u>Phosphorus 1s</u> (2155 eV)

Br_3P	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
CCl_2H_3P	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
CCl_2H_3OP	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
CCl_2H_3OP	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
CCl_2H_3PS	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
$C_2ClH_6PO_2S$	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
C_3H_9P	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
$C_3H_9O_4P$	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
$C_3H_9O_3P$	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
$C_3H_9O_3PS$	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
$C_6H_{15}P$	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
$C_{18}H_{15}PO_3$	KC&92	2.14-2.19	P,T	$(C_6H_5O)_3P$; relative, MS-Xa of PO_3^{3-} clusters
$C_{18}H_{15}PO_4$	KC&92	2.14-2.19	P,T	$(C_6H_5O)_3PO$; relative, MS-Xa of PO_4^{4-} clusters
Cl_3OP	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
Cl_3P	GDT97	2.14-2.20	P,T	relative; TIY, MS-Xa; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.
	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
Cl_3PS	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
F_3P	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
	NT&99b	2.12-2.20	P	TIY, PIY; PEPIPICO; pol. dep.; selective frag.; cascade processes
	JC01	2.14-2.18	P	relative; comparison of NX_3, PX_3 1s edges; pot. barr. effects
F_3PS	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
	NT&99a	2.12-2.20	P	TIY, PIY; PEPIPICO; pol. dep.; selective frag.; cascade processes
	NT&99b	2.14-2.17	P,T	symmetry resolved PIY; GSCF3
	HN02	2.14-2.17	P,R	symmetry resolved PIY
F_3OP	CJ99	2.13-2.18	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
	NT&99B	2.12-2.20	P	TIY, PIY; PEPIPICO; pol. dep.; selective frag.; cascade processes
F_5P	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger

H_3P	CJ99	2.14-2.15	P	chemical shifts of P1s→1e* ; correlation to XPS, Auger
	JC01	2.14-2.18	P	relative; comparison of NX_3, PX_3 1s edges; pot. barr. effects
H_4P	KNP91	2.14-2.19	T	PH_4, SCF-CI in (Z+1); comp. of CH_4, SiH_4, PH_4, NH_4 K-shell spectra
NiP_2	DCT98	2.15	T	partial localization of core hole
O_6P_4	KC&92	2.14-2.16	P,T	relative, EXAFS; MS-Xa of PO_3^{3-}; bond length corr.
	EK&97d	2.13-21.8	P,T	relative; ioniz. yield; comp. of PO_nX cage compounds; DFT
$O_6\ P_4S$	EK&97d	2.13-21.8	P,T	relative; ioniz. yield; comp. of PO_nX cage compounds; DFT
$O_6\ P_4Se$	EK&97d	2.13-21.8	P,T	relative; ioniz. yield; comp. of PO_nX cage compounds; DFT
$O_7\ P_4$	EK&97d	2.13-21.8	P,T	relative; ioniz. yield; comp. of PO_nX cage compounds; DFT
$O_{10}\ P_4$	KC&92	2.14-2.16	P,T	relative, EXAFS; MS-Xa of PO_4^{4-}; no match of shape res. & d(R)

Potassium 1s (3.61 keV)

BrK	EK&95b	3.60-3.63	P	comp. of alkali halide spectra; cluster contribution identified
FK	TW&99	3.60-3.62	P	comp. to clusters, solid
$(FK)_n$	TW&99	3.59-3.66	P	cluster spectra s f(<n>) n= 2 –18; comp. to KF, solid

Rhenium 4f (42 eV)

$C_{12}H_{15}N_2O_2Re$	30-280	HS92	E	$C\pi*Re(CO)_2N_2$

Selenium 3d (60 eV)

C_4H_4Se	HTB89	50-160	E	(selenophene), comp. to solid
C_5H_6Se	HTB89	50-160	E	(3-methylselenophene), comp. to solid
SeF_6	SB90	60-160	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. barr.s
Se_2	CM77b	50-160	P	photographic, double excitation, comp. to solid Se

Selenium 3p, 3s (180, 220 eV)

SeF_6	AT&86b	160-210	P	absolute, comp. to SF_6, SF_5Cl, weak Se 4d cont. res.
	SB90	160-270	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. barr.s
C_4H_4Se	HTB89	160-210	E	(selenophene), comp. to solid
C_5H_6Se	HTB89	160-210	E	(3-methylselenophene), comp. to solid

Selenium 1s (12660 eV)

Se_2	NY&02	12.3-13.9	P	TIY, PEPICO; cluster-size selective EXAFS through PIY; R_{Se-Se} = 2.17
Se_5	NY&02	12.3-13.9	P	TIY, PEPICO; cluster-size selective EXAFS through PIY
Se_6	NY&02	12.3-13.9	P	TIY, PEPICO; cluster-size selective EXAFS through PIY; R_{Se-Se} = 2.35
Se_7	NY&02	12.3-13.9	P	TIY, PEPICO; cluster-size selective EXAFS through PIY

Silicon 2p, 2s (110, 160 eV)

Br_4Si	PV&79	100-140	T	X-alpha (MSM) calc. of cont. shape
	PDK97	90-120	P	high res.; vibrational structure -> excited geom, SiX_4, X=H,D,F,Cl,Br
	PDK98	105-112	P	relative; TIY; high res. (15 meV); comp. of SiX_4, X=H,D,F,Cl,Br,Me; Z+1 tests; Franck-Condon analysis; G of 40-85 meV
	BL&98	50-450	P,T	relative, TIY, PIY
CCl_3H_3Si	FZ&70	102-112	P	$MeSiCl_3$; pot. barr. effects
	BNZ72	102-112	T	semi-empirical calc., comp. to expt. (FZ&70)
CF_3H_3Si	BBT90	100-200	P,T	$MeSiF_3$; relative, 0.15 eV fwhm; Xa; res. incr. with more F

	BT&92	100-140	P	relative; TEY, TIY, PA compared; quadrupole-MS PIMS; CH_3 more labile than F; CH_3^+ enhanced in discrete res.; F 1s mass spec
	NMK97	100-180	P,R	site-specific fragmentation; comp. to $SiMe_4$; surface desorption
	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_2Cl_2H_6Si$	FZ&70	102-112	P	Me_2SiCl_2; pot. barr. effects
	BNZ72	102-112	T	semi-empirical calc., comp. to expt. (FZ&70)
	CL&97	102-104	P	60 meV; comp. to solid; valence/Rydberg char.
$C_2F_2H_6Si$	BBT90	100-200	P,T	Me_2SiF_2; relative, 0.15 eV fwhm; Xa; res. incr. with more F
	BT&92	100-140	P	relative; TEY, TIY, PA compared; quadrupole-MS PIMS; CH_3 more labile than F; CH_3^+ enhanced in discrete res.; F 1s mass spec
C_3ClH_9Si	FZ&70	102-112	P	Me_3SiCl; pot. barr. effects
	BNZ72	102-112	T	semi-empirical calc., comp. to expt. (FZ&70)
$C_3Cl_3H_9Si_2$	NO&93	100-112	P	Me_3Si-$SiCl_3$; site-specific ionic. fragm.; PEPICO, PIPICO resonant Auger; comp. of $SiMe_4$, $SiCl_4$; Si_2Me_6 and Cl_3Si-$SiMe_3$
	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
C_3FH_9Si	BBT90	100-200	P,T	Me_3SiF; relative, 0.15 eV fwhm; Xa; res. incr. with more F
	BT&92	100-140	P	relative; TEY, TIY, PA compared; quadrupole-MS PIMS; CH_3 more labile than F; CH_3^+ enhanced in discrete res.; F 1s mass spec
$C_3F_3H_9Si_2$	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
C_3H_6Si	TWM95	93-100	T	c-$(SiMe)_3$; cyclo-polysilanes; ab initio EICVOM calc.
$C_4F_3H_9O_3SSi$	UH94a	100-200	E	$Me_3SiOSO_2CF_3$; comp of SI-O-X species re inductive, resonance effects
$C_4F_3H_{11}Si_2$	NMK97	100-180	P,R	$F_3Si(CH_2)SiMe_3$; site-specific frag.; comp. to $SiMe_4$; surface desorption
	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_4F_3H_{14}Si_2$	NO&95	100-120	P	$CF_3SiCH_2SiMe_3$, ionic fragmentation; site specific (SiF_3 vs. $SiMe_3$) partial yields identify chemical shift undetected in absorption
C_4H_8Si	TWM95	93-100	T	c-$(SiMe)_4$; cyclo-polysilanes; ab initio EICVOM calc.
$C_4H_{12}OSi$	SK&93b	90-190	P,T	$Me_3Si(OMe)$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
	UH94a	100-200	E	comp of SI-O-X species re inductive, resonance effects
	WMT94b	95-140	E,T	EICVOM SCF (gamess) calc.; Ryd.-val mix; $Me_xSi(OMe)_{4-x}$, x=0-4
	UT&97	90-110	P	absolute; Si-Si & Si-O-R
$C_4H_{12}O_2Si$	SK&93b	90-190	P,T	$Me_2Si(OMe)_2$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
	WMT94b	95-140	E,T	EICVOM SCF (gamess) calc.; Ryd.-val mix; $Me_xSi(OMe)_{4-x}$, x=0-4
$C_4H_{12}O_3Si$	SK&93b	90-190	P,T	$MeSi(OMe)_3$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
	WMT94b	95-140	E,T	EICVOM SCF (gamess) calc.; Ryd.-val mix; $Me_xSi(OMe)_{4-x}$, x=0-4
$C_4H_{12}O_4Si$	SK&93b	90-190	P,T	$Si(OMe)_4$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
	WMT94b	95-140	E,T	EICVOM SCF (gamess) calc.; Ryd.-val mix; $Me_xSi(OMe)_{4-x}$, x=0-4
$C_4H_{12}Si$	FZ&70	102-112	P	Me_4Si; pot. barr. effects
	BNZ72	102-112	T	semi-empirical calc., comp. to expt. (FZ&70)
	SD&84	50-280	E	cont. res., comp. to SiH_4, SiF_4
	M85	100-110	P	shape res. at thresh., coupling to valence states, ionic
	SD&85	50-280	E	cont. res., fragmentation is state selective
	SMN85	100-150	P	shape res. at thresh.; partial cross-sections
	MS&86	100-112	P	PES & ionic fragmentation (PIPICO) around edge, 2 res.
	BT&87	100-200	P,T	0.3 eV FWHM, comp to other expt, X-alpha calc
	NB87	100-120	P,R	decay effects, Auger, ion yields (review)
	N88	100-110	P,R	electron & ion yield spectra, discrete (DES) & cont. states
(Me_4Si cont'd)	BBT90	100-200	P,T	Me_4Si; relative, 0.15 eV fwhm; Xa; res. incr. with more F
	BT&92	100-140	P	relative; TEY, TIY, PA compared; quadrupole-MS PIMS; CH_3 more labile

				than F; CH_3^+ enhanced in discrete res.; F 1s mass spec
	W92	100-150	E	comp. of $SiMe_4$, Si_2Me_6, Si_6Me_{12}; σ*(Si-Si)
	NO&93	100-112	P	site-specific ionic. fragm.; PEPICO, PIPICO resonant Auger; comp. of $SiMe_4$, $SiCl_4$; Si_2Me_6 and Cl_3Si-$SiMe_3$
	SK&93b	90-190	P,T	gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; comparison of $Si(OMe)_x(Me_{4-x}$ x=0-4 series
	SL&93	100-117	P	total ion yield; PEPIPICO
	UX&94	90-170	E	comp. of edges of Si-Si compounds
	WMT94b	95-140	E,T	EICVOM SCF (gamess) calc.; Ryd.-val mix; $Me_xSi(OMe)_{4-x}$, x=0-4
	NMK97	110-120	P,R	site-specific fragmentation; comp. to $SiMe_4$; surface desorption
	PDK98	105-112	P	relative; TIY; high res. (15 meV); comp. of SiX_4, X=H,D,F,Cl,Br,Me; Z+1 tests; Franck-Condon analysis; G of 40-85 meV
	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_5Cl_3H_9Si_2$	NO99	95-120	P	Cl_3SiC:::$CsiMe_3$; TIY, PIY; site specific fragmentaiton
	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_5F_3H_9Si_2$	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_5F_3H_{11}Si_2$	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_5F_3H_{13}Si$	NMK97	100-180	P,R	$F_3Si(CH_2)_2SiMe_3$; site-specific frag.; comp. to $SiMe_4$; surface desorption
	NF&97	100-120	P	site-specific fragmentation; no e- migration between two ends
	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_6F_3H_{15}Si_2$	NF&02	1001-20	P	site-specific fragmentation; comp. of X_3Si-y-$SiMe_3$, X=F,Cl, y = (C_xH_y)
$C_5H_{10}Si$	TWM95	93-100	E,T	c-$(SiMe)_5$; cyclo-polysilanes; ab initio EICVOM calc.; expt. comp. to ETS
$C_5H_{14}OSi$	TC&02	85-220	E	Me3SiOEt; absolute; comp. to vinyl silanes
$C_5H_{15}NSi$	UH94b	90-200	E	$Me_3Si(NME_2)$; comp. of Si-N cmpds; models for SiN_xO_y films
C_6H_6OSi	UT&97	90-110	P	Ph_3SiOH; absolute; Si-Si & Si-O-R
$C_6H_{12}Si$	TWM95	93-100	E,T	c-$(SiMe)_6$; cyclo-polysilanes; ab initio EICVOM calc.; expt. comp. to ETS
$C_6H_{16}OSi$	UH94a	100-200	E	Et_3SiOH; comp of SI-O-X species re inductive, resonance effects
$C_6H_{18}Si_2$	W92	100-150	E	Me_3Si-$SiMe_3$; comp. of $SiMe_4$, Si_2Me_6, Si_6Me_{12}; σ*(Si-Si)
	NO&93	100-112	P	site-specific ionic. fragm.; PEPICO, PIPICO resonant Auger; comp. of $SiMe_4$, $SiCl_4$; Si_2Me_6 and Cl_3Si-$SiMe_3$
	SL&93	100-117	P	total ion yield; PEPIPICO; detailed fragmentation map; KERDS
	UX&94	90-170	E	comp. of edges of Si-Si compounds
	XJ&96	90-130	P,T	gas-solid comp.; weak Ryd on strong valence; MS-Xa pred. mixed R,V
$C_6H_{18}OSi_2$	UH94a	100-200	E	$Me_3SiOSiMe_3$; comp of SI-O-X species re inductive, resonance effects
$C_6H_{18}O_3Si_3$	UH94a	100-200	E	c-$(SiMe_2O)_3$; comp of SI-O-X species re inductive, resonance effects
$C_6H_{18}OSi_2$	UT&97	90-110	P	Me_3Si-O-$SiMe_3$; absolute; Si-Si & Si-O-R
$C_6H_{18}Si_2$	UT&97	90-110	P	Me_3Si-$SiMe_3$; absolute; Si-Si & Si-O-R
$C_7H_8N_2O$	UH&95a	100-160	E	phenylurea; absolute; modelling of polyurethane PEELS
$C_8H_{12}Si$	HS90	90-140	E	HC/C-CH_2-C/C-$SiMe_3$; absolute; comp. to other :::-bonded species
$C_8H_{12}O_3Si$	TC&02	90-200	E	$(CH_2$=CH)$Si(OAc)_3$; absolute; vinyl silanes
$C_8H_{18}O_3Si$	TC&02	90-200	E	$(CH_2$=CH)$Si(OEt)_3$; absolute
$C_8H_{24}N_4Si$	UH94b	90-200	E	$Si(NMe_2)_4$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_8H_{24}O_4Si_4$	UH94a	100-200	E	c-$(SiMe_2O)_4$; comp of SI-O-X species re inductive, resonance effects
$C_9H_{27}NSi_3$	UH94b	90-200	E	$N(SiMe_3)_3$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_9H_{28}Si_4$	UX&94	90-170	P	$HSi(SiMe_3)_3$; Xa; search for σ*(Si-Si)
$C_{10}H_{20}N_2Si$	UH&98	95-170	E,T	c-Si(RNCH=CHNR), R=tBu, silylene; absolute; delocal. in Si-N-C=C
$C_{10}H_{22}N_2Si$	UH&98	95-170	E,T	c-Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute;
$C_{10}H_{22}N_2Si$	UH&98	95-170	E,T	c-H_2Si(RNCH=CHNR), R=tBu, silylene; absolute; no delocal.
$C_{10}H_{24}N_2Si$	UH&98	95-170	E,T	c-H_2Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute
$C_{11}H_{21}NOSi_2$	NF&96	100-130	P,T	$Me(SiMe_3N$=)$COSiMe_3$; PEPICO; ion yields; PIPICO; no Si site select.; gs. calc of $MeCF_3$, SiH_3CF_3, $MeSiF_3$, SiH_3SiF_3; LUMO of SiH_3SiF_3 is p
$C_{12}H_{36}Si_5$	W92	90-140	E	$Si[Si(CH_3)_3]_4$

	UX&94	90-170	E	comp. of edges of Si-Si compounds
	XJ&95	90-130	P,T	MS-Xa calc of Si 2p and Si 1s
$C_{12}H_{36}Si_6$	W92	100-150	E	c-Si_6Me_{12}; comp. of $SiMe_4$, Si_2Me_6, Si_6Me_{12}; σ*(Si-Si)
	UX&94	90-170	E	comp. of edges of Si-Si compounds; σ*(Si-Si)
$C_{18}H_{16}OSi$	UT&97	100-145	E,T	triphenylsilanol, comp. of Si-O-X species
$C_{30}H_{30}Si_2$	UT&97	90-110	P	Bz_3Si-$SiBz_3$; absolute; Si-Si & Si-O-R
$C_{30}H_{30}Si_2O$	UT&97	90-110	P	Bz_3Si-O-$SiBz_3$; absolute; Si-Si & Si-O-R
ClH_3Si	WM&89	100-110	T	comp. of ETS, ISEELS; orb. order;{SiH_xCl_{4-x}(x=0-4),SiF_4} SE 6.1eV
	WM&91	100-110	T	comp. of ETS, ISEELS; orb. order; {SiH_xCl_{4-x}(x=0-4), SE 6.1 eV
	T94	100-120	T	comp. of ISEELS TV and ^{29}Si nmr shielding; {SiH_xCl_{4-x}(x=0-4)
	WMT94a	100-140	E,T	ab initio; ISEELS vs. ETS; questions 'constancy of stabilization energy'-(TV-EA); comp. of SiH_xCl_{4-x}, x= 0-3
Cl_2H_2Si	WM&89	100-110	T	comp. of ETS, ISEELS; orb. order; {SiH_xCl_{4-x}(x=0-4),SiF_4} SE 6.1eV
	WM&91	100-110	T	comp. of ETS, ISEELS; orb. order; {SiH_xCl_{4-x}(x=0-4), SE 6.1 eV
	T94	100-120	T	comp. of ISEELS TV and ^{29}Si nmr shielding; {SiH_xCl_{4-x}(x=0-4)
	WMT94a	100-140	E,T	ab initio; ISEELS vs. ETS; questions 'constancy of stabilization energy'-(TV-EA); comp. of SiH_xCl_{4-x}, x= 0-3
Cl_3HSi	WM&89	100-110	T	comp. of ETS, ISEELS; orb. order;{SiH_xCl_{4-x}(x=0-4),SiF_4} SE 6.1eV
	WM&91	100-110	T	comp. of ETS, ISEELS; orb. order; {SiH_xCl_{4-x}(x=0-4), SE 6.1 eV
	T94	100-120	T	comp. of ISEELS TV and ^{29}Si nmr shielding; {SiH_xCl_{4-x}(x=0-4)
	WMT94a	100-140	E,T	ab initio; ISEELS vs. ETS; questions 'constancy of stabilization energy'-(TV-EA); comp. of SiH_xCl_{4-x}, x= 0-3
Cl_4Si	FZ&70	102-112	P	pot. barr. effects
	ZV71	100-140	P,R	pot. barr. effects
	BNZ72	102-112	T	semi-empirical calc., comp. to expt. (FZ&70)
	D72	100-140	P,R	pot. barr. effects
	GM&76	103-115	P	Rydberg structure, no analysis
	PV&79	100-140	T	X-alpha (MSM) calc. of cont. shape, comp. to expt.
	TD84	100-300	T	X-alpha calc. (MSM), comp. to expt.
	CS&86	115-142	P,T	absolute, bs, MS-Xalpha, e & two t_2 res. identified
	BT&87	100-200	P,T	0.3 eV FWHM, comp to other expt, X-alpha calc
	AS&88	100-110	P	DES, spectator dominates
	CG&88	100-130	P,T	DES, bs, spectator dominates
	CM&88b	100-113	P	DES, weak non-spectator (participator) obs; 2p<--7t_2 strongest
	TL&89	90-140	T	absolute, X-alpha calc.; cont. & discrete; Rydbergs
	WM&89	100-110	T	comp. of ETS, ISEELS; orb. order;{SiH_xCl_{4-x}(x=0-4,SiF_4} SE 6.1eV
	RW&90a	102-112	P	TEY, fluoresc. ($SiCl_4^+$, Si) yields; comp. to abs (YL&89); enhanced Fl at val. & Rydbergs
	RW&90b	100-140	P	wavelength-res. lum.; comp. of FY and PA
	IF&91	100-170	T	DV-Xa; comp. to exp: SiX_4, X=H,Cl,F; Virt. val. MOs dominate
	RF91	102-112	P	comp. of TEY sol and gas PA (BT&87); distinguish val & Ryd.
	WM&91	100-110	T	comp. of ETS, ISEELS; orb. order; {SiH_xCl_{4-x}(x=0-4), SE 6.1 eV
	D92a	100-140	P,R	fluorescence from core hole decay; comp. of SiF_4, $SiCl_4$
	W92	100-150	E	comp of $SiCl_4$, Si_2Cl_6
	NO&93	100-112	P	Me_3Si-$SiCl_3$; site-specific ionic. fragm.; PEPICO, PIPICO resonant Auger; comp. of $SiMe_4$, $SiCl_4$; Si_2Me_6 and Cl_3Si-$SiMe_3$, $C_6H_{18}Si_2$
	T94	100-120	T	comp. of ISEELS TV and ^{29}Si nmr shielding; {SiH_xCl_{4-x}(x=0-4)
	WMT94a	100-140	E,T	ab initio; ISEELS vs. ETS; questions 'constancy of stabilization energy'-(TV-EA); comp. of SiH_xCl_{4-x}, x= 0-3
(Cl_4Si cont'd)	CK&95	102-115	P	ion yields; compared TEY and CL^+ PSID scaled; 60 meV fwhm; mostly valence except p6d Ryd. at 109 eV; non-standard S-O splitting
	DP&95	104-112	P	TIY; high resolution; vibrations and hot bands identified
	PDK97	90-120	P	high res.; vibrational structure -> excited geom, SiX_4, X=H,D,F,Cl,Br

	MG&98	102-125	P	resonant Auger; strong participator; comp. of SiF_4, SiCl24
	PDK97	90-120	P	high res.; vibrational structure -> excited geom, SiX_4, X=H,D,F,Cl,Br
	PDK98	105-112	P	relative; TIY; high res. (15 meV); comp. of SiX_4, X=H,D,F,Cl,Br,Me; Z+1 tests; Franck-Condon analysis; G of 40-85 meV
Cl_6Si_2	W92	100-150	E	comp of $SiCl_4$, Si_2Cl_6
D_4Si	SB&92	101-108	P	high res. (50 meV); vib'ns in Rydberg; analysed rel. to PES; isotope effect
	SL&94	101-109	P	high resolution; vibrationally-resolved Rydbergs; comp. of SiH_4, SiD_4,
	PDK97	90-120	P	high res.; vibrational structure -> excited geom, SiX_4, X=H,D,F,Cl,Br
Si_2H_6	PD&97	102-108	P	relative; TIY; high res. (15 meV); G=50(5) meV for all nl Rydberg; molecular distortion; Ryd.-val. mix; Franck-Condon analysis for geom.
	PDK98	105-112	P	relative; TIY; high res. (15 meV); comp. of SiX_4, X=H,D,F,Cl,Br,Me; Z+1 tests; Franck-Condon analysis; G of 40-85 meV
F_2Si	ZV72	100-150	P,R	pot. barr. Effects
F_4Si	VZ71a	100-120	P	pot. barr. effects
	ZV71	100-140	P,R	pot. barr. effects
	D72	100-140	P,R	pot. barr. effects
	HB72	100-120	P	absolute, Rydberg analysis IP (110.8, 111.4)
	ZV72	100-170	P,R	pot. barr. effects
	R75	100-120	T	alternate assignment of HB72
	SM&78	100-120	T	X-alpha (MSM), comp. to expt (VZ71a)
	PV&79	100-140	T	X-alpha (MSM) calc. of cont. shape, comp. to expt. (VZ71a)
	FP&80	100-170	P	absolute, gas-solid comp., Z+1 analogy calc.
	PVK80	100-140	T	X-alpha (MSM) calc., comp. to expt., cont. shape res.
	AP&82	100-140	T	absolute, comp. to (VZ71a), cont. shape res.
	DV82	100-140	P	absolute, comp. to theory (AP&82), SiF_6^{2-}(sol)
	PVZ82	100-140	T	multiple scattering, cont. res., comp. to expt. (VZ71a,FP&80)
	PV&82	100-140	P,T	relative, cont. res., comp. to theory (PV&79)
	N84	110-125	P	resonant Auger, cont. res.
	TD84	100-300	T	X-alpha calc. (MSM), comp. to expt.
	AT&86a	100-110	P	resonant Auger at $\sigma^*(a_1)$, 4s & 3d, comp. to normal Auger
	BA&86	116-150	P,T	absolute, MS-Xalpha, t_2 res., bs
	R86	100-170	P	comp. of F^+, e-, PSID of cond. MLs with gas abs.; F^+ yield lower
	FP&88	100-160	P	partial IY & Auger X-sect; comp. to abs.(FP&80), strong shake-up
	LS&89	100-125	P	absolute, comp. of abs., total, partial IYs; double PI X-sect; PCI
	SMN89	100-125	P	thresh. e-; partial e- yields; resonant Auger (DES)
	WM&89	100-110	T	ETS, ISEELS comp.; orb. order; {SiH_xCl_{4-x}(x=0-4, SiF_4} SE 6.1 eV
	RW&90a	100-140	P	comp. of fluorescence yield and PA; selective decay into neutrals
	RW&90c	100-140	P	wavelength-res. lum.; comp. of FY and PA
	BT&92	100-140	P	relative; TEY, TIY, PA compared; quadrupole-MS PIMS; CH_3 more labile than F; CH_3^+ enhanced in discrete res.; F 1s mass spec
	IB&91	100-160	P	absolute; ion yields; PIPICO; quantitative ion collection; KERD
	IF&91	100-170	T	DV-Xa; comp. to exp: SiX_4, X=H,Cl,F; Virt. val. MOs dominate
	S91b	130	P	Auger-ion coincidence
	BT&92	100-140	P	relative; TEY, TIY, PA compared; quadrupole-MS PIMS; CH_3 more labile than F; CH_3^+ enhanced in discrete res.; F 1s mass spec
	D92a	100-140	P,R	fluorescence from core hole decay; comp. of SiF_4, $SiCl_4$
	GC&92	0-350	E	absolute; ion frag.; challenges atomic cont. normal. - need IP+100 eV; differs from earlier spectra (LS&89, IB&91)
(SiF_4 cont'd)	SK&92b	130	P	Auger-ion coincidence; apparatus described
	PD&96	105-113	P	high res. (85 meV); vibn'l struct; mixed Ryd-val; Franck-Condon analysis
	SH&96a	130,145	P	(Auger, ion) coinc; fragment ions resolve states
	OC&97b	5-200	E,R	absolute, VTKR sum rule; derived molecular properties
	PDK97	90-120	P	high res.; vibrational structure -> excited geom, SiX_4, X=H,D,F,Cl,Br

	MG&98	102-125	P	resonant Auger; strong participator; comp. of SiF_4, $SiCl_4$; continuum Auger signal ascribed to nuclear motion (ultrafast decay precursor)
	PDK98	105-112	P	relative; TIY; high res. (15 meV); comp. of SiX_4, X=H,D,F,Cl,Br,Me; Z+1 tests; Franck-Condon analysis; G of 40-85 meV
	FL01	100-190	E	GOS.K-max = 5
	SLS01	105-120	P	TIY, PIY, branching ratios differ from LS&89, IB&91
	SLS02	70-110	P	PEPICO, PIPICO, fragmentation mechanisms
H_4Si	HBK71	100-200	P	absolute, Rydberg analysis IP (107.2, 107.8)
	HB72	100-200	P	absolute, Rydberg analysis IP (107.2, 107.8)
	C73	100-120	P,R	review
	R75	100-120	T	alternate assignment of HB72
	S75a,b	100-120	T	Z+1 analogy calc., alternate assignment of HB72
	S76a	100-120	T	Z+1 analogy, EICVOM
	BF&79	100-170	P	absolute, gas-solid comp.
	FS&79	100-140	P,T	absolute, photographic, gas-solid comp.
	PVK80	100-140	T	X-alpha (MSM) calc., comp. to expt. (FS&79)
	PV&80	100-140	T	X-alpha (MSM) calc, comp. to expt. (FS&79)
	PVZ82	100-140	T	multiple scattering, cont. res., comp. to expt. (FS&79)
	SYD82	105-135	T	ab initio, absolute, comp. to expt (HB72)
	TD84	100-300	T	X-alpha calc. (MSM), comp. to expt.
	SMN86	100-115	P	resonant Auger (DES), dissociation prior to AI
	YA&86	100-115	P	total ion yield; 80 meV fwhm; DES at σ*(Si-H)
	N87	103-123	P	resonant Auger, diss. prior to AI, comp. to Si 1s (BNM86), PIPICO
	N88	100-110	P,R	electron & ion spectra of decay of discrete (DES) & cont. states
	NM&88	103-123	P	ionic decay, partial ion & electron X-sect, PIPICO
	SU90a	100-200	P	partial & total ion yields; PIPICO yields; selective frag.
	CIB90	90-180	E	absolute; comp. to Si(g), Si(sol) [Astrophys. J. 40 (79) 865]; TOF MS at 103 (σ*) & 120 eV; proposes 30% fluorescence yield at σ*
	WM&89	100-110	T	ETS, ISEELS comp.; orb. order; {SiH_xCl_{4-x}(x=0-4,SiF_4} SE 6.1 eV
	IF&91	100-170	T	DV-Xa; comp. to exp: SiX_4, X=H,Cl,F; Virt. val. MOs dominate
	WM&91	100-110	T	comp. of ETS, ISEELS; orb. order; {SiH_xCl_{4-x}(x=0-4), SE 6.1 eV
	SB&92	101-108	P	high res. (50 meV); vibrational structure in Rydberg; analysed rel. to PES; isotope effect
	YP&93	101-135	T	absolute; MC-HF, comp. to expt. [HB72]
	SL&94	101-109	P	high res.; vibrationally-resolved Rydbergs; comp. of SiH_4, SiD_4, Si_2H_6
	T94	100-120	T	comp. of ISEELS TV and ^{29}Si nmr shielding; {SiH_xCl_{4-x}(x=0-4)
	CB&95	80-350	E	absolute; use of S(0) and S(-2) sum rules for accurate osc. str.
	LB&95	100-180	T	MS-Xa; comp. of XH_n (X=Si,P,S,Cl)
	ISN97	90-150	P	mass spectra & abs.; filtered white light to enhance SiH_4 -> Si CVD
	OC&97b	5-200	E,R	absolute, VTKR sum rule; derived molecular properties
	PDK97	90-120	P	high res.; vibrational structure -> excited geom, SiX_4, X=H,D,F,Cl,Br
	PD&97	102-108	P	relative; TIY; high res. (15 meV); G=50(5) meV for all nl Rydberg; molecular distortion; Ryd.-val. mix; Franck-Condon analysis for geom.
	PDK98	105-112	P	relative; TIY; high res. (15 meV); comp. of SiX_4, X=H,D,F,Cl,Br,Me; Z+1 tests; Franck-Condon analysis; G of 40-85 meV
H_6Si_2	SB&92	101-108	P	SiH_3-SiH_3; high res. (50 meV); vibrational structure in Rydberg; analysed rel. to PES; isotope effect
	SL&94	101-109	P	high resolution; vibrationally-resolved Rydbergs; comp. of SiH_4, SiD_4, Si_2H_6; low-lying σ*(Si-Si)
H_8Si_3	SB&92	101-108	P	SiH_3-SiH_2-SiH_3; high res. (50 meV); vibrational structure in Rydberg; analysed rel. to PES; isotope effect

Silicon 1s (1850 eV)

Br_4Si	BM&89a	1.80-2.04	P	double excitation (1s,2p) multiplets
	BMN90	1.80-2.15	P,T	relative, chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
CCl_3H_3Si	HC&87a	1.84-1.90	P	shape res.
	FBN90	1.83-1.90	P	discrete & cont. shape res.; double excitation
$C_2Cl_2H_2Si$	HC&87a	1.84-1.90	P	shape res.
	FBN90	1.80-2.35	P	discrete & cont. shape res.; KL double excitation
C_3ClH_3Si	HC&87a	1.84-1.90	P	shape res.
	FBN90	1.83-1.90	P	discrete & cont. shape res.; double excitation
$C_4H_{10}OSi$	UT&97	1.83-1.87	P	trimethylsilanol; absolute; Si-Si & Si-O-R
$C_4H_{12}O_4Si$	BMN90	1.80-2.15	P,T	$(OMe)_4Si$; rel.; chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
$C_4H_{20}O_4Si$	BMN90	1.80-2.15	P,T	$(OEt)_4Si$; rel.; chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
$C_4H_{12}Si$	BN86	1.83-1.88	P	$Si(Me)_4$; relative, comp. to SiX_4, X=F,Cl,H,CH_3
	BNM86	1.84-1.88	P,T	comp. to SiX_4, X=F,Cl,H,CH_3, Si2p (SD&85,MS&86)
	HC&87a	1.84-1.90	P	shape res.
	BM&89a	1.96-2.04	P	double excitation (1s,2p) multiplets
	BMN90	1.80-2.15	P,T	relative, chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
	DS&92	1.82-2.60	P,T	XANES and EXAFS interpreted by MS-Xa; MS paths analysed
	FT&93	1.95-2.02	P,T	KL 2e- exc.(data from BM&89a; comp. of solid Si, P, S, Cl species
	HT&93	1.82-1.86	P	comp. of $SiMe_4$, $Si(GeMe_3)_4$, $Si(SiMe_3)_4$, $Ge(SiMe_3)_4$; Si-Ge ALS
	SK&93b	1.83-1.89	P,T	gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
	UX&94	1.82-1.90	P	comp. of edges of Si-Si compounds; search for σ*(Si-Si)
	XJ&96b	1.83-2.60	P	xanes, xafs; comp. of $SiMe_4$, $Si(SiMe_3)_4$, $Si(GeMe_3)_4$, $Ge(SiMe_3)_4$
$C_4H_{12}SiO$	SK&93b	1.83-1.89	P,T	$Me_3Si(OMe)$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
	UT&97	1.83-1.87	P	absolute; Si-Si & Si-O-R
$C_4H_{12}SiO_2$	SK&93b	1.83-1.89	P,T	$Me_2Si(OMe)_2$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
$C_4H_{12}SiO_3$	SK&93b	1.83-1.89	P,T	$MeSi(OMe)_3$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
$C_4H_{12}SiO_4$	SK&93b	1.83-1.89	P,T	$Si(OMe)_4$; gas phase analogs of solid SiC/SiO_2; 2p vs. 1s; good at 2p poor at 1s; MS-Xa calc; $Si(OMe)_x(Me)_{4-x}$ x=0-4 series
$C_5H_{15}NSi$	UH&94b	1.82-2.20	P	$Me_3Si(NMe_2)$; comp. of Si-N cmpds; models for SiN_xO_y films
C_6H_8Si	UT&97	1.83-1.87	T	phenylsilane; ab initio; EHMO; comp to Ph_3Si-X
$C_6H_{18}N_2Si$	UH&94b	1.82-2.20	P	$Me_2Si(NMe_2)_2$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_6H_{18}N_3Si$	UH&94b	1.82-2.20	P	$HSi(NMe_2)_3$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_6H_{18}OSi_2$	UT&97	1.83-1.87	P	Me_3Si-$OSiMe_3$; absolute; Si-Si & Si-O-R
$C_6H_{18}O_3Si_3$	UH94a	1.82-2.20	P	c-$(SiMe_2O)_3$; comp of SI-O-X species re inductive, resonance effects
$C_6H_{18}Si_2$	UX&94	1.82-1.90	P	Me_3Si-$SiMe_3$; comp. of edges of Si-Si compounds; search for σ*(Si-Si)
	XJ&96a	1.82-1.84	P,T	gas-solid comp.; weak Ryd. on strong valence; MS-Xa pred. mixed R,V
	XJ&96b	1.83-2.60	P	xanes, xafs; comp. of $SiMe_4$, $Si(SiMe_3)_4$, $Si(GeMe_3)_4$, $Ge(SiMe_3)_4$
	UT&97	1.83-1.87	P	triphenylsilanol; absolute; Si-Si & Si-O-R
$C_7H_{21}N_3Si$	UH94b	1.82-2.20	P	$MeSi(NMe_2)_2$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_8H_{20}O_4Si$	UH94a	1.82-2.20	P	$Si(OEt)_4$; comp of SI-O-X species re inductive, resonance effects
$C_8H_{20}Si$	BMN90	1.80-2.15	P,T	$(Et)_4Si$; rel.; chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
$C_8H_{24}N_4Si$	UH94b	1.80-2.20	P	$Si(NMe_2)_4$; comp. of Si-N cmpds; models for SiN_xO_y films
$C_8H_{24}O_4Si_4$	UH94a	1.80-2.20	P	c-$(SiMe_2O)_4$; comp of SI-O-X species re inductive, resonance effects
$C_9H_{14}Si$	UT&97	1.83-1.87	P	trimethylphenylsilane; a initio; EHMO
$C_9H_{27}NSi_3$	UH94b	1.80-2.20	P	$N(SiMe_3)_3$; comp. of Si-N cmpds; models for SiN_xO_y films

$C_{10}H_{20}N_2Si$	UH&98	1.83-1.86	P,T	c-Si(RNCH=CHNR), R=tBu, silylene; absolute; delocal. in Si-N-C=C
$C_{10}H_{22}N_2Si$	UH&98	1.83-1.86	P,T	c-Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute;
$C_{10}H_{22}N_2Si$	UH&98	1.83-1.86	P,T	c-H_2Si(RNCH=CHNR), R=tBu, silylene; absolute; no delocal.
$C_{10}H_{24}N_2Si$	UH&98	1.83-1.86	P,T	c-H_2Si($RNCH_2CH_2NR$), R=tBu, unsat. silylene; absolute;
$C_{12}GeH_{36}Si_4$	HT&93	1.82-1.86	P	comp. of $SiMe_4$, $Si(GeMe_3)_4$, $Si(SiMe_3)_4$, $Ge(SiMe_3)_4$; Si-Ge ALS
	XJ&96b	1.83-2.60	P	xanes, xafs; comp. of $SiMe_4$, $Si(SiMe_3)_4$, $Si(GeMe_3)_4$, $Ge(SiMe_3)_4$
$C_{12}Ge_4H_{36}Si$	HT&93	1.82-1.86	P	comp. of $SiMe_4$, $Si(GeMe_3)_4$, $Si(SiMe_3)_4$, $Ge(SiMe_3)_4$; Si-Ge ALS
	XJ&96b	1.83-2.60	P	xanes, xafs; comp. of $SiMe_4$, $Si(SiMe_3)_4$, $Si(GeMe_3)_4$, $Ge(SiMe_3)_4$
$C_{12}H_{36}Si_5$	HT&93	1.82-1.86	P	comp. of $SiMe_4$, $Si(GeMe_3)_4$, $Si(SiMe_3)_4$, $Ge(SiMe_3)_4$; Si-Ge ALS
	UX&94	1.82-1.90	P	comp. of edges of Si-Si compounds; search for σ*(Si-Si)
	XJ&95	1.82-1.90	P,T	MS-Xa calc of Si 2p and Si 1s
	XJ&96b	1.83-2.60	P	xanes, xafs; comp. of $SiMe_4$, $Si(SiMe_3)_4$, $Si(GeMe_3)_4$, $Ge(SiMe_3)_4$
$C_{12}H_{36}Si_6$	UX&94	1.82-1.90	P	c-$(SiMe_2)_6$; comp. of edges of Si-Si compounds; search for σ*(Si-Si)
$C_{18}H_{16}OSi$	UT&97	1.83-1.87	P	triphenylsilanol; absolute; Si-Si & Si-O-R
$C_{30}H_{30}Si_2$	UT&97	1.83-1.87	P	Bz_3Si-SiBz_3; absolute; Si-Si & Si-O-R
Cl_4Si	M66	1.83-2.13	P	extended fine structure (EXAFS)
	BN86	1.83-1.88	P	relative, comp. to SiX_4, X=F,Cl,H,CH_3
	BNM86	1.84-1.88	P,T	comp. to SiX_4, X=F,Cl,H,CH_3, Si2p (SD&85,MS&86)
	BF&87	1.84-1.90	P,T	shape res.; comp. to Cl1s; ab initio-CI calc.
	HC&87a	1.84-1.90	P	shape res.
	BM&89a	1.96-2.04	P	double excitation (1s,2p) multiplets
	TL&89	1.83-1.88	T	absolute, X-alpha calc.; cont. & discrete; Rydbergs
	BMN90	1.80-2.15	P,T	relative, chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
	FBN90	1.83-1.90	P	discrete & cont. shape res.; double excitation
	DS&92	1.82-2.60	P,T	XANES and EXAFS interpreted by MS-Xa; MS paths analysed
	FT&93	1.95-2.02	P,T	KL 2e- exc.(data from BM&89a); comp. of solid Si, P, S, Cl species
D_4Si	BMN90	1.80-2.15	P,T	relative, chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
FH_3Si	KP92b	1.84-1.85	T	SCF-CI; comp. to SiH_4
F_2H_2Si	KP93	1.84-1.85	T	ab inito; MRD-CI; dipole & quadrupole; comp. to FH_3Si and SiH_4
F_4Si	BN86	1.83-1.88	P	relative, comp. to SiX_4, X=F,Cl,H,CH_3
	BNM86	1.84-1.88	P,T	comp. to SiX_4, X=F,Cl,H,CH_3, Si2p (SD&85,MS&86)
	BM&89a	1.80-2.30	P	double excitation (1s,2p) multiplets; EXAFS
	BMN90	1.80-2.15	P,T	relative, chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
	OCT91	2.00-2.10	T	double core vacancies (KL); comp. to BM&89a
	DS&92	1.82-2.60	P,T	XANES and EXAFS interpreted by MS-Xa; MS paths analysed
	FT&93	1.95-2.02	P,T	KL 2e- exc.(data from BM&89a); comp. of solid Si, P, S, Cl species
H_4Si	BN86	1.83-1.88	P	relative, comp. to SiX_4, X=F,Cl,H,CH_3
	BNM86	1.84-1.88	P,T	comp. to SiX_4, X=F,Cl,H,CH_3, Si2p (SD&85,MS&86)
	BM&89a	1.96-2.04	P	double excitation (1s,2p) multiplets
	US&89b	1.84-1.86	P	partial & total ion yields; strong multiple ionis.; no sel. frag.
	BMN90	1.80-2.15	P,T	relative, chem. comp.; KL, KV 2e- excit; Ryd-val mix; CI calc
	SU90b	1.84-1.86	P	partial & total IYs; strong. frag.; 12 eV KER; vacancy cascades
	OCT91	2.0-2.1	T	double core vacancies (KL); comp. to BM&89a
	DS&92	1.82-2.60	P,T	XANES and EXAFS interpreted by MS-Xa; MS paths analysed
	KNP92	1.84-1.85	T	SCF-CI; (Z+1); comp. of simpl. ab initio methods; comp. to ext [BMN90]
(H_4Si cont'd)	KP92b	1.84-1.85	T	SCF-CI; comp. to expt [BMN90] and $SiFH_3$ calc.
	FT&93	1.95-2.02	P,T	KL 2e- exc.(data from BM&89a; comp. of solid Si, P, S, Cl species
	KP94a	1.84-1.85	T	SCF-CI; Jahn-Teller effect
OSi	BE&91	1.83-1.88	P	SiO; comp. to sol; strong π* (like CO); gas.NE.sol!!; Z+1 (PO)

<u>Sodium 2p, 2s</u> (50 eV)

Cl_4Na	YS&02	190-230	T	relative; MS-Xα plus DFT; geometry dependence

Na_2	DCZ83	30-160	T	one-electron, cont. X-section, absolute, no shape res., EXAFS or Cooper minimum

Sodium 1s (1072 eV)

BrNa	EK&94b	1050-1100	P	comp. of alkali halides vapors; clusters; Na^- states speculated
ClNa	RSW76	1050-1100	P	photographic, gas-solid comp., cont. res.
FNa	TE&00	1070-1100	P	relative; comp. to Kr-matrix clusters & solid; strong 3s, 3p Ryd disappears
Cl_4Na_4	YS&02	1050-1100	T	relative; MS-Xα plus DFT; geometry dependence
$(ClNa)_n$	RC&01	1070-1100	P,T	EXAFS as f(<n>); TEY, PIY, MS calc; 2.2 –2.8 A

Sulfur 2p, 2s (175, 235 eV)

BHS	EH99	160-240	E,T	absolute; transient from H_2S+B+SiO_2; comp of HBO, HBS, $H_3B_3O_3$
	H00	160-250	E,R	transient ISEELS; comp of HBO,HBS, H_2S
	HE&01	160-240	E	absolute; transient ISEELS
CH_4S	DTH90	150-290	E	CH_3SH, absolute; comp. to S1s, other RSH
COS	WB74e	155-200	E	weak cont. feature
	KGM77	162-174	P	Rydberg analysis IP (170.49)
	TL&84	162-174	P	Auger, PES X-sections, bs, absolute
	CG&88	160-200	P,T	DES, bs, spectator dominates
	NH&88	160-195	R	comp. of ETS, CO_2, COS, CS_2 re location of σ*; decay of core states
	MH&89	140-280	E,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	AEB97b	160-180	P	TIY,PIY; charge state mapping
	EK&97a	163-183	P	TIY, PEPICO; b ; high res.(35 meV); PEPIPICO; bs
	EK&97b	162-172	P	TIY, PEPICO; fragmentation mechanisms; S^{3+} from (S2p, π*)
	EK&97c	163-183	P	TIY, PIY; PE3PICO; fragmentation mechanisms
	MB&98	162-174	P	resonant Auger; vibrational resolved; Renner-Teller; lifetime-vib'n interfer.
	FE&989	161-173	P	TIY; ionic frag; branching ratios; state selective fragmentation
	MG&99	160-195	P,T	TIY, STEX, resonant emission; atomic like ultra-fast decay of σ*
	FCB00	50-360	E	absolute; sum rule analysis
	KI00	172-178	T	ab initio; spin-orbital Breit-Pauli; molecular field; comp. of SO_2, COS, PF_3
CS_2	VZ71b	160-210	P	absence of barr. effects
	D72	160-200	P,R	absence of pot. barr. effects
	ZV72	160-200	P,R	absence of pot. barr. effects
	WB74e	156-202	E	absence of pot. barr. effects
	KGM77	162-172	P	Rydberg structure analysis
	MK80	162-172	P	vibnl struct.
	H87	150-190	P	total & partial ion yields, comp. to C1s, quadrupole
	CG&88	160-200	P,T	DES, bs, spectator dominates
	NH&88	160-195	R	comp. of ETS, CO_2, COS, CS_2 re location of σ*; decay of core states
	MH&89	140-280	E,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	HE90	178	P	DES; Auger-ion coinc.; ion KE
	AEB97b	160-180	P	TIY,PIY; charge state mapping
	AB98	164, 177	P	(Auger, ion) coinc.; comp. to spin-selective double charge transfer calc; fragmentation mech.; S_2^+ detected at π*
	KE&98	161-173	P	TIY, angle-resolved PEPICO; 30 meV fwhm; vibronic symmetry breaking; core hole localized in Rydbergs
	FE&99	161-173	P	TIY, state-selective fragmentation
	L99	165	P	full angle/energy/mass (64 ch) multi-detector; 0 dead-time multi-hit; PIY
C_2H_3NS	HTM89	150-285	E	(CH_3SCN), comp to CH_3NCS, vibrational ELS
C_2H_3NS	HTM89	150-285	E	(CH_3NCS), comp to CH_3SCN, vibrational ELS
C_2H_6OS	TB&88	160-280	E	$(CH_3)_2S$=O, DMSO, comp. to S1s

C_4H_4S	H86b	160-195	E,R	comp. to thiolane
	HHS86	160-255	E,P	(thiophene), S2p, S2s, S1s; comp. to sol. ml; MS-Xa calc; σ*(C-S)
	HE90	200-250	P	Auger-ion coinc. (but e-'s signal wrong); S2p/C1s comp.; sel. frag.
	HT&90	160-285	E	absolute, comp. to 3-alky-thiophenes
	HE91	(white)	P	(hv;e_{Auger},ion) coinc.; mass spectra at C1s, S2p with Auger
C_4H_8S	H86b	160-195	E,R	comp. to thiophene
	HHS86	160-255	E,P	(thiolane), S2p, S2s, S1s; σ*(C-S)
	HE91	(white)	P	(hv;e_{Auger},ion) coinc.; mass spectra at C1s, S2p with Auger
C_5H_6S	HT&90	150-285	E	absolute, 3-alkyl-thiophenes; no mod. of π* (cf. polymer cond.)
$C_6H_4N_2S$	HD&91	160-280	E	c-BzN_2S fused ring; comp. of S-N heterocyles, aromaticity
$C_6H_4N_2S_2$	HD&91	160-280	E	c-BzN_2S_2 fused ring; comp. of S-N heterocyles, aromaticity
$C_6H_4N_2S_3$	HD&91	160-280	E	c-BzN_2S_3 fused ring; comp. of S-N heterocyles, aromaticity
C_6H_9S	HT&90	150-285	E	absolute, 3-alkyl-thiophenes; no mod. of π* (cf. polymer cond.)
$C_8H_{13}S$	HT&90	150-285	E	absolute, 3-alkyl-thiophenes; no mod. of π* (cf. polymer cond.)
$C_{10}H_{17}S$	HT&90	150-285	E	absolute, 3-alkyl-thiophenes; no mod. of π* (cf. polymer cond.)
$C_{12}H_{21}S$	HT&90	150-285	E	absolute, 3-alkyl-thiophenes; no mod. of π* (cf. polymer cond.)
$C_{14}H_{24}S$	HT&90	150-285	E	absolute, 3-alkyl-thiophenes; no mod. of π* (cf. polymer cond.)
ClF_5S	AT&86b	165-215	P	absolute, comp. to SF_6 & SeF_6 (Se3p)
Cl_3PS	TKM82	162-173	P	X-alpha (MSM) calc., comp. to expt (K77)
	NS&98	150-240	P	absolute; PIY, TIY, PEPIPICO
D_2S	HS&94	160-240	P	30 meV fwhm; comp. of H_2S/D_2S; vibn'l struct.; val-Ryd. identified
F_2OS	T91	160-172	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
	BHK92	160-172	T	ab initio DSCF, large basis set calc.
F_2O_2S	T91	160-172	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
F_3NS	JKC99	164-194	P,T	relative; GSCF3; ion current; two LS-coupled states; comp. to OPF_3
F_3OS	NS&98	150-240	P	absolute; PIY, TIY, PEPIPICO
F_4S	BZ&67	140-188	P	relative, large background comp. to SF_6 S 2p
	BH87	160-250	E	S2p, S2s, S1s & F1s comp.
	KBH90	160-180	T	ab initio, comp. to BH87; revised σ*(S-F) assignments
	T91	160-172	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
	BHK92	160-172	E,T	ab initio DSCF, large basis set calc.
F_4OS	T91	160-172	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
F_6S	BZ&67	170-240	P	pot. barr. effects
	ZF67	170-300	P	photographic, pot. barr. effects, S 2s structure
	N70	130-300	T	pot. barr. effects, MO interpretation
	NM&71	150-240	P	photographic, pot. barr. effects, weak Rydberg structure
	BH&72	150-250	P	gas-solid comp., cont. res.
	D72	150-250	P,R	pot. barr. effects
	GGL72	160-250	T	ab initio calc., pot. barr. effects
	VZ72	170-230	P	absolute
	ZV72	170-260	P,R	pot. barr. effects
	SP&74	175-190	T	X-alpha (MSM) calc., cont. shape res.
	VK&74	175-210	T	cont. shape res., extended fine structure (EXAFS)
(SF_6 cont'd)	B76b	160-460	E	cont. shape res., extended fine structure (EXAFS)
	M76b	175-190	T	X-alpha (MSM) calc., cont. shape res.
	VK76	170-220	T	Green's function calc., pot. barr. effects, res. theory
	GKM77a	170-220	P	0.12eV FWHM, weak Rydberg structure
	H77b	170-190	T	HF improved VO; comp. to expt.
	HB78c	180-280	E	pot. barr. effects, Rydbergs, dipole forbidden transitions, S 2s
	HBW78	40-240	E	absolute, ionic fragmentation of cont. res.
	W80	220-290	E	extended fine structure (EXAFS), dissociative double ionisation
	BD&82	180-190	E,R	calibration (t_{2g}=184.54 eV)
	GN&83	180-200	P,T	comparison of core & valence cont. shapes

	SB84	184.54(5)	E	calibration standard($2p_{1/2}$->t_{2g})
	VA&85	130-175	P,R	comp. to BF_3, N_2, NO_3^-; KPF_6 (s); shape resonances
	AT&86b	165-215	P	absolute, comp. to SF_5Cl & SeF_6 (Se3p)
	H86a	170-186	E	74 eV final energy, new quadrupole state claimed
	TC86	180-210	T	local density calc, comp to expt (BH&82, HB78)
	FL&88	170-250	P	partial PI, shape resonant & multi-electron at e_g, no effect of t_{2g} res. on b, combined 1-e^-/multi-e^- model
	AT&89	160-270	P,T	relative, comp. to valence partial X-sect, SeF_6, "F_6"; X-alpha calc.
	KBH90	160-180	T	ab initio, comp. to SF_4 (BH87)
	NMA90	160-260	T	MSXa calc; order of res. identified; comp. to expt. (ZV71)
	SB90	160-240	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. barr's
	NMA91	160-210	T	absolute; DVXa calc; comp. to expt. (ZV71); H_2S
	T91	160-172	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
	TL91	170-180	P	relative; gas-sol. comp. in Rydberg region; crystal quality of sol. important (MS); 177.2,178.4 eV peaks (gas) 6 broad line (t_{1u} ?) in sol.
	BHK92	160-240	E,T	DSCF, comp. to expt (all edges)
	SU&92b	166-204	P	PIPICO yield spectra; Auger-ion coinc; t_{2g}/e_g PIPICO differ; new shake-up
	HS&93	170-215	P,T	high res (45 meV); comp. of exp; theory & Ryd. analysis; lineshapes; vibn'l structure of Ryd. analysed; IPs (180.27, 181.48)
	YML93	160-210	E	generalised osc. str.; large increase in rel. intensity of t_{1u} (K^2_{max}~6au)
	HH&95	68-214	E	2 kV impact; 1^o; parallel detector-phosphor-CCD described
	FT&95	165-210	E,T	dipole and non-dipole; 2 new quadrupole states; DSCF calc (non-relativistic)
	TF&95	165-210	E	GOS for all states, differences from YML93 explained
	FCM96	170-185	T	GOS, extrapolation to K^2=0, comp. to YML93
	FM&98	160-200	E	4 keV impact; (Auger,ion) coinc.; no bound SF_6^{++} states
	HE&98	150-280	E	absolute; S 2p and S 2s GOS
	ETH99	160-260	E	absolute; GOS; B-state strongest for $K^2 > 50$ au^{-2}; S 2s GOS
	EF&00	160-270	E	GOS; strong e→e quadrupole; confirms TF&95
	H00	165-210	E,R	extreme non-dipole, B-state largest
	SM&02	170-205	P	negative ion PIY; state interpretation; Rydberg region
	SR&02	165-205	P	DES vs PES; ERAMICO, vibration-dissociation correlation
F_{10} S_2	T91	160-172	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
H_2S	VZ71b	155-205	P	absence of pot. barr. effects
	ZV71	160-200	P,R	absence of pot. barr. effects
	D72	160-200	P,R	absence of pot. barr. effects
	HB72	160-175	P	photoelectric yield, absolute, Rydberg analysis IP (171.1, 172.2)
	ZV72	160-210	P,R	comp. to SO_2, CS_2 & SF_6, absence of pot. barr. effects
	R75	160-175	T	alternate assignment of HB72
	S75a,b	160-175	T	Z+1 analogy calc., alternate assignment of HB72
	S76a	160-175	T	Z+1 analogy, EICVOM
	SYD82	160-175	T	ab initio, absolute, comp. to expt (HB72)
(H_2S cont'd)	CCM88	170-260	T	ab initio, absolute, Stieltjes imag; discrete TV & OS, comp [HB72]
	NMA91	160-210	T	DV-Xa; comp. to expt. (ZV71)
	AA&92c	165-167	P	resonant autoionisation (DES); comp. of Cl_2, HCl, H_2S
	HS&94	160-240	P	30 meV fwhm; comp. of H_2S/D_2S; vibn'l struct.; val-Ryd. identified
	LB&95	160-220	T	MS-Xa; comp. of XH_n (X=Si,P,S,Cl)
	SA&95a	173-180	P	ultrafast decayof LM 2e excited state detected by HS^{L*} lines
	NN&97	164-167	P,T	ultrafast decay; time domain; 'core hole clock' (5.3 +/-1.5 fs)
	NS&97	164-167	P	ultra-fast decay; Auger; molecular split states of HS ($3s_{1/2}$-$1p_{3/2}$ = 90 meV)
	SA97	165	P	Auger resonant Raman; ultrafast decay to HΣ∗-H); no Raman narronwing in ion fragment lines; core hole decay as femtosecond clock
	EH99	160-240	E,T	absolute; transient from H_2S+B+SiO_2; comp of HBO, HBS, $H_3B_3O_3$

	FCB99	50-270	E	absolute; sum rule normalized
	H00	160-250	E,R	transient ISEELS; comp of HBO,HBS, H_2S
	KH&01	170-200	P,T	spin-orbit resolved; partial cross-sections; MSXα
	HE&01	160-240	E	absolute; transient ISEELS
O_2S	VZ71b	160-210	P,R	pot. barr. effects
	ZV71	160-210	P,R	pot. barr. effects
	D72	160-210	P,R	pot. barr. effects
	ZV72	160-215	P,R	pot. barr. effects
	KG&76	162-178	P	Rydberg analysis IP (174.8, 176.0)
	SMM79	164-167	T	ab initio calc., comp. to expt. (KG&76)
	KMN80a	160-210	P,T	ab initio calc., comp. to expt., pot. barr. effects
	SB&87	160-260	E	(55meV fwhm; comp to MCQD calc, PA (KG&76), S1s (BE85)
	TH&87	160-220	P	relative, no shape res. in b plot
	DH&89	165-185	P	negative (O^-) & positive (O^+, O_2^+) yields from S2p (-->SO^{2+} + O^-)?
	CZ&91	150-260	E	absolute; comp. to atomic & other; ion TOF MS (e; e+ion)
	T91	160-172	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
	GP&98	164-176	P	realtive; 30 meV; state sym. from – FC analysis; ΔE_{SO} = 1.20; O_h=0.095eV
	FT&99	163-180	P	TIY, TPES; TPEPICO; TPE2PICO; relative cross sections; PCI; Anisotropic ion ang. distribution; fragmentation; KERD; site-specific
	KI00	172-178	T	ab initio; spin-orbital Breit-Pauli; molecular field; comp. of SO_2, COS, PF_3
S_n	TGR99	154-194	P,T	n = 2-8 – sulfur aggregates; selected ion yields; PEPIPICO; fragmentation mechanisms
	TG&99	160-175	P	relative, TIY, PEPIPICO; large changes in discrete with cluster ion

<u>Sulfur 1s</u> (2470 eV)

$CCuHOS_2$	TV93	2.47-2.48	T	CuS_2COH; ab initio-SCF-EICVOM; pre-edge res. (π^*, σ^*_{O-O},σ^*_{S-S})
CF_8S	LD72	2.47-2.51	P	CF_3SF_5; pot. barr. effects
CH_2S_2	TV93	2.47-2.48	T	thio-formic acid; ab initio-SCF-EICVOM; pre-edge res.(π^*,σ^*_{O-O},σ^*_{S-S})
CH_4S	BE85	2.46-2.49	P	CH_3SH, equivalent core model, comp. to ETS
	DTH90	2.46-2.51	P	absolute; comp. to other RSH and RSR (σ^*(S-C)
	DTM91	2.46-2.49	P	comp. to ETS; σ^*(S-C) bond length correl.
	SDT92	2.46-2.49	T	SCF-CI (geometry) calc. of pot. energy curves; comp. to [DTH90]
	TV93	2.47-2.48	T	ab in.-SCF-EICVOM; pre-edge res.(π^*,σ^*_{O-O},σ^*_{S-S}), comp to DTH90
COS	PL84	2.46-2.49	P	comp. to emission, S2p (WB74) & calc, S1s/S2p shift=0.2-0.7eV
	NH&88	2.47-2.51	R	comp. of ETS, all edges for CO_2, COS & CS_2; σ^* loc.; hole decay
	MH&89	2.45-2.55	P,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	BA&96	2.45-2.50	P	average charge; pre-edge ioniz. by -10 eV
	AT&96b	2.46-2.51	P	relative, angle-resolved PIY; βs; Renner-Teller π^*; 10σ^* at 2474 eV
	AEB97a	2.45-2.51	P	partial ion yields; branching ratios; triple coinc. analysis
	EA&97	2.45-2.51	P	total and partial ion yields; average charge; triple coincidence det.
(COS cont'd)	MA&98	2.46-2.48	P,T	relative; abs. Emission comp; polarized XES; ab initio calc
	NTH99	2.45-2.50	P	TIY, PIY; PE3PICO; selective bond breaking
	HN02	2460	P,R	TPEPIPIPICO; high charge states
CS_2	PL84	2.46-2.49	P	comp. to emission, S2p (WB74) & calc, S1s/S2p shift=0.2-0.7eV
	BE85	2.45-2.55	P	relative
	NB87	2.47-2.51	P,R	comp. to Cl 2p, S 2p EELS (WB74); constant term values
	NH&88	2.47-2.51	R	comp. of ETS, all edges for CO_2, COS & CS_2; σ^* loc.; hole decay
	MH&89	2.45-2.55	P,T	absolute, ab initio, comp. of CO_2, COS & CS_2 - all edges
	FD&95	2.45-3.20	P,T	xafs; detailed MS analysis; very strong forward focussing
	BA&96	2.45-2.50	P	average charge; pre-edge ioniz. by -10 eV
	SL&96	2.50	P,R	PE3PICO; anisotropic angular dist. of ions; polarization effects
	AEB97	2.45-2.51	P	partial ion yields; branching ratios; triple coinc. analysis

	EA&97	2.45-2.51	P	total and partial ion yields; average charge; triple coincidence det.
	CB&01	2.42-2.52	P	Auger-ion coinc; site selective frag; comp. to SO_2
	HN02	2.460	P,R	PEPIPICO; high charge states from Auger cascade
C_2H_3NS	DTM91	2.46-2.49	P	CH_3SCN; comp. to ETS; σ*(S-C) bond length correl.
C_2H_3NS	DTM91	2.46-2.49	P	CH_3SNC; comp. to ETS; σ*(S-C) bond length correl.
C_2H_6OS	TB&88	2.46-2.51	P	$(CH_3)_2S$=O, DMSO, comp. to S2p,O1s,C1s
C_2H_6S	HBT89	2.46-2.51	P	$(CH_3)_2S$, comp. to $(CH_3)_2S_2$, σ*(S-S)
	DTH90	2.46-2.51	P	absolute; comp. to other RSH and RSR; σ*(S-C)
	DB&98	2.46-2.49	P	relative; ioniz. yield; low-lying σ*(Si-Si) level; correl. with ETS
C_2H_6S	DTM91	2.46-2.49	P	C_2H_5SH; comp. to ETS; σ*(S-C) bond length correl.
$C_2H_6S_2$	HBT89	2.46-2.51	P	$(CH_3)_2S_2$, comp. to $(CH_3)_2S$, σ*(S-S)
	DTH90	2.46-2.51	P	absolute; comp. to other RSH and RSR; σ*(S-C)
	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R; dependence of σ*(S-S), σ*(S-C) on R, n
	DB&98	2.46-2.49	P	relative; ioniz. yield; low-lying σ*(Si-Si) level; correl. with ETS
$C_2H_6S_3$	DB&98	2.46-2.49	P	Me-S_3-Me; ioniz. yield; low-lying σ*(Si-Si) level; correl. with ETS
C_4H_4S	H86b	2.47-2.50	P,R	(thiophene); comp. to thiolane
	HHS86	2.47-2.50	P	S2p, S2s, S1s; comp. to sol., ml; MS-Xa calc; σ*(C-S)
	PL86	2.46-2.50	P,T	absolute, fluorescence, STO-3G calc, IP=2477.6eV
	TK&92	2.46-2.49	P	gas comp. to multi- and monolayer; pol. dep.; π*, $\sigma^*_{Si\text{-}C}$ components in main res. identified; supports HHS86
	K02	2.46-2.49	P,TR	symmetry resolved, π* below σ*, review
C_4H_8S	H86b	2.47-2.50	P,R	(thiolane); comp. to thiophene
	HHS86	2.47-2.50	P	S2p, S2s, S1s; σ*(C-S)
$C_4H_{10}S$	DTH90	2.46-2.51	P	Et-S-Et; absolute; comp. to other RSH and RSR; σ*(S-C)
	DTM91	2.46-2.49	P	comp. to ETS; σ*(S-C) bond length correl.
$C_6H_4N_2S$	HD&91	2.46-2.51	P	BzN_2S fused ring; absolute; comp. to other edges; matches S2s
$C_6H_4N_2S_2$	HD&91	2.46-2.51	P	BzN_2S_2 fused ring; absolute; comp. to other edges; matches S2s
$C_6H_4N_2S_3$	HD&91	2.46-2.51	P	BzN_2S_3 fused ring; absolute; comp. to other edges; matches S2s
C_6H_6S	DTH90	2.46-2.51	P	C_6H_5SH, comp. to other RSH and RSR; σ*(S-C)
	DTM91	2.46-2.49	P	comp. to ETS; σ*(S-C) bond length correl.
	TY&91	2.46-2.50	P	relative; gas-solid comp.; σ*(S-C) less well-defined; Ryd. disappears; EXAFS stronger; no EXAFS analysis
$C_6H_{14}S_2$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R= iPr; dependence of σ*(S-S), σ*(S-C) on R, n
C_7H_8S	DTH90	2.46-2.51	P	$C_6H_5SCH_3$, comp. to other RSH and RSR; σ*(S-C)
	DTM91	2.46-2.49	P	comp. to ETS; σ*(S-C) bond length correl.
$C_8H_{14}S_2$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=2-butenyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_8H_{14}S_3$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=2-butenyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_8H_{18}S_2$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=n-butyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_8H_{18}S_3$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=n-butyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_8H_{18}S_4$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=n-butyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_8H_{18}S_2$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=t-butyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_8H_{18}S_3$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=t-butyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_8H_{18}S_4$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=t-butyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_{12}H_{10}S_2$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=phenyl; dependence of σ*(S-S), σ*(S-C) on R, n
$C_{12}H_{22}S_2$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=Me_2C=$CMeCH_2$-; depend. of σ*(S-S), σ*(S-C) on R, n
$C_{12}H_{22}S_3$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=Me_2C=$CMeCH_2$-; depend. of σ*(S-S), σ*(S-C) on R, n
$C_{12}H_{22}S_4$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=Me_2C=$CMeCH_2$-; depend. of σ*(S-S), σ*(S-C) on R, n
$C_{14}H_{14}S_2$	CH&97	2.46-2.49	P	$R(S\text{-}S)_n$-R, R=$C_6H_5CH_2$-; dependence of σ*(S-S), σ*(S-C) on R, n
$ClFO_2S$	HBT89	2.46-2.51	P	ionization yield, comp of SO_2Cl_2, SO_2FCl & SO_2F_2
	HT88	2.46-2.56	P	ionization yield, comp to SO_2Cl_2, SO_2FCl
ClF_5S	RB&92	2.4-3.1	P,T	relative; comp. to SF_6 & SCF-CI calc; EXAFS no S 3d participation

	BR&92	2.4-2.8	P	double core vacancy state (1s,2p); comp. of SF_5Cl, SF_6
	NM96	2.4-2.8	P,R	EXAFS; KL double excitation; compared to SF_6
Cl_2OS	HBT87	2.46-2.51	P	comp. to other S,Cl,O compounds, σ*(S-X)
Cl_2O_2S	HBT87	2.46-2.51	P	comp. to other S,Cl,O compounds, σ*(S-X)
	HT88	2.46-2.56	P	ionization yield, comp to SO_2Cl_2, SO_2FCl
	HBT89	2.46-2.51	P	ionization yield, comp of SO_2Cl_2, SO_2FCl & SO_2F_2
Cl_2S	CH86	2.46-2.77	P	relative, σ*(C-S), EXAFS
	HKR86	2.46-2.75	P	EXAFS, xanes
	HBT87	2.46-2.51	P	comp. to other S,Cl,O compounds, σ*(S-X)
	HT88	2.46-2.56	P	ionization yield, comp to SO_2Cl_2, SO_2FCl
Cl_2S_2	HBT87	2.46-2.51	P	comp. to other S,Cl,O compounds, σ*(S-X)
D_2S	HA&98c	2.46-2.49	P	relative; PIT, TIY; photofragmentation asymmetry
	DA&98c	2.46-2.49	P	TIY, PIY, neutral D observed; β for fragmentation
F_2OS	LD72	2.47-2.50	P	SF_2O; pot. barr. effects
	T91	2.46-2.48	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
	BHK92	2.46-2.48	P,T	DSCF, comp of all edges; spectrum from BH87 (err. report as SF_4)
F_2O_2S	LD72	2.47-2.50	P	SF_2O_2; pot. barr. effects
	BK74	2.48-2.50	P	pot. barr. effects
	HBT89	2.46-2.51	P	ionization yield, comp of SO_2Cl_2, SO_2FCl & SO_2F_2
	HT88	2.46-2.56	P	ionization yield, comp to SO_2Cl_2, SO_2FCl
	HBT89	2.46-2.51	P	ionization yield, comp of SO_2Cl_2, SO_2FCl & SO_2F_2
F_3PS	NTH99	2.45-2.50	P	TIY, PIY; PE3PICO; selective bond breaking
	T91	2.46-2.48	T	SCF, EICVOM; orbital char, comp. to expt & diss. att.
F_4S	BH87	2.48-2.50	P	SF_4; pot. barr. effects
	KBH90	2.48-2.50	T	ab initio, comp. to SF_6 & expt. (BH87), revised σ*(S-F) assignments
	BHK92	2.48-2.54	P,T	revised S1s spectrum (correction to BH87); DSCF, comp. of all edges
	T91	2.46-2.48	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
	BHK92	2.46-2.50	P,T	DSCF, update of BH87; correct S1s spectrum; comp of all edges
F_4OS	T91	2.46-2.48	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
F_6S	BM62	2.48-2.50	P	pot. barr. effects, σ*(S-F)
	LD66	2.47-2.90	P	pot. barr. effects, absolute, EXAFS
	D72	2.47-2.90	P,R	pot. barr. effects
	F72	2.48-2.55	T	pot. barr. effects, review
	GGL72	2.48-2.52	T	ab initio calc., pot. barr. effects
	BK73	2.49-2.51	P	Rydberg structure claimed
	BK74	2.48-2.50	P	pot. barr. effects
	B76b	2.48-2.78	E	extended fine structure (EXAFS)
	BH86	2.48-2.52	P	comp. to SF_4, σ*(S-F)
	FL&86	2.47-2.58	P	Auger & AI yields, cont. res. not all shape
(SF_6 cont'd)	THH87	2.47-2.52	P,T	XANES, EXAFS, multiple scattering analysis
	QL89	2.46-2.52	E,P	enhanced X-ray emission of SF_6 vs. H_2S & SO_2 at discrete a_{1g} peak
	TB&89	2.47-3.20	P.T	XANES, EXAFS, MS-calc; correction for inelastic scatt. of PE
	KBH90	2.48-2.50	T	ab initio, comp. to SF_4 (BH87)
	NMA90	2.47-2.58	T	MSXa calc; order of res. identified; comp. to expt. (ZV71)
	NMA91	2.47-2.49	T	absolute; DVXa calc; comp. to expt. (L75, BE85)
	T91	2.46-2.48	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
	BR&92	2.4-2.8	P	double core vacancy state (1s,2p); comp. of SF_5Cl, SF_6
	RB&92	2.45-2.80	P,T	1-e- & 2-e- excitation; ab initio calc; comp. of SF_6 & SF_5Cl; symmetry breaking; 3d Ryd & 3d val. orb. differ.; EXAFS (k_{max}=13Å^{-1})
	TH&92a	2.8-3.8	T,P	MS calc of EXAFS ampl. reduction factor; comp. of Br_2, $GeCl_4$, SF_6
	BR&95	2.48-2.55	P	laser generated (3ps) continuum; laser photodissociation
	RW&95	2.45-2.58	P	500 fs pump-probe; bleaching of t_{1u} resonance in first 10 ps; fast diss.
	NM96	2.4-2.8	P,R	EXAFS; KL double excitation; compared to SF_5Cl

	RG&96a	2.67-2.69	P,T	KL 2- exc.; CAS-MCSCF calc; (Z+2) interp.; comp. of H_2S, SO_2, SF_6
	RG&96b	2.4-2.8	P,T	absolute; KL 2- exc.; CAS-MCSCF calc; (Z+2) interpretation
	RW&96	2.45-2.58	P	picosecond resolved spectra; bleaching by terawatt lasers; summary of sub-nanosecond time-resolved X-ray absorption
	NL99	2.50-2.63	T	σ resonances in ionization continuum; l = 9 at 2550 eV
$F_{10}S_2$	T91	2.46-2.48	T	SCF, EICVOM; orbital char, comp. to expt & Diss. Att.
H_2S	LD66	2.47-2.50	P	absolute
	M71	2.47-2.52	P	photographic
	MS71	2.47-2.52	P	MO interpretation
	MS&73	2.47-2.52	T	semiempirical calc.
	L75a	2.46-2.49	P	Rydberg structure
	SYD82	2.46-2.50	T	ab initio, absolute, comp. to expt (L75a)
	BE85	2.46-2.52	P	equivalent core analogy, comp. to ETS res.
	CH86	2.46-2.50	P	relative, double excitation
	D86b	2.47-2.49	P	comp. of emission & absorption [L75a]; multivacancy effects
	ML&91	2.47-2.48	P	absorp. and polarised fluorescence; determ. of MO symmetry
	NMA91	2.47-2.48	T	DV-Xa; comp. to expt. (ZV71)
	BR&92	2.4-2.8	P,T	MC-SCF calc; improved singlet-triplet; double core vacancy states
	ML&94	2.473	P	ion yields at $3b_2$ resonance
	AHB96	1-15	P	triple coinc. (Auger,ion,ion) PEPIPICO; triple ioniz.
	AT&96a	2.46-1.51	P	relative; TIY; angle resolved; $3b_2/6a_2$ ΔE~0.15 eV; weak anisotropy
	NM96	2.66-2.72	P,R	KL double excitation; Rydbergs; 1.5% contribution
	RG&96a	2.67-2.69	P,T	KL 2- exc.; CAS-MCSCF calc; (Z+2) interp.; comp. of H_2S, SO_2, SF_6
	RG&96b	2.4-2.8	P,T	absolute; KL 2- exc.; CAS-MCSCF calc; (Z+2) interpretation
	DA&98c	2.46-2.49	P	TIY, PIY, neutral D observed; β for fragmentation
	HA&98c	2.46-2.49	P	relative; PIT, TIY; photofragmentation asymmetry
H_2S_2	TV93	2.47-2.48	T	ab initio-SCF-EICVOM; pre-edge res. (π^*, σ^*_{O-O},σ^*_{S-S})
O_2S	BM62	2.48-2.50	P	atomic charge analysis
	MB&72	2.47-2.49	P	pre-thresh. structure
	MS&73	2.47-2.49	T	semiempirical calc.
	KMN80a	2.47-2.49	T	ab initio calc., comp. to expt., pot. barr. effects
	ME&84	2.46-2.49	P	comp. free & 12% SO_2 in p-hydroquinone clathrate, sharper peaks, Z+1 analysis, comp.to ETS
	BE85	2.46-2.52	P	equivalent core analogy, comp. to ETS res.
	NB87	2.46-2.52	P,R	review, equivalent core analogy
	HT88	2.46-2.56	P	ionization yield, confirmed identical to absorption
	T91	2.46-2.48	T	SCF, EICVOM; orbital char, comp. to expt & diss. Attachment
(SO_2 cont'd)	SR&95	2.45-2.50	P	107 ppm in He; in-situ E-chem. cell; surf. studies (S/Cu re tarnishing); 0.8 eV fwhm; π^* narrower than BE85; 0.54 eV est. resol.; G = 0.59 eV
	RG&96a	2.67-2.69	P,T	KL 2- exc.; CAS-MCSCF calc; (Z+2) interp.; comp. of H_2S, SO_2, SF_6
	RG&96b	2.4-2.8	P,T	absolute; KL 2- exc.; CAS-MCSCF calc; (Z+2) interpretation
	AT&98	2.47-2.49	P,T	relative,TIY; KERD; angle resolved; state sym; GSCF3
	CB&01	2.42-2.52	P	Auger-ion coinc; site selective frag; comp. to CS_2
	K02	2.46-2.49	P,T,R	symmetry resolved, Renner-Teller; GSCF3; review
S_2	DO&96	2.46-2.50	P	relative; comp. of gas, sol. polymer - S_8 vs. S_n^- chain; comp. to O_2 ($^3S_g^-$ g.s.); bond-length correlation

<u>Tellurium 4d</u> (40 eV)

Te_2	STZ73	37-130	P	photographic
TeF_4	BST80	40-55	P,T	relative, Z+1 analogy used to predict valence spectrum of IF_4
TeF_6	SB90	40-90	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. barr.s

	PV&86	40-90	T	shape res.
	PV90	40-90	T	quasi-atomic treatment
Tellurium 4s, 4p (120, 172 eV)				
TeF_6	SB90	100-190	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. barr.s
Tellurium 3d (600 eV)				
TeF_6	SB90	580-680	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. barr.s
Tellurium 3p (830 eV)				
TeF_6	SB90	810-870	E	comp of TeF_6, SeF_6, SF_6; Z-dependence of pot. barr.s
Thorium 5d (110 eV)				
ThF_4	CP&80	70-150	P	photographic, broad res., comp. to Th (solid)
	CM&91	70-150	P,R	laser-plasma; comp. to Th(sol) and Th(vap)
Tin 4d (25 eV)				
$C_4H_{12}Sn$	SN&86	21-41	P	$Sn(CH_3)_4$; threshold e-;
	NSK88	28-41	P	thresh. e-, ionic frag. yields, comp. of $M(Me)_4$ M=Ge,Sn,Pb
	NS&90	28-41	P	ZEKE, PI yield, BR, comp. of $M(Me)_x$ frag. (Bi, Ga, Zn, Ge, Sn, Pb)
Tin 4p,4s (85,135)				
$C_4H_{12}Sn$	US&90b	60-260	P	partial ion yields, PIPICO
Tin 3d (510 eV)				
$C_4H_{12}Sn$	US&89a	400-600	P	tot. & part. IY; enhanced Si-C breakage; mult. ionis.; cascade
	US&90a	400-600	P	total & partial IY; enhanced Si-C breakage; mult. ionis.; cascade
Tin 2p (3900, 4180 eV)				
Cl_4Sn	GDT97	3.90-4.30	P,T	relative; TIY, MS-Xa; pot. barr.; $AsCl_3$, PCl_3, $GeCl_4$,$SnCl_4$ comp.; σ*(X-Cl) bond length correlation
Titanium 2p (460 eV)				
Br_4Ti	DF&94	450-470	T	ab initio CI; relaxed hole; comp. of TiX_4, X=F,Cl,Br
$C_5Cl_3H_5Ti$	W92	450-490	E,T	$CpTiCl_3$; comnp. to $TiCl_4$; EHMO
	WH93	450-490	E,T	abs.; comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
$C_{10}Cl_2H_{10}Ti$	WH93	450-490	E	Cp_2TiCl_2; abs.; comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
Cl_4Ti	W92	450-490	E,T	$TiCl_4$; absolute; EHMO; comp. to at.mult.-ligand field calc.
	WH93	450-490	E,T	abs.; comp. of Cp_xTiCl_{4-x}, x=0-2; diff '10Dq' at each edge
	DF&94	450-470	T	ab initio CI; relaxed hole; comp. of TiX_4, X=F,Cl,Br; comp. to WH93; t_2 < e; strong CI mixing
	HT&00	450-470	P	resonant X-ray emission; comp to WH93; high P – absorption saturated ?
F_4Ti	DF&94	450-470	T	ab initio CI; relaxed hole; comp. of TiX_4, X=F,Cl,Br

Titanium 1s (4966 eV)

Br_4Ti	DF&94	4.96-4.98	T	ab initio CI; relaxed hole; comp. of TiX_4, X=F,Cl,Br; strong 3d res.
Cl_4Ti	KH90	4.96-5.00	P	relative
	DF&94	4.96-4.98	T	ab initio CI; relaxed hole; TiX_4, X=F,Cl,Br; strong 3d res.; comp. to KH90
F_4Ti	DF&94	4.96-4.98	T	ab initio CI; relaxed hole; comp. of TiX_4, X=F,Cl,Br; strong 3d res.

Uranium 5d (120 eV)

UF_4	CM&80	70-145	P	photographic, comp. to U solid, shape res. -cont.? (see PC83)

Uranium 4d (3560 eV)

UCl_4	GE&89	3.53-3.62	P,T	absolute, comp. to UO_2 (calc.); MS-calc. of res.

Uranium 4p (4304 eV)

UCl_4	GE&89	4.28-4.37	P,T	absolute, comp. to UO_2 (calc.); MS-calc. of res.

Vanadium 2p,2s (520,630 eV)

C_6O_6V	TD&92a	500-660	P,E	$V(CO)_6$, absolute
Cl_3OV	DF&94	510-530	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); more coval. as Cl ÷ F
F_3OV	DF&94	510-530	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); more coval. as Cl ÷ F

Vanadium 1s (5465 eV)

Cl_3OV	DF&94	5.46-5.48	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); more coval. as Cl ÷ F
F_3OV	DF&94	5.46-5.48	T	ab initio CI; relaxed orb.;MO_xX_y (Ti,V,Cr,Mn); more coval. as Cl ÷ F

Xenon 4d, 4p (65, 145 eV)

XeC_{60}	PN93	60-140	P	absolute; comp. of atom and Xe in C_{60} cage; EXAFS
XeF_2	CH&73	50-160	P	absolute, gas-solid comp., ligand field core level splitting
	S74	66-73	P,R	review, ligand field core level splitting
	T88	60-130	T	X-a; val. partials at Xe 4d; effect of R(Xe-F) on cont. res.
XeF_4	CH&73	50-160	P	absolute, gas-solid comp., ligand field core level splitting
XeF_6	NHS74	50-170	P	absolute, evidence for octahedral symmetry

Zinc 3d (14 eV)

C_2H_6Zn	NS&90	13-18	P	$Zn(Me)_2$; threshold e-; ion yield and BR; comp. of MMe_x (M=Bi,Ge,Pb,Sn,Zn)

REFERENCES

ref. codes year of publication preceeded by:
initials of all authors (if <3) or intials of first two then &

if code is not unique, small a,b,c, ..distinguishes different

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A80 V.N. Akimov, Dissertation. Leningrad, 1980. (H_2O - O1s, NH_3 - N1s, CH_4 - C1s)

A96 M.Ya. Amusia, "Theory of Photoionization" in VUV and Soft X-ray Photoionization, U. Becker, D.A. Shirley, eds. (Plenum, NY, 1996) 1. (Ar1s, Mn3p, Xe4d)

A95 H. Aksela, J. Electron Spectrosc. 72 (1995) 235. (Kr3d,Xe4d)

AA84 H. Agren and R. Arneberg, Physica Scripta 30 (1984) 55. (CO-C1s,O1s)

AA&80 G.B. Armer, T. Aberg, J.C. Levin, B. Craseman, M.H. Chen, G.E. Ice and G.S. Brown, Phys. Rev. Lett. 54 (1980) 1142. (Xe2p)

AA&82 R. Arneberg, H. Agren, J. Muller and R. Manne, Chem. Phys. Lett. 91 (1982) 362. (N_2-N1s)

AA&84 R. Arneberg, H. Agren, J. Muller and R. Manne, Chem. Phys. 83 (1984) 53. (N_2-N1s)

AA&85 G.B. Armen, J. Aberg, J.C. Levin, B. Craseman, M.H. Chen, G.E. Ice and G.S. Brown, Phys. Rev. Lett 54 (1985) 1142.

AA&86a H. Aksela, S. Aksela, G.M. Bancroft, K.H. Tan and H. Pulkkinen, Phys. Rev A 33 (1986) 3867. (Xe4d)

AA&86b H. Aksela, S. Aksela, G.M. Bancroft, H. Pulkkinen and K.H. Tan Phys. Rev A 33 (1986) 3876. (Kr3d)

AA&87 S. Aksela, H. Aksela, M. Levasalmis, K.H. Tan and G.M. Bancroft, Phys. Rev A 36 (1987) 3449. (Kr3d)

AA&88 H. Aksela, S. Aksela, H. Pulkkinen, G.M. Bancroft and K.H. Tan, Phys. Rev A 37 (1988) 1798. (Ar2p)

AA&89a H. Aksela, S. Aksela, J. Tulkki, T. Aberg, G.M. Bancroft and K.H. Tan, Phys. Rev A 39 (1989) 3401. (Ne1s)

AA&89b H. Aksela, S. Aksela, H. Pulkkinen and A. Yagashita, Phys. Rev A 40 (1989) 6275. (Kr3d)

AA&90a H. Aksela, S. Aksela, H. Pulkkinen and O.P. Sairanen Phys. Rev A 41 (1990) 425. (Ar2p,Kr3d,Ne1s,Xe4d)

AA&90b H. Aksela, S. Aksela, O.P. Sairanen, M. Hotokka, G.M. Bancroft, K.H. Tan and J. Tulkki, Phys. Rev A 41 (1990) 6000. (HCl-Cl2p)

AA&92a H. Aksela, S. Aksela, M. Hotokka, A. Yagashita and E. Shigemasa, J. Phys. B 25 (1992) 3357 (HCl-Cl2p)

AA&92b H. Aksela, S. Aksela, A. Montybentta, J. Tulkki, E. Shigemasa, A. Yagashita and Y. Furusawa, Phys. Scripta T 41 (1992) 113 (Ar2p, Kr3d)

AA&92c H. Aksela, S. Aksela, O.P. Sairanen, A. Kivimaki, G.M. Bancroft and K.H. Tan, Phys. Scripta T 41 (1992) 122 (Cl_2,HCl-Cl2p; H_2S-S2p)

AA&94 H. Aksela, A. Ausmees, O.P. Siaranen, S.J. Osborne, A. Naves de Brito, A. Kivimaki, J. Jauhiainen, S. Svensson and S. Aksela, Phys. Rev. Lett. 73 (1994) 2031. (Xe4d)

AA&01 P. Andersen, T. Andersen, F. Folkmann, V.K. Ivanov, H. Kjeldsen and J.B. West, J. Phys. B 34 (2001) 2009. (Xe4d)

AB97 J.W. Au and C.E. Brion, Chem. Phys. 218 (1997) 87. (PCl_3 - P2p, Cl2p)

AB98 U. Alkemper and F. Von Busch, J. Electron Spectrosc. 93 (1998) 115. (CS_2 - S2p)

ABC75 M. Y. Amusia, N.B. Berezina and L.V. Chernysheva, Phys. Lett. A 51 (1975) 101. (Xe4d)

ABZ96 M.Y. Amusia, A.S. Baltenkov and G.I. Zhuravleva, J. Phys. B 29 (1996) L151. (Ar1s, K1s)

AB&95 L. Avaldi, P. Belotti, P. Bolognesi, R. Camilloni and G. Stefani, Phys. Rev. Lett. 75 (1995) 1915. (Xe4d)

AB&96 L. Avaldi, P. Bolognesi, R. Camilloni, E. Fainelli, R.A. Muttari and G. Stefani, Phys. Rev. A 54 (1996) 2930. (Xe4d)

ACB97 J.W. Au, G. Cooper and C.E. Brion, Chem. Phys. 215 (1997) 397. (PF_3 - P2p)

ACS90 L. Avaldi, R. Camilloni and G. Stefani, Phys. Rev. A 41 (1990) 134. (C_2H_2-C1s)

AC&76 M.Y. Amusia, N.A. Cherepkov, D. Zivanovic and V. Radojevic, Phys. Rev. A 13 (1976) 1466. (Li1s)

AC&90 M.Ya Amusia, L.V. Chernyshevo, G.F. Gribakin and K.L. Tsemekhman, J. Phys. B 23 (1990) 393 (Xe4d, Ba4d)

AC&93 P. d'Angelo, A. di Cicco, A. Filipponi and N.V. Pavel, Phys. Rev. A 47 (1993) 2055. (HBr,Br_2 - Br1s)

AC&94 H. Agren, V. Carravetta, O. Vahtras and L.G.M. Pettersson, Chem. Phys. Lett. 222 (1994) 75. (HCN, $CH_3(CH_2)_nCN$, n=0,1,2,5,10)

AC&95 H. Agren, V. Carravetta, O. Vahtras and L.G.M. Pettersson, Phys. Rev B 51 (1995) 17,848. (C_nF_{2n+2}, n=2,4,6,8,10 - C1s, F1s)

AC&00a M.Ya. Amusia, N.A. Cherepkov, L.V. Chernysheva annd S.T. Manson, J. Phys. B 33 (2000) L37. (Xe4d)

AC&00b M.Ya. Amusia, N.A. Cherepkov, L.V. Chernysheva annd S.T. Manson, Phys. Rev. A 61 (2000) 020701. (I4d)

AC&00c R. D'Arcy, J.T. Costello, E.T. Kennedy, G. McGuiness, J.P. Mosnier and G. O'Sullivan, J. Phys. B 33 (2000) 1383. (Sb4d)

AC&01 M. Alagia, M. Coreno, M. de Simone, R. Richter and S. Stranges, J. El. Spec. 114-116 (2001) 85. (O1s; O_2 – O1s)

AC&02 M.Ya. Amusia, L.V. Chernysheva, V.K. Ivanov and S.T. Manson, Phys. Rev. A 65 (2002) 032714. (I4d)

ADB97 U. Alkemper, J. Doppelfield and F. von Busch, Phys. Rev. A 56 (1997) 2741. (Ar1s)

ADI83 Y.A. Amusia, V.K. Dolmatov and V.K. Ivanov, Sov. Phys. JETP 58 (1983) 67 (Cr3p)

ADM90 M.Y. Amusia, V.K. Dolmatov and M.M. Mansurov, J. Phys. B 23 (1990) L491. (Mn3p)

AD&94 L. Avaldi, G. Dawben, R. Camilloni, G.C. King, M. Roper, M.R.F. Siggel, G. Stefani and M. Zitnik, J. Phys. B 27 (1994) 3953. (Ar2p)

AD&99 D.P. Almeida, G. Dawber, G.C. King and B. Palasthy, J. Phys. B 32 (1999) 3157. (CO – C1s)

AD&01 D.P. Almeida, G. Dawber, S.E. Michelin and G.C. King, Chem. Phys. 269 (2001) 159. (N_2 – N1s)

AEB97a U. Ankerhold, B. Esser and F. von Busch, J. Phys. B 30 (1997) 1207. (CS_2, COS - S1s)

AEB97b U. Ankerhold, B. Esser and F. von Busch, Chem. Phys. 220 (1997) 393. (Ar2p; CS_2, COS - S2p)

AF&92 U. Arp, F. Federnam, E. Kallne, B. Sonntag and S.L. Sorensen, J. Phys. B 25 (1992) 3747 (Mn2p)

AG&69 V.C. Afrosimov, Yu.S. Gordeev, Y.M. Lavrov and S.G. Schelinin, Sov. Phys. JETP 28 (1969) 821. [Zh. Eksp. Teor. Fiz. 55 (1968) 1569]. (Ar2p, Kr3d, Xe4d)

AHB96 U. Alkemper, R. Hornig and F. von Busch, J. Phys. B 29 (1996) 35. (CS_2-S1s)

AHG93 E. Apen, A.P. Hitchcock and J.L. Gland, J. Phys. Chem. 97 (1993) 6859. ($C_3H_3N_2$, $C_3H_3N_3$, C_5HN_4 - C1s, N1s)

AH&91 L. Avaldi, R.I. Hall, G. Dawber, P.M. Rutler and G.C. King, J. Phys. B 24 (1991) 427. (Kr3d, Xe4d)

AH&99 A. Ausmees, A. Hahlin, S.L. Sorensen, S. Sundin, I. Hjelte, O. Bjorneholm and S. Svensson, J. Phys. B 32 (1999) L197. (Xe4d)

AI78 M.Y. Amusia and V.K. Ivanov, Phys. Lett. A 65 (1978) 217. (Xe3d,4d)

AIC81 M.Y. Amusia, V.K. Ivanov and L.V. Chernysheva, J. Phys. B 14 (1981) L19. (Mn3p)

AIK81 M.Y. Amusia, V.K. Ivanov and V.A. Kupchenko, J. Phys. B 14 (1981) L667. (Ar1s)

AI&94 U. Arp, K. Iemura, G. Kutlick, M. Meyer, T. Nagata, M. Sacchi, B. Sonntag, S. Yagi and A. Yagashita, J. Phys. B 27 (1994) 3389. (Cu2p)

AI&95 U. Arp, K. Iemura, G. Kutlick, T. Nagata, S. Yagi and A. Yagashita, J. Phys. B 28 (1995) 225. (Cr2p)

AI&99 U. Arp, K. Iemura, G. Kutluk, T. Nagata, S. Yagi and A. Yagashita, J. Phys. B 32 (1999) 1295. (Xe3d, Cs3d, Ba3d)

AKK88 Z. Altun, M. Kutzner and H.P. Kelly, Phys. Rev A 37 (1988) 4671. (Xe4d)

AK&94 S. Aksela, A. Kivimaki, A. Naves de Brito, O.-P. Sairanen, S. Svensson and J. Vayrynen, Rev. Sci. Inst. 65 (1994) 831. (Ar2p, Kr3d)

AK&95a J.I. Adachi, N. Kosugi, E. Shigemasa and A. Yagashita, J. Chem. Phys. 102 (1995) 7369. (N_2O-N1s,O1s)

AK&95b I. Arcon, A. Kadre, M. Stuhec, D. Glavic-Cindro and W. Drube, Phys. Rev. A 51 (1995) 147. (Xe2p)

AK&95c S. Aksela, A. Kivimaki, O.P. Sairanen, A. Naves de Brito, E. Nommiste and S. Svensson, Rev. Sci. Inst. 66 (1995) 1621. (Kr3d, Ar2p, N_2-N1s)

AK&96a J. Adachi, N. Kosugi, E. Shigemasa and A. Yagashita, J. Phys. Chem. 100 (1996) 19783. (CO_2 - C1s)

AK&96b J. Adachi, N. Kosugi, E. Shigemasa, A. Yagashita and P. Hatherly, J. Electron Spectrosc. 79 (1996) 491. (N_2O - N1s)

AK&97a J. Adachi, N. Kosugi, E. Shigemasa and A. Yagashita, J. Chem. Phys. 107 (1997) 4919. (CO_2, COS, CS_2 -

C1s)

AK&97b H. Aksela, M. Kivilompolo, E. Nommiste and S. Aksela, Phys. Rev. Lett. 79 (1997) 4970. (Kr3d, Xe4d)

AJ&97a J.N. Anderson, U. Johansson, R. Nyholm, S.L. Sorensen and M. Wiklund, MAX report (1997)180. (CH_3OH – C1s, O1s)

AJ&97b J.N. Anderson, U. Johansson, R. Nyholm, S.L. Sorensen and M. Wiklund, MAX report (1997)182. (C_2H_4 , C_4H_6 – C1s)

ALS95 G.B. Armen, J.C. Levin and I.A. Sellin, Phys. Rev. A 53 (1996) 772. (Ar1s)

AL&87 H. Aksela, R. Lakanen, S. Aksela, O.P. Sairanen, A. Yagashita, M. Meyer, Th. Prescher, E. von Raven, M. Richter and B. Sonntag, Phys Rev A 38 (1988) 3395. (Rb3d)

AL&93 U. Arp, B.M. Lagutin, G. Materlick, I.D. Petrov, B. Sonntag and V.L. Sukhorukov, J. Phys. B 26 (1993) 438. (Ca1s, Cr1s, Cu1s, Mn1s)

AL&97 U. Arp, T. LeBrun, S.H. Southworth, M.A. MacDonald and M. Jung, Phys. Rev. A 55 (1997) 4273. (Ar1s)

AM97 V.G. Asolkar and C. Monde, Ind. J. Phys. A 71 (1997) 47. (CH_xF_{4-x},x=0-4 - C1s)

AMK97 D.P. Almeida, S.E. Michelin and T. Kroin, ICPEAC Proceedings (1997)

AM&90 U. Arp, G. Materlick, M. Richter and B. Sonntag, J. Phys. B 23 (1990) L811. (Ce2p, Er2p, Gd2p, Sm2p, Yb2p)

AM&02 J. Adachi, S. Motoki, N.A. Cherepkov and A. Yagishita, J. Phys. B 35 (2002) 5023. (CO_2 – C1s)

AN&95 S. Aksela, E. Nommiste, J. Jouhiainen, E. Kukk, J. Karvonen, H.G. Berry, S.L. Sorensen and H. Aksela, Phys. Rev. Lett. 75 (1995) 2112. (C_{60} - C1s)

AO&95 A. Ausmees, S.J. Osborne, R. Mobery, S. Svensson, S. Aksela, O.P. Siaranen, A. Kivimaki, A. Naves de Brito, E. Nommiste, J. Jauhiainen, and H. Aksela , Phys. Rev. A 51 (1999) 855. (Xe4d)

AP74 L.V. Azaroff and D.M. Pease, *X-ray Absorption Spectroscopy*, Ch 6 in *X-ray Spectroscopy* (L.V. Azaroff, ed.) (1974, McGraw-Hill,NY) (review)

AP88 F.X. Araujo and D. Petrini, J. Phys. B 21 (1988) L117. (Na2s)

AP&82 M.Y. Amusia, A.A. Pavlychev, A.S. Vinogradov, D.E. Onopko and S. A. Titov, Opt. Spectrosc 53 (1982) 91 [Opt.Spectrosk 53 (1982) 157] (SiF_4-Si2p; CF_4-C1s)

AR&89 D. Arvanitis, H. Rabus, L. Wenzel and K. Baberschke, Z. Phys. D 11 (1989) 219. (C_2H_2, C_2H_4, C_2H_6 - C1s)

ASW75 H. Agren, S. Svensson and U.I. Wahlgren, Chem. Phys. Lett. 35 (1975) 336. (H_2O)

AS&88 S. Aksela, O.P. Sairanen, H. Aksela, G.M. Bancroft and K.H. Tan, Phys. Rev. A 37 (1988) 2934. ($SiCl_4$ - Si2p, Cl2p)

AS&97 G.B. Armen, H. Southworth, J.C. Levin, U. Arp, T. LeBrun and M.A. MacDonald, Phys. Rev. A 56 (1997) R1079. (Xe2p)

AT&86a S. Aksela, K.H. Tan, H. Aksela and G.M. Bancroft, Phys. Rev. A 33 (1986) 258 (SiF_4-Si2p)

AT&86b B.M. Addison, K.H. Tan, G.M. Bancroft and F. Cerrina, Chem. Phys. Lett. 129 (1986) 468. (SF_6, SF_5Cl - S2p; SeF_6 - Se3p)

AT&89 B.M. Addison-Jones, K.H. Tan, B.W. Yates, J.N. Cutler and G.M. Bancroft, J. Electron Spect. 48 (1989) 155. (SF_6 - S2p)

AT&96a J. Adachi, Y. Takata, N. Kosugi, A. Hiraya, E. Shigemesa, A. Yagashita and Y. Kitajima, Photon Factory Report (1996) 15. (COS - S1s)

AT&96a J. Adachi, Y. Takata, N. Kosugi, A. Hiraya, E. Shigemesa, A. Yagashita and Y. Kitajima, Photon Factory Report (1996) 14. (H_2S - S1s)

AT&98 J. Adachi, Y. Takata, N. Kosugi, E. Shigemesa, A. Yagashita and Y. Kitajima, Chem. Phys. Lett. 294 (1999) 559. (SO_2 - S1s)

AVC95 H. Agren, O. Vahtras and V. Carravetta, Chem. Phys. 196 (1995) 47. (C_6H_6, $C_{10}H_8$, $C_{10}H_{10}$, $C_{14}H_{10}$, $C_{16}H_{10}$, $C_{18}H_{12}$ - C1s)

AVZ82a V.N. Akimov, A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. 53 (1982) 63 [Opt. Spectrosk. 53 (1982) 109]. (N_2,NO-N1s; NO,O_2-O1s)

AVZ82b V.N. Akimov, A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. 53 (1982) 280 [Opt. Spectrosk. 53 (1982) 476] (H_2O-O1s, NH_3-N1s)

AVZ82c V.N. Akimov, A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. 53 (1982) 548 [Opt. Spectrosk. 53 (1982) 918]. (SO_2-O1s)

AVZ88 V.N. Akimov, A.S. Vinogradov and A.V. Zhadenov, Opt. Spectrosc. 65 (1988) 210 [Opt. Spectrosk. 65 (1982) 349]. (N_2, NH_3 - N1s)

AV&85 V.N. Akimov, A.S. Vinogradov, A.A. Pavlychev and V.N. Sivkov, Opt. Spectrosc. (USSR) 59 (1985) 206. [Opt. Spectrosk. 59 (1985) 342. (C_6H_6, $C_6H_5CH_3$, $C_6H_5C_2H_3$ - C1s; C_5H_5N - C1s,N1s)

AWS87 C. Angonoa, O. Walter and J. Schirmer, J. Chem. Phys. 87 (1987) 6789. (CO-C1s)

AY&96 H. Agren, L. Yang, V. Carravetta and L.G.M. Pettersson, Chem. Phys. Lett. 259 (1996) 21. (O_2 -O1s)

B18 G. Brogren, Nova Acta. Reg. Sci. Uppsaliensis 14 (1918) No. 4. (Nels)

B54 J. Backovsky, Czech. J. Phys. 4 (1954) 150. (Nels)

B76a S. Bodeur, J. Appl. Phys. 47 (1976) 4911. (O_2-O1s)

B76b R.A. Bonham, in *Momentum Wavefunctions*, AIP Conf. Proc. 86 (1976) 70. (SF_6 - S2p, F1s, S1s)

B79 C.F. Bunge, Phys. Rev. A 19 (1979) 936. (Li1s)

B80 F.C. Brown, 'Inner-shell Threshold Spectra', Ch. 4, *Synchrotron Radiation Research*, Winnick & S. Doniach (eds.) (Plenum, NY, 1980) (Ar1s, Ne1s, Cl_2-Cl1s, N_2-N1s - review)

B81 A. Bianconi, EXAFS for Inorganic Systems (DL/SCI/R17) Proc. Daresbury Study Weekend (March,1981) 13. (C_2H_2,C_2H_4,CF_4-C1s,N_2O-N1s)

B82a C.E. Brion, Physics of Electronic and Atomic Collisions, (Proc. of XII ICPEAC, Tennessee, 1981), S. Datz, ed. (North-Holland, 1982). (CO_2-C1s, HF,F_2-F1s, N_2O-N1s - review)

B82b A. Bianconi, in *EXAFS and Near Edge Structure*, A. Bianconi, L. Incoccia and S. Stipcich, eds., (Springer-Verlag, Berlin, 1983) 118. (C_2H_2, C_2H_4 - C1s)

B85 C.E. Brion, Com. At. Mol. Phys. 16 (1985) 249. (review, N_2-N1s, SO_2-O1s)

B97 H.G. Barry, AIP Conf. Proc. 392 (1997) 511. (C_{60} - C1s)

B00a M.A. Bautista, J. Phys. B 33(2000) 71. (Fe2p)

B00b M.A. Bautista, J. Phys. B 33(2000) L419. (Fe2p, Fe1s)

BAK93 J. Boyle, Z. Altun, and H.P. Kelly, Phys. Rev. A 47 (1993) 4811. (W4f)

BA&86 G.M. Bancroft, S. Aksela, K.H. Tan, B.W. Yates, L.L. Coatsworth and J.S. Tse, J. Chem. Phys. 84 (1986) 5. (SiF_4-Si2p)

BA&94 M.A. Baig, M. Akram, S.A. Bhatti, K. Sommer and J. Hormes, J. Phys. B 27 (1994) 1693. (Cd4d)

BA&95 H.G. Berry, Y. Azuma, P.L. Cowan, D.S. Gemmell, T. LeBrun, T. LeBrun and M. Y. Amusia, Nucl. Inst. Meth. B 98 (1995) 25. (Ar1s, K1s)

BA&96 F. von Busch, U. Ankerhold, S. Drees and B. Esser, J. Phys. B 29 (1996) 5343. (Ar2p, Ar1s; Xe2p; CS_2, COS - S1s)

BA&01 P. Bolognesi, L. Avaldi, M.C.A. Lopes, G. Dawber, G.C. King, M.A. MacDonald, C. Villani, and F. Tarantelli, Phys. Rev. A 64(2001) 012701. (Kr3d, Xe4d)

BB84 S. Bodeur and R. Barchevitz, Sol. St. Comm. 49 (1984) 11. (O_2-O1s)

BB87 E. Bernieri and E, Burattini, Phys. Rev. A 35 (1987) 3322 (Kr1s)

BB89 J.I. Bolick and M.S. Banna, Phys. Rev. A 40 (1989) 2756. (Xe4d)

BB91 R.S. Barbieri and R.A. Bonham, Phys. Rev. A 44 (1991) 7361 (Ne1s)

BB92 R.S. Barbieri and R.A. Bonham, Phys. Rev. A 45 (1992) 7929 (N_2-N1s)

BB01a K.A. Berrington and C. Balance, J. Phys.B 34 (2001) L383. (Fe3p)

BB01b K.A. Berrington and C. Balance, J. Phys.B 34 (2001) 2697. (Fe3p)

BBB78 F.C. Brown, R.Z. Bachrach and A. Bianconi, Chem. Phys. Lett. 54 (1978) 425. (CH_4, CH_3F, CH_2F_2, CHF_3, CF_4 - C1s)

BBB01 C P Ballance, N R Badnell and K A Berrington, J. Phys. B 34 (2001) 3287. (Fe2p)

BBP77 W. Butscher, R.J. Buenker and S.D. Peyerimhoff, Chem. Phys. Lett. 52 (l977) 449. (N_2)

BBS91 H.M. Boechat-Roberty, C.E. Bielschowsky and G.G.B. de Souza, Phys. Rev A 44 (1991) 1694. (CO_2 - C1s)

BBT90 J.D. Bozek, G.M. Bancroft and K.H. Tan, Chem. Phys. 145 (1990) 131. ($Si(CH_3)_xF_{4-x}$, x=0-4, Si2p,2s)

BB&79 D.M. Barrus, R.L. Blake, A.J. Burek, K.C. Chambers and A.L. Pregenzer, Phys. Rev. A 20 (1979) 1045. (CO_2, O_2, CO, N_2O - O1s)

BB&80 A. Barth, R.J. Buenker, S.D. Peyerimhoff and W. Butscher, Chem. Phys. 46 (1980) 149. (C_2H_2, C_2H_4 - C1s)

BB&85 H.O. Beckman, W. Braun, H.W. Joachim, E. Ruhl and H. Baumgartel, Chem. Phys. Lett. 121 (1985) 499. ($C_2H_{4-x}F_x$, x=0,4 - C1s)

BB&88 C.E. Bouldin, G. Bunker, D.E. McKeown, R.A. Forman and J.J. Ritter, Phys. Rev. B 38 (1988) 10816. ($GeCl_4$, $GeClH_3$, GeH_4 - Ge1s)

BB&91 C. Brechignac, M. Broyer, Ph. Cahuzac, M. de Frutos, P. Labastie and J.Ph. Raux, Phys. Rev. Lett. 67 (1991) 1222. (Sb_n, n=4-16, Sb4d)

BB&00 O.Bjorneholm, M. Bassler, A. Ausmees, I. Hjelte, R. Feifel, H. Wang, C. Miron, M.N. Piancastelli, S.Svensson, S.L. Sorensen, F. Gel'mukhanov and H. Agren, Phys. Rev. Lett. 84 (2000) 2826. (O_2 – O1s)

BC81 A. Barth and L.S. Cederbaum, Phys. Rev. A 23 (1981) 1038. (many-body theory of core-excitations)

BC94 C. Bréchignac and J.P. Connerade, J. Phys. B 27 (1994) 3795. (Sb_5 - Sb4d; Ba3d, Sm3d)

BC&80 M. Breinig, M.H. Chen, G.E. Ice, F. Parante, B. Crasemann and G.S. Brown, Phys. Rev. A 22 (1980) 520. (Ar1s)

BC&86 J.M. Bizau, D. Cubaynes, P. Gerard, F.J. Wuilleumier, J.L. Picque, D.L. Ederer, B. Carre and G. Wendin, Phys. Rev. Lett. 57 (1986) 306.(Ba 5d)

BC&89 J.M. Bizau, D. Cubaynes, P. Gerard and F.J. Wuilleumier, Phys. Rev. A 40 (1989) 3002. (Ba 5d)

BC&92 G.R. Burton, W.F. Chan, G. Cooper and C.E. Brion, Chem. Phys. 167 (1992) 349. (CH_3OH - C1s)

BC&94 G. Burton, W.F. Chan, G. Cooper and C.E. Brion, Chem. Phys. 181 (1994) 147. (CCl_4-Cl2p, 2s)

BD93 C.E. Blount and D.M. Dickinson, J. Electron Spectrosc. 61 (1993) 367. (CO_2 - C1s)

BDW79 A.L. Bennani, A. Duguet and H.F. Wellenstein, Chem. Phys. Lett. 60 (1979) 405. (CO_2 - C1s,O1s)

BD&82 C.E. Brion, S. Daviel, R.N.S. Sodhl and A.P. Hitchcock, Int. Conf. on X-ray and Atomic Inner-Shell Physics, AIP Conf. Proc. 94 (1982) 429. (review of ISEELS - HF, F_2, NF_3 - F1s; Ne1s; N_2, NF_3 - N1s; CO-C1s,O1s; SF_6-S2p, F1s)

BD&85 M.J. Besnard, G. Dujardin, L. Hellner, S. Leach and D. Winkoun, LURE report (1985) 48. (CH_3I-I4d)

BD&92 J. Bruneau, D. Desenne, J.P. LeBreton, M. Louis-Jacque, C. Chenais-Popovics, C.A. Back, P. Renaudin and J.C. Gauthier, J. Phys. B 25 (1992) 5271. (Mg1s)

BE85 S. Bodeur and J.M. Esteva, Chem. Phys. 100 (1985) 415. (H_2S, CS_2, CH_3SH, SO_2 - S1s)

BE&89 C. Blancard, J.M. Esteva, R.M. Karnatak, J.P. Connerade, U. Kuetgens and J. Hormes, J. Phys. B 22 (1989) L575. (Tm3d)

BE&91 E. Bouisset, J.M. Esteva, R.C. Karnatak, J.P. Connerade, A.M. Flank and P. Lagarde, J. Phys. B 24 (1991) 1609. SiO - Si1s)

BF&79 W. Butscher, H. Friedrich, P. Rabe, W.H.E. Schwarz and B. Sonntag, Chem. Phys. Lett. 64 (1979) 360. (SiH_4 - Si2p)

BF&87 S. Bodeur, J.L. Ferrer, I. Nenner, P. Millie, M. Benfatto and C.R. Natoli, J. Phys. 48 (1987) C9-1117. ($SiCl_4$ - Si1s, Cl1s)

BF&93 S. Brennan, P.H. Fuoss, D.W. Kisker, F.J. Lamelas, P. Imperatori, G.B. Stephenson, J. Tsao, A. Zangwill and T. Kuech, Epitaxial Growth Symposium Proc. (M.R.S.) (1993) 165. (GaAs - Ga 1s, As 1s)

BF&95a O. Björnehlm, F. Federmann, C. Larsson, U. Hahn, A. Rieck, S. Kakar, T. Möller, A. Beutler and F. Fössing, Rev. Sci. Inst. 66 (1995) 1732. (Ne_n - Ne1s)

BF&95b O. Björneholm, F. Federmann, F. Fössing and T. Möller, Phys. Rev. Lett. 74 (1995) 3017. (Ar, Ar_n - Ar2p)

BF&95c A. von den Borne, F. Federmann, M. Klee and B. Sonntag, J. Phys. B 28 (1995) 2591. (Ba4d)

BF&96 O. Björneholm, F. Federmann, F. Fössing, T. Möller and P. Stampfli, J. Chem. Phys. 104 (1996) 1846. (Ar_n - Ar2p)

BF&99 O. Björneholm, F. Federmann, S. Kakar, and T. Möller, J. Chem. Phys. 111 (1999) 546. ($(H_2O)_n$ – O1s)

BF&02 H.M. Boechat-Roberty, J.D. Freitas, D.P. Almeida and G.G.B. de Souza , J. Phys. B 35 (2002) 1409. (Xe4d)

BG&87 J.M. Bizau, P. Girard, F.J. Willeumier and G. Wendin, Phys. Rev. A 36 (1987) 1220 (Ca3p)

BG&91 S.M. Bharathi, A.M. Grisogono, A. Lahman-Bennani, R. Pascual and E. Weigold, J. El. Spec. 53 (1991) 271. (C_6H_6 - C1s)

BH81 C.E. Brion and A. Hamnett, *Excited States in Chemical Physics*, part 2. J.W. McGowan, ed. (1981, Wiley) p. 1. (CF_4-C1s,F1s; N_2-N1s, CO-C1s)

BH87 S. Bodeur and A.P. Hitchcock, Chem. Phys. 111 (1987) 467. (SF_4-S2p,S2s,F1s; SF_4,SF_6-S1s, S2p, S2s, F1s)

BHK92 S. Bodeur, A.P. Hitchcock and N. Kosugi, Chem. Phys. 162 (1992) 293. (SF_4, SF_2O - S1s, F1s, S2p, S2s)

BH&72 D. Blechschmidt, R. Haensel, E.E. Koch, U. Nielsen and T. Sagawa, Chem. Phys. Lett. 14 (1972) 33. (SF_6 - S2p)

BH&86 U. Becker, R. Holzel, H.G. Kerkhoff, B. Langer, D. Szostak and R. Wehlitz, Phys. Rev. Lett. 56 (1986) 1455. (CO-C1s)

BIB93 R.A. Bonham, M. Inokuti and R.S. Barbieri, J. Phys. B 26 (1993) 3363. (N_2-N1s)

BI&85 C.E. Brion, Y. Iida, F. Carnovale and J.P. Thomson, Chem. Phys. 98 (1985) 327. (HBr-Br3d)

BK73 R.L. Barinskii and I.M. Kulikova, J. Struct. Chem. 14 (1973) 335. [Zh. Struk. Khim. 14 (l973) 372]. (SF_6 - S1s)

BK74 R.L. Barinskii and I.M. Kulikova, Bull. Acad. Sci. USSR Phys. Ser. 38 (1974) 16 [Izv. Akad. Nauk. SSSr Ser.

Fiz. 38 (1974) 444]. (SF_6,SOF_2-S1s; NF_3-N1s; BCl_3,BF_3-B1s)

BKL73 P.S. Bagus, M. Krauss and R.E. LaVilla, Chem. Phys. Lett. 23 (1973) 13. (CH_4)

BKM88 J. Brilly, E.T. Kennedy and J.P. Mosnier, J. Phys. B 21 (1988) 3685. (Al^{2+} - Al2p)

BK&86 U. Becker, H.G. Kerkoff, D.W. Lindle, P.H. Kobrin, T.A. Ferrett, P.A. Heimann, C.M. Truesdale and D.A. Shirley, Phys. Rev. A 34 (1986) 2858. (Eu4d)

BK&87 U. Becker, H.G. Kerkoff, M. Kupsch, B. Langer, D. Szostak and R. Wehlitz, J. Phys. 48 (1987) C9-497. (Xe3d,4d)

BK&93 S. Baier, U. Koble, T. Luhmann, M. Martins, M. Richter and P. Zimmermann, J. Phys. B 26 (1993) 4091. (Er4d, Ho4d, Tm4d)

BL93 G. Bandaroge and R.R. Lucchese, Phys. Rev. A 47 (1993) 1989. (CO - C1s)

BL97a S.K. Bolting and R.R. Lucchese, Phys. Rev. A 56 (1997) 3666. (CO - C1s)

BL97b N. Berrah and B. Langer, Comm. At. Mol. Phys. 33 (1997) 325. (Xe4d)

BL&98 B.H. Boo, Z. Liu, S.Y. Lee and I. Koyano, J. Phys. Chem. 102 (1998) 8261. ($SiBr_4$ – Si2p, Br3d)

BM62 R.L. Barinskii and B.A. Malyukov, J. Struct. Chem. 3 (1962) 327. [Zh. Struk. Khim. 3 (1962) 343]. (SF_6 - S1s)

BM95 U. Becker and A. Menzel, Nucl. INst. Meth. B 99 (1995) 68. (CO - C1s; HCl - Cl2p)

BMN90 S. Bodeur, P. Millie and I. Nenner, Phys. Rev. A 41 (1990) 252. (SiX_4, X = H, D, F, Cl, Br, CH_3, C_2H_5, OCH_3, OC_2H_5 - Si1s)

BMT88 A. Benitez, J.H. Moore and J.A. Tossell, J. Chem. Phys. 88 (1988) 6691. (C_2H_3X, C_6H_5X, X=H, F, Br, Cl, I - C1s)

BM&89a S. Bodeur, P. Millie, E. Lizon A Lugrin, I. Nenner, A. Filiponi, F. Boscherini and S. Mobilio, Phys. Rev. A 39 (1990) 5075. (SiX_4, X = H, F, Cl, Br, CH_3, ; SiH_2 - Si1s; $SiBr_4$ - Br2s)

BM&89b C.E. Bouldin, D.A. McKeown, R.A. Forman, J.J Ritter and G. Bunker, Physica B 158 (1989) 362. ($GeCl_4$, $GeClH_3$, GeH_4 - Ge1s)

BM&90 S. Bodeur, J.L. Marechal, C. Reynaud, D. Bazin and I. Nenner, Z. Phys. D 17 (1990) 291. (HCl,Cl_2 - Cl1s)

BM&95 M. Bissen, M. Fisher, G. Rogers, D. Eisert, K. Kleman, T. Nelson, B. Mason, F. Middleton and H. Hoescht, Rev. Sci. Inst. 66 (1995) 2072. (Ne1s; CO, O_2 - O1s)

BN66 R.L. Barinskii and V.I. Nefedov, *X-ray Spectral Determination of the Charge of Atoms in Molecules* (Russian), Nauka Press, Moscow,1966 (HCl-Cl1s)

BN86 S. Bodeur and I. Nenner, J. Phys. (Paris) 42 C-8 (1986) 79. (SiX_4-Si1s, X=Cl,F,H)

BN97 A.G.H. Barbosa and M.A.C. Nascimento, Chem. Phys. Lett. 279 (1997) 119. (N_2 - N1s)

BNH92 C.E. Bielschowsky, M.A.C. Nasciemento and E. Hollauer, Phys. Rev. A 45 (1992) 7942 (N_2 -N1s)

BNM86 S. Bodeur, I. Nenner and P. Millie, Phys. Rev. A 34 (1986) 2986. (SiX_4-Si1s,X = Cl, F, H)

BNZ72 V.I. Baranovskii, M.S. Nakhmanson and Yu.M. Zaitsev, J. Struct. Chem. 13 (1972) 793 [Zh. Struk. Khim. 13 (1972) 848]. [$SiCl_x(CH3)_{4-x}$ - Si2p]

BN&84 B. Sonntag, T. Nagata, Y.Sato, Y. Satow, A. Yagishita and M. Yangihara, J. Phys. B 17 (1984) L55. (Xe3d, Cs3d, Ba3d)

BPS97 N.R. Badnell, D. Petrini and S. Stoica, J. Phys. B 30 (1997) L665. (B1s)

BP&78 A. Bianconi, H. Peterson, F.C. Brown and R.Z. Bachrach, Phys. Rev. A 17 (1978) 1907. (N_2,N_2O -N1s)

BP&86 U. Becker, T. Prescher, E. Schmidt, B. Sonntag & H.E. Wetzel, Phys. Rev. A 33 (1986) 3891. (Xe4d)

BQB81 S. Baroni, A. Quattropani and A. Baldereschi, Chem. Phys. Lett. 79 (1981) 509. (Ne1s, Ar1s)

BRK00 A.A. Borovik, H.J. Rojas and G.C. King, Meas. Sci. Tech. 11 (2000) N42. (K2p)

BR&92 S. Bodeur, C. Reynaud, K. Bisson, P. Millie, I. Nenner, U. Rockland and H. Baumgartel, AIP Conf. Proc. 258 (1992) 300. (SF_6, SF_5Cl, H_2S - S1s)

BR&95 C.P.J. Barty, F. Raksei, C. Rose-Petruck, K.J.Schafer, K.R. Wilson, V.V. Yakovlev, K. Yamakawa, J. Zhiming, A. Ikhlef, C.Y. Cote and J.C. Kieffer, S.P.I.E. Proc 2521 (1995) 246. (SF_6 - S1s)

BS85 A. Barth and J. Schirmer, J. Phys. B 18 (1985) 867. (N_2-N1s, CO-C1s,O1s)

BS87 C.E. Brion and K.H. Sze, Electron-Molecule Scattering and Photoionisation, Proc. XV ICPEAC (Brighton, 1987) (Plenum, 1988) (ClF_3-Cl2p,F1s; NO_2 - N1s,O1s)

BS90 U. Becker and D.A. Shirley, Phys. Scrpta T31 (1990) 56. (Ne1s, Kr3d, Xe3d, N_2-N1s, CO-C1s)

BS96 U. Becker and D.A. Shirley, "Partial Cross-sections and Angular Distributions" in VUV and Soft X-ray Photoionization, U. Becker, D.A. Shirley, eds. (Plenum, NY, 1996) 135. (Ar1s, Ar2p, Eu4d, Mn3p, Xe4d; C_{60}-C1s)

BSS93a J.D. Bozek, N. Saito and I.H Suzuki, J. Chem. Phys.98 (1993) 4652. (N_2O - N1s,O1s)

BSS93b J.D. Bozek, N. Saito and I.H Suzuki, Proc. VUV-10 (World Scientific, 1993) (CF_2Cl_2 - Cl2p, F1s]

BSS94 J.D. Bozek, N. Saito and I.H. Suzuki, J. Chem. Phys. 100 (1994) 393. (CO - C1s, O1s)

BSS95 J.D. Bozek, N. Saito and I.H. Suzuki, Phys. Rev.A 51 (1995) 4563. (CO_2 - C1s, O1s)

BST80 H.G. Bennewitz, W.H.E. Schwarz and K.H. Thunemann, Chem. Phys. 52 (1980) 227. (TeF_4-Te4d)

BSW77 R. Bruhn, B. Sonntag and H.W. Wolff, Proc. 5th Int. Vac. UV Rad. Phys. Conf. (Montpellier, 1977) I-20. (Fe3p)

BSW78 R. Bruhn, B. Sonntag and H.W. Wolff, Phys. Lett. A 69 (1978) 9. (Mn3p)

BSW79 R. Bruhn, B. Sonntag and H.W. Wolff, J. Phys. B 12 (1979) 203. (Fe3p, Co3p, Ni3p, Cu3p)

BS&69 S.M. Blokhin, A.P. Sadovskii, G.N. Dolenko and V.M. Bertenev, J. Struct. Chem. 10 (1969) 722 [Zh. Struk. Khim. 10 (1969) 833]. (Cl_2, HCl, CCl_4, $CHCl_3$, CH_3Cl - Cl1s)

BS&74 S. Bodeur, C. Senemaud, C. Bonnelle and J.P. Connerade, Proc. 4th Int. Vac. UV Rad. Phys. Conf. (Hamburg, 1974) 94. (O_2 - O1s)

BS&82 R. Bruhn, E. Schmidt, H. Schroder and B. Sonntag, J. Phys. B 15 (1982) 2807. (Cr3p)

BS&89a U. Becker, D. Szostak, M. Kupsch, H.G. Kerkoff, B. Langer, and R. Wehlitz, J. Phys. B 22 (1989) 749. (Xe4d)

BS&89b U. Becker, D. Szostak, H.G. Kerkoff, M. Kupsch, B. Langer, R. Wehlitz, A. Yagashita and T. Hayaishi, Phys. Rev. A 39 (1989) 3902. (Xe4d,4p)

BS&97 O. Bjorneholm, S. Sundin, S.Svensson, R.R.T. Marinho, A. Naves de Brito, F.Kh. Gel'mukhanov and H. Agren, Phys. Rev. Lett. 79 (1997) 3150. (HCl - Cl2p)

BS&02 B.H. Boo, N. Saito, I.H. Suzuki and I. Koyano, J. El. Spec. 123 (2002) 73. (CBr_4 – Br3d, C1s)

BT92 I.M. Band and M.B. Trzhaskovskaya, J. Phys. B 25 (1992) L145 (U5d, Th5d)

BT97 I.M. Band and M.B. Trzhaskovskaya, J. Phys. B 30 (1997) 5185. (Ba4d)

BT&87 J.D. Bozek, K.H. Tan, G.M. Bancroft and J.S. Tse, Chem. Phys. 138 (1987) 33. ($SiCl_4$, $Si(CH_3)_4$ - Si2p,2s, Cl2p)

BT&92 J.D. Bozek, K.H. Tan, G.M. Bancroft and K.J. Fu, Chem. Phys. 158 (1992) 171 ($Si(CH_3)_xF_{4-x}$ - Si2p)

BW&76 A.L. Bennani, H.F. Wellenstein, A. Diguet, B. Nuguyen and A.D. Barlas, Chem. Phys. Lett. 41 (1976) 470. (CH_4 - C1s)

BW&99 M. Banndorf, W.B. Westerveld, J. van Eck, J. van der Weg and H.G.M. Heideman, J. Phys. B32 (1999) 2503. (CO – C1s, O1s)

BY&93 M. Byong-Soo, Y. Yoshinari, T. Watabe, Y. Tanaka, C. Takayanagi, T. Takayanagi, K. Wakiya and H. Suzuki, J. Phys.Soc. Jpn. 62 (1993) 1183. (Xe4d)

BZ&67 V.I. Barinovskii, T.M. Zimkina, V.A. Fomichev and B.E. Dzevitski, Theor. Exp. Chem. 3 (1967) 260 [Teor. i Eksp. Khim. 3 (1967) 354]. (SF_6-S2p)

C37 B. Cioffari, Phys. Rev. 51 (1937) 630. (HBr,Br_2,IBr-Br1s; IBr,I_2-I1s)

C64 J.W. Cooper, Phys. Rev. Lett. 13 (1964) 762. (Xe4d)

C69 H.U. Chun, Phys. Lett. A 30 (1969) 445. (CH_4 - C1s)

C73 K. Codling, Rep. Prog. Phys. 36 (1973) 541. (Ar2p, N_2-N1s, SiH_4-Si2p, review)

C76 J.P. Connerade, Proc. Roy. Soc. London A 347 (1976) 581. (Xe4p)

C78 J.P. Connerade, Contemp. Phys. 19 (1978) 415. (review of atomic photo- absorption; Ba4d)

C82a J.P. Connerade, J. Phys. B 15 (1982) L881. (Ba4d)

C82b J.P. Connerade, J. Phys. C 15 (1982) L367. (Cs4d - theory)

C82c F. Combet-Farnoux, Phys. Rev. A 25 (1982) 287. (Xe4d, Cu3p, La4d)

C83 J.P. Connerade, J. Phys. B 16 (1983) L257. (Ba4d)

C84 J.P. Connerade, J. Phys. B 17 (1984) L165. (Ba4d, Cd3d, Eu4d, Kr3d, Mn3p, Xe4d)

C86 F. Combet-Farnoux, Z. Phys. D 2 (1986) 337. (Cu3p)

C88 J.W. Cooper, Phys. Rev. A 38 (1988) 3417. (Ar1s)

C89 J.W. Cooper, Phys. Rev. A 39 (1989) 3714. (Ar2p)

C90 K.F. Chung, Phys. Rev. A 42 (1990) 5732. (Be1s)

C93 J.W. Cooper, Phys. Rev. A 47 (1993) 1841. (Ar2p, Ne1s, Kr3d, Xe3d,4d)

C95 L.S. Cederbaum, J. Chem. Phys. 103 (1995) 562. (C_2H_4 - C1s)

CAC89 A. Cesar, H. Agren and V. Carravetta, Phys. Rev. A 40 (1989) 187. (H_2O - O1s)

CA&87 T.X. Carroll, S.E. Anderson, L. Ungier and T.D. Thomas, Phys. Rev. Lett. 58 (1987) 867. (NO-N1s)

CA&99 M. Corenco, L. Avaldi, R. Camilloni, K.C Prince, M. de Simone, J. Karvonnen, R. Colle and S. Simonucii, Phys. Rev A 59 (1999) 2494. (Ne1s)

CB80 F. Combet-Farnoux and M. Ben Amar, Phys. Rev. A 21 (1980) 1975. (Ni 3p)

CBS87 J.P. Connerade, M.A. Baig and M. Sweeney, J. Phys. B 20 (1987) L771. (Ca3p)

CB&95 G. Cooper, G.R. Burton, W.F. Chan and C.E. Brion, Chem. Phys. 196 (1995) 293. (SiH_4 - Si2p)

CB&01 E.J. Cardosa, F. Burmeister, O.Bjorneholm and A. Naves de Brito, VUV-13 abstracts (2001) CS_2, SO_2 – S1s)

CC82 S. Canuto and M.R. Chacon, Chem. Phys. 87 (1984) 17. (BeF_2-Be1s, F1s)

CC85 M.R. Chacon and S. Canuto, Chem. Phys. Lett. 120 (1985) 86. (HF-F1s)

CC86 P.K. Carroll and J.T. Costello, Phys. Rev. Lett. 57 (1986) 1581. (Th5d)

CC94 M.K. Chen and K.T. Chung, Phys. Rev. A 49 (1994) 1675. (Li1s)

CCM88 I. Cacelli, V. Carravetta and R. Moccia, Chem. Phys. 120 (1988) 51. (H_2S-S2p)

CC&81 R. Cambi, G. Ciullo, A. Sgamellotti, F. Tarentelli and M. F. Guest, Chem. Phys. Lett. 83 (1981) 320. (BeH_2-Be1s)

CC&82 R. Cambi, G. Ciullo, A. Sgamellotti, F. Tarentelli and M. F. Guest, Chem. Phys. Lett. 91 (1982) 178. (NH_2-N1s)

CC&89 J.W. Cooper, C.W. Clark, C.L. Cromer, T.B. Lucarto, B.F. Sonntag, E.T. Kennedy and J.T. Costello, Phys.

Rev. A 39 (1989) 6074. (Mn. Mn^+ - Mn3p; Cr3p)

CC&92 W.F. Chan, G. Cooper, X. Guo, G.R. Burton and C.E. Brion, Phys. Rev. A 46 (1992) 149. (Ar2p, Kr3d, Xe4d)

CC&95 S.C. Chung, C.I. Chen, P.C. Tseng, H.F. Lin, T.E. Dann, Y.F. Song, L.R. Huang, C.C. Chen, J.M. Chuang, K.L. Tsang and C.N. Chang, Rev. Sci. Inst. 66 (1995) 1655. (Ne1s, Ar2p; N_2-N1s, CO - C1s,O1s; O_2 - O1s)

CD78 B.E. Cole and R.N. Dexter, J. Quant. Spectrosc. Rad. Transfer 19 (1978) 303. (CCl_xF_{4-x}, x=0-4, $CHClF_2$, $CHCl_2F$, C_2F_6, $C_2Cl_2F_4$ - Cl2p)

CD96 J.P. Connerade and V.K. Dolmatov, J. Phys. B 29 (1996) L831. (Mn3p)

CDM76 J.P. Connerade, B. Drerup and M.W.D. Mansfield, Proc. Roy. Soc. London A 348 (1976) 235. (Pb4f)

CD&90 B. Carre, P. D'Oliveira, M. Ferray, P. Fournier, F. Gounard, D. Cubaynes, J.M. Bizau and F.J Willeumier, Z. Phys. D 15 (1990) 117. (Na2p)

CD&96 D. Cubaynes, S. Diehl, L. Journel, B. Rouvellou, J.-M. Bizau, S. Al Moussalami, F.J. Wuilleumier, N. Berrah, L. VoKy, P. Faucher, A. Hibbert, C. Blancard, E. Kennedy, T.J. Morgan, J. Bozek and A.S. Schlachter, Phys. Rev. Lett. 77 (1996) 2194. (Li1s)

CEK76 P.H. Citrin, P. Eisenberger and B.M. Kincaid, Phys. Rev. Lett. 36 (1976) 1346. (CBr_4, Br_2 - Br1s)

CE&92 J.T. Costello, D. Evans, R.B. Hopkins, E.T. Kennedy, L. Kiernor, M.W.D. Mansfield, J.P. Mosnier, M.H. Sayyad and B.F. Sonntag, J. Phys. B 25 (1992) 5055. (Al2p)

CF83 K.T. Cheng and C. Froese-Fischer, Phys. Rev. A 28 (1983) 2811, 2820 (Xe, Cs^+, Ba^{2+}, etc - 4d)

CF&83 R. Camilloni, E. Fainelli, G. Petracelli and G. Stefani, in *EXAFS and Near Edge Structure* (1983,Springer-Verlag, Berlin) 174. (N_2-N1s G.O.S.)

CF&84a R. Camilloni, E. Fainelli, G. Petracelli, G. Stefani, F. Moracci and R. Platania, Lect. Notes in Chemistry 35 (1984) 172. (N_2, NO, N_2O -N1s; BF_3-B1s)

CF&84b C.T. Chen, W.K. Ford, R.A. DiDio, E.W. Plummer and W. Eberhardt, NSLS Report (1984) 163. (CO-C1s)

CF&85 N. Correia, A. Aores-Riveros, H. Agren, K. Helenelund, L. Asplund and U. Gelius, J. Chem. Phys. 83 (1985) 2035. (CO-C1s,O1s)

CF&87 R. Camilloni, E. Fainelli, G. Petracelli and G.Stefani, J. Phys. B 20 (1987) 1839. (N_2, NO, N_2O -N1s)

CF&90 C.D. Caldwell, M. Flemming, M.O. Krause, P. Van der Meulen, C. Pau and A.F. Starace, Phys. Rev A 41 (1990) 542. (Be1s)

CGM71 J.P. Connerade, W.R.S. Garton and M.W.D. Mansfield, Astrophys. J. 165 (1971) 203. (Na2p, Na2s)

CG&80 D.T. Clark, M.F. Guest, A. Sgamellotti and F. Tarantelli, Chem. Phys. 52 (1980) 11. (CH_2-C1s)

CG&88 T.A. Carlson, P. Gerard, M.O. Krause, G.V. Wald, J.W. Taylor, F.A. Grimm and B.P. Pullen, J. El. Spectrosc. 47 (1988) 227. ($SiCl_4$ - Si2p,Cl2p; CH_xCl_{4-x}, x=0-3 - Cl2p)

CG&97a A. Cesar, F.Kh. Gel'mukhanov, Y. Luo, H. Agren, P. Skytt, P. Glans, J. Guo, K. Gunnelin and J. Nordgren, J. Chem. Phys. 106 (1997) 3439. (CO_2 - O1s)

CG&97b V.Carravetta, F.Kh. Gel'mukhanov, H. Agren, S. Sundar, S.J. Osbore, A. Naves de Brito, O. Bjorneholm, A. Ausmees and S. Svensson, Phys. Rev. A 56 (1997) 4665. (CO - C1s)

CH86 J.P. Connerade and J. Hormes, Z. Phys. D 4 (1986) 3 (Ar1s, H_2S, SCl_2-S1s)

CH98 D.P. Chong and C.H. Hu, J. Electron Spectrosc. 94 (1998) 181. ($C_5H_8O_2$ - O1s)

CHW77 K. Codling, J.R. Hamley and J.B. West, J. Phys. B 10 (1977) 353. (Na2p)

CHW78 K. Codling, J.R. Hamley and J.B. West, J. Phys. B 11 (1978) 1713. (Cd4d)

CH&73 F.J. Comes, R. Haensel, U. Nielsen and W.H.E. Schwarz, J. Chem. Phys. 58 (1973) 516. (XeF_2, XeF_4 - Xe4d)

CH&85 T.C. Chang C.S. Hsue, P.A. Ruttink and W.H.F. Schwarz, Chem. Phys. 93 (1985) 405. (HF-F1s, H_2O-O1s, NH_3-N1s)

CH&97 R. Chauvistre, J. Hormes, E. Hartmann, N. Etzenbach, R. Hosch and J. Hahn, Chem. Phys. 223 (1997) 293. (R-S_n-R, (n=2): R=Me, iPr, t-Bu, n-Bu, C_6H_5, $C_6H_5CH_2$, $CH_3CH{=}CHCH_2$, $Me_2C{=}CMeCH_2$; (n=3,4) t-Bu, n-Bu, $Me_2C{=}CMeCH_2$ - S 1s)

CH&01 H. S. Chakraborty, D. L. Hansen, O. Hemmers, P.C. Deshmukh, P. Focke, I. A. Sellin, C. Heske, D.W. Lindle, and S. T. Manson, Phys. Rev. A 63 (2001) 042708. (Kr3d, Kr3p, Kr3s)

CIB90 G. Cooper, T. Ibuki and C.E. Brion, Chem. Phys. 140 (1990) 147. (SiH_4 - Si2p,2s)

CJ99 R.G. Cavell and A. Jürgensen, J. El. Spec. 101-103 (1999) 125. (Br_3P, CCl_2H_3P,CCl_2H_3OP, CCl_2H_3PS, $C_2ClH_6PO_2S$, C_3H_9P,$C_3H_9O_4P$, $C_3H_9O_3P$, $C_3H_9O_3PS$, $C_6H_{15}P$, Cl_3OP, Cl_3P, Cl_3PS, F_3PS, F_3OP, PF_5, F_3P, H_3P, – P1s)

CKS80 P.K. Caroll, E.T. Kennedy and G.O. Sullivan, Appl. Optics 19 (1980) 1454. (CH_3I - I4d, CCl_4 - C1s, Cl2p)

CK&85 S.H. Chou, F.W. Kutsley, D.E. Ellis, G.K. Shenoy, T.I. Morrison and P.A. Montano, Phys. Rev. B 31 (1985) 1069. ($FeCl_2$-Fe1s,Cl2p; KrF_2-Kr1s)

CKJ88 C.D. Caldwell, M.O. Krause and J.Jiminez Mier, Phys. Rev. A. 37 (1988) 2408. (Ga3d)

CK&91a J.T. Costello, E.T. Kennedy, B.F. Sonntag and C.W. Clark, Phys. Rev. A 43 (1991) 1441. (Cr,Cr^+-Cr3p; Mn,Mn^+-Mn3p)

CK&91b J.T. Costello, E.T. Kennedy, B.F. Sonntag and C.L. Cromer, J. Phys. B 24 (1991) 5063. (W4f,Pt4f)

CK&95 J.M. Chen, R. Klausen, S.C. Yang and C.R. Wen, Chem. Phys. Lett. 246 (1995) 285. ($SiCl_4$ - Si2p)

CK&98a J.T. Costello, E.T. Kennedy, J.P. Mosnier, M.H. Sayyad and C. McGuiness, J. Phys. B 31 (1998) L547. (Si2p)

CK&98b J.T. Costello, E.T. Kennedy, J.P. Mosnier and M.H. Sayyad, J. Phys. B 31 (1998) 677. (Al2p, Si2p)

CK&99 C.D.Caldwell, M.O. Krause, R.D. Cowan, A. Menzel, S.B. Whitfield, S. Hallinien, S.P. Frigo and M.C. Seversen, Phys. Rev. A 59 (1999) R926. (Cl2p)

CL&97 J.M. Chen, K.T. Lu, R.G. Liu, J.W. Lay and Y.C. Liu, J. Chem. Phys. 106 (1997) 9105. ($C_2Cl_2H_6Si$ -Si2p)

CM64 K. Codling and R.P. Madden, Phys. Rev. Lett. 12 (1964) 106. (Kr3d, Xe4d)

CM65 K. Codling and R.P. Madden, Appl. Opt. 4 (1965) 1431. (Kr3d, Xe4d)

CM73 J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 335 (1973) 87. (Hg4f, Hg5s)

CM74a J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 339 (1974) 533. (Zn3s)

CM74b J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 341 (1974) 267. (Ba3d)

CM75a J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 343 (1975) 415. (Kr3d)

CM75b J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 344 (1975) 435. (T14f)

CM76a J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 348 (1976) 239. (Cs4d, Cs3d)

CM76b J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 348 (1976) 539. (Rb3d, Rb3p)

CM77a J.P.Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 352 (1977) 557. (Cd3d, Rb3d, Rb3p, Kr3d, Sr3d, Sr3p)

CM77b J.P. Connerade and M.W.D. Mansfield, Proc. Roy. Soc. London A 356 (1977) 135. (Se_2 - Se3d)

CM82 J.P. Connerade and M.W.D. Mansfield, Phys. Rev. Lett. 15 (1982) 131. (Ba4d - theory)

CMM76 J.P. Connerade, M.W.D. Mansfield and M.A.P. Martin, Proc. Roy. Soc. London A 350 (1976) 405. (Mn3p)

CMS89 C.T. Chen, Y. Ma and F. Sette, Phys. Rev. A 40 (1989) 6737. (N_2-N1s)

CMT73 J.P. Connerade, M.W.D. Mansfield, K. Thimm, Chem. Phys. 1 (1973) 256. (N_2 - N1s)

CMT74 J.P. Connerade, M.W.D. Mansfield and K. Thimm, Proc. Roy. Soc. London A 337 (1974) 293. (Cd3d)

CM&72 J.P. Connerade, M.W.D. Mansfield, K. Thimm and I. Pollard, Phys. Rev. A 6 (1972) 1955. (Cd3d)

CM&80 J.P. Connerade, M.W.D. Mansfield, M. Cukier and M. Pantelouris, J. Phys. B 13 (1980) L235. (UF_4-U5d)

CM&88a T.A. Carlson, D.R. Mullins, C.E. Beall, B.W. Yates, J.W. Taylor, B.P. Pullen, D.W. Lindle and F.A. Grimm, Phys. Rev. Lett. 60 (1988) 1382 (Kr3d).

CM&88b T.A. Carlson, D.R. Mullins, C.E. Beall, B.W. Yates, J.W. Taylor, B.P. Pullen and F.A. Grimm, J. Chem. Phys. 89 (1988) 4490 (SiCl4-Si2p)

CM&89 T.A. Carlson, D.R. Mullins, C.E. Beall, B.W. Yates, J.W. Taylor, and D.W. Lindle, Phys. Rev. A 39 (1989) 1170 (Ar2p, Kr3d, Xe4d)

CM&91 J.T. Costello, J.P. Mosnier, E.T. Kennedy, P.K. Carroll and G. O'Sullivan, Phys. Scripta T34 (1991) 77. (Th5d, U5d, Cr3p, Cr^+-3p, Mn3p, Mn^+-3p)

CM&98 S.Y. Chen, C.I. Ma, D.M. Hanson, K. Lee and D.Y. Kim, J. Electron Spectrosc. 93 (1998) 61. (N_2O-N1s)

CM&01 A. Cummings, C.McGuiness, G. O'Sullivan, J.T. Costello, J.P. Moesnier and E.T. Kennedy, Phys. Rev. A 63

(2001) 22702. (Cs4d)

CNS73 F.J. Comes, U. Nielsen and W.H.E. Schwarz, J. Chem. Phys. 58 (1973) 2230. (I_2 - I4d)

CP75 T.N. Chang and R.T. Poe, Phys. Rev. A 11 (1975) 191. (Li1s)

CP84 J.P. Connerade and M. Pantalouris, J. Phys. B 17 (1984) L173. (Gd, GdF_3 - Gd4d)

CPA01 Vincenzo Carravetta, Oleksandr Plashkevych and Hans Ågren, Chem. Phys. 263 (2001) 231. (CO- C1s, O1s; C_4H_6 – C1s; $C_5H_2N_4$, C_6H_5N, C_6H_7N, -C1s, N1s)

CP&72 B. Cadioli, U. Pincelli, E. Tosatti, U. Fano and J.L. Dehmer, Chem. Phys. Lett. 17 (1972) 15. (BF_3)

CP&77 A.M. Cantu, W.H. Parkinson, G. Tondello and G.P. Tozz, J. Opt. Soc. Am. 67 (1977) 1030. (Li1s)

CP&80 J.P. Connerade, M. Pantelouris, M.A. Baig, M.A.P. Martin and M. Cukier, J. Phys. B 13 (1980) L357. (ThF_4-Th5d, LaF_3-La4d)

CP&90 D. Coulman, A. Puschmann, U. Hofer, H.P. Steinruck, W. Wurth, P. Feulner and D. Menzel, J. Chem. Phys. 93 (1990) 58. (H_2O - O1s)

CR&00 N.A. Cherepkov, G. Raseev, J. Adachi, Y. Hikosoka, K. Ito, S. Motoki, M. Sano, K. Soejima and A. Yagashita, J. Phys. B 33 (2000) 4213. (CO – C1s, O1s)

CS77 T.C. Chang and W.H.E. Schwarz, Theor. Chim. Acta (Berl.) 44 (1977) 45. (Li1s)

CS89 C.T. Chen and F. Sette, Rev. Sci. Inst. 60 (1989) 1616 (N_2-N1s; CO-C1s)

CS90 C.T. Chen and F. Sette, Phys. Scripta T31 (1990) 119. (N_2-N1s; C_2H_4,C_2D_4, C_6H_6,C_6D_6, CCl_2F_2, $CClF_3$ - C1s)

CS96 A. Cummings and G. O'Sullivan, Phys. Rev. A 54 (1996) 323. (Br3d)

CS01 A. Cummings and G. O'Sullivan, J. Phys. B 34 (2001) 199. (Cs4d)

CSB89 G. Cooper, K.H. Sze and C.E. Brion, J. Am. Chem. Soc. 111 (1989) 5051. (CO - C1s,O1s; $Ni(CO)_4$ - C1s, O1s, Ni3p)

CSB90 G. Cooper, K.H. Sze and C.E. Brion, J. Am. Chem. Soc. 112 (1990) 4221. (M(CO)6, M=Cr, Mo, W - C1s, O1s)

CS&86 T.A. Carlson, W.A. Svensson, M.O. Krause, T.A. Whitley, F.A. Grimm, G.V. Wald, J.W. Taylor and B.P. Pullen, J. Chem. Phys. 84 (1986) 122. ($SiCl_4$ - Si2p)

CS&00 N.A. Cherepkov, S.K. Semenov, Y. Hikosoka, K. Ito, S. Motoki and A. Yagashita, Phys. Rev. Lett. 84 (2000) 250. (N_2 – N1s)

CT88 T.X. Carroll and T.D. Thomas, J. Chem. Phys. 89 (1988) 5983 (O2-O1s).

CT89 T.X. Carroll and T.D. Thomas, J. Chem. Phys. 90 (1989) 3479. (CO, CO_2, COS - O1s)

CT90 T.X. Carroll and T.D. Thomas, J. Chem. Phys. 92 (1990) 7171. (O_2-O1s)

CT91 T.X. Carroll and T.D. Thomas, J. Chem. Phys. 94 (1991) 11. (CO_2 - C1s,O1s)

CT92 T.X. Carroll and T.D. Thomas, J. Chem. Phys. 97 (1992) 894. (NO - N1s)

CTS82 A.M. Cantu, G.P. Tozzi and N. Spector, J. Opt. Soc. Am. 72 (1982) 729. (Al2p)

CT&74 J.P. Connerade, D. Tracy, M.W.D. Mansfield and K. Thimm, Proc. 4th Int. Vac. UV Rad. Phys. Conf. (Hamburg, 1974) 243. (Ba4d)

CV&98 D. Cubaynes, L. VoKy, F.J. Wuilleumier, B. Rouvellou, A. Hibbert, P. Faucher, J.M. Bizau, L. Journel, H.E. Saraph and F. Bely-Dubau, Phys. Rev. A 57 (1998) 4432. (Na2p)

CWB94 G. Cooper, Z. Wenzhu and C.E. Brion, Can. J. Phys. 72 (1994) 1093. (IF_5 - I4d, I3d, F1s)

CW&92 D. Cubric, A.A. Wills, J. Comer and M.A. MacDonald, J. Phys. B 25 (1992) 5069. (Kr3d)

CZ&91 G. Cooper, E.B. Zarate, R.K. Jones and C.E. Brion, Chem. Phys. 150 (1991) 251. (SO_2 - S2p,2s)

D68 R.D. Deslattes, Phys. Rev. Lett. 20 (1968) 483. (Xe3d)

D69 R.D. Deslattes, Phys. Rev. 186 (1969) 1. (Ar2p)

D72 J.L. Dehmer, J. Chem. Phys. 56 (1972) 4496. (potential barriers - review; H_2S,SF_6-S1s; BF_3-B1s; CS_2,H_2S,SO_2,SF_6-S2p; $SiCl_4$,SiF_4-Si2p)

D86a L.C. Davis, J. Appl. Phys. 59 (1986) R25. (Ni3p)

D86b R.D. Deslattes, Aust. J. Phys. 39 (1986) 845. (Ar1s; HCl, CH_3Cl - Cl1s; H_2S - S1s)

D92a J. Delwiche, AIP Conf. Proc. 258 (1992) 292. (SiF_4, $SiCl_{43}$ - Si2p; C_6F_6 - C1s,F1s)

D92b V.K. Dolmatov, J. Phys. B 25 (1992) L692. (Mn4s)

D93a V.K. Dolmatov, J. Phys. B 26 (1993) L79. (Mn3p)

D93b V.K. Dolmatov, J. Phys. B 26 (1993) L393. (Cr3p)

DA&93 J. Doppelfeld, N. Anders, B. Esser, F. von Busch, H. Scherer and A. Zinz, J. Phys. B 26 (1993) 445. (Ar1s)

DBH83 S. Daviel, C.E. Brion and A.P. Hitchcock, Rev. Sci. Inst. 55 (1984) 182. (N_2-N1s; HCl-Cl2p, review)

DBK91 M. Deutsch, G. Brill and P. Kizler, Phys. Rev. A 43 (1991) 2591. (Xe1s)

DB&96 Th. Dohrmann, A. von dem Borne, A. Verweyen, B. Sonntag, M. Wedowski, K. Godehusen and P. Zimmermann, J. Phys. B 29 (1996) 5699. (Cr3p)

DB&98 C. Dezarnaud-Dandine, F. Bournel, M. Tronc, D. Jones and A. Modelli, J. Phys. B 31 (1998) L497. $(CH_3)_2S_x$ x=1-3 - Si1s)

DC76 P.W. Deutsch and L.A. Curtiss, Chem. Phys. Lett. 39 (1976) 588. (CH_4, NH_3, H_2O, HF)

DCT98 N.V. Dobrodey, L.S. Cederbaum and F. Tarantelli, Phys. Rev. B 58 (1998) 2316. (NiN_2 – N1s)

DCZ83 J.W. Davenport, G.J. Cosgrove and A. Zangwill, J. Chem. Phys. 78 (1983) 1095. (Li_2-Li1s, Na_2-Na1s)

DC&90 J.P. Doering, M.A. Copley, J.W. Cooper and J.H. Moore, Phys. Rev. A 41 (1990) 535. (Ar2p)

DC&96 S. Diehl, D. Cubaynes, J.-M. Bizau, L. Journel, B. Rouvellou, S. Al Moussalami, F.J. Wuilleumier, E.T. Kennedy, N. Berrah, C. Blancard, T.J. Morgan, J. Bozek, A.S. Schlachter, L. VoKy, P. Faucher and A. Hibbert, Phys. Rev. Lett. 76 (1996) 3915. (Li1s)

DC&97a S. Diehl, D. Cubaynes, E.T. Kennedy, F.J. Wuilleumier, J.-M. Bizau, L. Journel, L. VoKy, P. Faucher, A. Hibbert, C. Blancard, N. Berrah, T.J. Morgan, J. Bozek and A.S. Schlachter, J. Phys. B 30 (1997) L595. (Li1s)

DC&97b S. Diehl, D. Cubaynes, F.J. Wuilleumier, J.-M. Bizau, L. Journel, E.T. Kennedy, C. Blanchard, L. VoKy, P. Faucher, A. Hibbert, N. Berrah, T.J. Morgan, J. Bozek and A.S. Schlachter, Phys. Rev. Lett. 79 (1997) 1241. (Li1s)

DC&99 R.Darcy, J.T. Costello, C. McGuiness and G. O'Sullivan, J. Phys.B 32 (1999) 4859.(Sb4d)

DD75 J.L. Dehmer and D. Dill, Phys. Rev. Lett. 35 (1975) 213. (N_2-N1s)

DD76a J.L. Dehmer and D. Dill, J. Chem. Phys. 65 (1976) 5327.(N_2-N1s)

DD76b J.L. Dehmer and D. Dill, Proc. 2nd Int. Conf. on Inner Shell Ionization Phenomenon, Freiburg, W. Mehlhorn and R. Brehm, eds., (1976) 221. (N_2-N1s)

DD79 J.L. Dehmer and D. Dill, *Electron-Molecule and Photon-Molecule Collisions* (T. Rescigno,ed.; Plenum, 1979) 225. (N_2-N1s; CO-C1s,O1s)

DDH82 W.R. Daasch, E.R. Davidson and A.U. Hazi, J. Chem. Phys. 76 (1982) 6031. (CO_2-O1s)

DF76 L.C. Davis and L.A. Feldkamp, Sol. St. Comm. 19 (1976) 413. (Cr,Mn,Fe.Co,Ni-3p)

DF81 L.C. Davis and L.A. Feldkamp, Phys. Rev. A 24 (1981) 1862. (Cu3p)

DFL92 P. Decleva, G. Fronzoni and A. Lisini, Chem. Phys. 168 (1992) 51. ($Ni(CO)_4$, $Ni(C_3H_5)_2$ - Ni2p; $Pd(C_3H_50_2$ - Pd2p; $Fe(CO)_2(NO)_2$ - Fe2p; $Cr(NO)_4$ - Cr2p)

DF&89 C. Dzionk, W. Fielder, M. von Lucke and P. Zimmermann, Phys. Rev. Lett. 62 (1989) 878 (Dy4d).

DF&94 P. Decleva, G. Fronzoni, A. Lisini and M. Stener, Chem. Phys. 186 (1994) 1. (TiX_4, X=F,Cl,Br - Ti1s, Ti2p; VOX_3, X=F,Cl - V1s, V2p; CrO_2X_2, X=F,Cl - Cr1s, Cr2p; MnO_3X, X=F,Cl - Mn1s, Mn2p)

DF&00 D. Duflot, J.P. Flament, J. Heinesch and M.J Hubin-Franskin, J El. Spec. 113 (2000) 79. (C_6H_6 – C1s)

DF&03 D. Duflot, J.P. Flament, I.C. Walker, J. Heinesch and M.J Hubin-Franskin, J Chem. Phys. (2003) in press. (C_3H_4O – C1s, O1s)

DG86 A.K. Dozier and P.C. Gibbons, Phys. Rev. A 32 (1985) 1981. (Xe4d)

DGT92 C. Dezarnaud, F. Guillot and M. Tronc, J. Phys. B 25 (1992) L123 (Xe2p,2s).

DG&86 J.P. Doering, A. Gedanken, A.P. Hitchcock, P. Fischer, J.A. Moore, J.K. Olthoff, J. Tossell, K. Raghavachari and M.B. Robin, J. Am. Chem. Soc. 108 (1986) 3602. ($B_3N_3H_6$-B1s,N1s; C_6H_6,C_6H_{12}-C1s)

DH86a M. Deutsch and M. Hart, J. Phys. B 19 (1986) L303. (Kr1s)

DH86b M. Deutsch and M. Hart, Phys. Rev. A 34 (1986) 5168. (Kr1s)

DH&86 G. Dujardin, L. Hellner, D. Winkoun and M.J. Besnard, Chem. Phys. 105 (1986) 291. (CH_3I-I4d)

DH&89 G. Dujardin, L. Hellner, B.J. Olsson, M.J. Besnard-Ravage and A. Doderich, Phys. Rev. Lett. 62 (1989) 745. (SO_2 - S2p)

DH&98 D. Duflot, C. Hannay, J.P. Flament and M.J. Hubin-Franszkin, J. Chem. Phys. 109 (1998) 5308. ($C_3N_2H_4$, C_4H_5N - C1s, N1s)

DJ&92 H.J. Dietrich, R. Jung, E. Waterstradt and K. Muller-Dethlefs, Ber. Bun. Physik. Chem. 96 (1992) 1179. (CO_2, $(CO_2)_n$ - C1s)

DK73 P.W. Deutsch and A.B. Kunz, J. Chem. Phys. 59 (1973) 1155. (CH_4,SiH_4)

DK75 P.W. Deutsch and A.B. Kunz, J. Chem. Phys. 62 (1975) 4069. (CH_4-C1s;Ne1s)

DK92 M. Deutsch and P. Kitzler, Phys. Rev. A 45 (1992) 2112 (Xe1s,Kr1s).

DK94 G. Dawber and G.C. King, J. Phys. B 27 (1994) L685. (CO - C1s)

DK&82 G.H.F. Diercksen, W.P. Kaemer, T.N. Rescigno, C.F. Bender, B.V. McKoy, S.R. Langhoff and P.W. Langhoff, J. Chem. Phys. 76 (1982) 1043. (H_2O - O1s)

DL86 K.G. Dyall and R.E. LaVilla, Phys. Rev. A 34 (1986) 5123. (Ar1s)

DLR82 A. Duguet, A. Lahman-Bennani and M. Rouault, J. Chem. Phys. 76 (1982) 5178. (Ar1s)

DL&83 R.D. Deslattes, R.E. LaVilla, P.L. Cowan and A. Henins, Phys. Rev. A 27 (1983) 923. (Ar1s)

DM98 V.K. Dolmatov and S.T. Manson, J. Phys. B 31 (1998) 999. (Mn3p)

DMD92 M. Deutsch, N. Maskil and W. Drube, Phys. Rev. A 46 (1992) 3963 (Ar1s).

DM&92 M. Domke. T. Mandel, A. Puschmann, C. Xue, D.A. Shirley, G. Kaindl, H. Petersen and P. Kuske, Rev. Sci. Inst. 63 (1992) 80 (Ar2p, Kr3d, Xe4d, N_2-N1s, CO, O_2 - O1s)

DO&96 J.M. Durand, J. Olivier-Fourcade, J.C. Jumes, M. Womes, C.M. Teodorescu, A. Elafif, J.M. Esteva and R.C. Karnatak, J. Phys. B 29 (1996) 5773. (S_2 - S1s)

DQB90 D.M. Dickinson, C.A. Quarles and C.E. Blount, J. El. Spect. 53 (1990) 195. (N_2 - N1s)

DP&95 M. Domke, R. Püttner, K. Schulz and G. Kaindl, Phys. Rev. A 52 (1995) 1147. ($SiCl_4$ - Si2p)

DR83 V. Dose and G. Reusing, J. El. Spectrosc. 32 (1983) 257. (NH_3, NO, N_2, N_2O, NF_3 - N1s by ion yield)

DRK94 M. Domke, G. Remmers and G. Kaindl, Nucl. Inst. Meth. B 87 (1994) 173. (N_2,NO - N1s; CO, CH_4, CD_4 - C1s; CO - O1s)

DR&89 R. Dudde, M.L.M. Rocco, E.E. Koch, S. Bennstorff and W. Eberhardt, J. Chem. Phys. 91 (1989) 20. (C_5H_5N, $C_4H_4N_2$, $C_3H_3N_3$ - N1s)

DSD76 D. Dill, J. Segal and J.L. Dehmer, J. Chem. Phys. 65 (1976) 3158. (CO-C1s,O1s; N_2-N1s)

DS&80 D. Dill, J.R. Swanson, S. Wallace and J.L. Dehmer, Phys. Rev. Lett. 45 (1980) 1393. (CO-C1s,O1s; N_2-N1s)

DS&91 A. Dadouch, S. Stranger, M.Y. Adam, L. Hellner, G. Dujardin and F. Combet-Farnoux, Phys. Rev. A 43 (1991) 1648. (Cu3p)

DS&92 A. DiCicco, S. Stizza, A. Filipponi, F. Boscherini and S. Mobilio, J. Phys. B 25 (1992) 2309 (SiX_4, x=Cl,F,CH_3 - Si1s)

DT02 A.T. Domondon and X.M. Tong, Phys. Rev. A 65 (2002) 032718. (I4d)

DTH90 C. Dezarnaud, M. Tronc and A.P. Hitchcock, Chem. Phys. 142 (1990) 455. (RSH, R=Me, Et, Ph); RSR (R=Me,Et), PhSMe - S1s; CH_3SH - C1s, S2p, S2s)

DTM91 C. Dezarnaud, M. Tronc and A. Modelli, Chem. Phys. 156 (1991) 129. (CH_3SH, $(CH_3)_2S$, C_2H_5SH, $(C_2H_5)_2S$, C_6H_5SH, $C_6H_5SCH_3$, CH_3SCN, CH_3SNC, SCl_2 - S1s)

DV82 A.Yu. Dukhnyakov and A.S. Vinogradov, Opt. Spectrosc. 53 (1982) 502 [Opt. Spek. 53 (1982) 841]. (SiF_4-F1s)

DYM86 G. Doggett, F.N. Yousif and J.A.D. Matthew, Mol. Phys. 57 (1986) 1297. (Li, LiH-Li1s)

DX&90 M. Domke, C. Xue, A. Puschmann, T. Mandel, E. Hudson, D.A. Shirley and G. Kaindl, Chem. Phys. Lett. 173 (1990) 122. (erratum: Chem. Phys. Lett. 174 (1990) 668. (CO - C1s, O1s)

E64 D.L. Ederer, Phys. Rev. Lett. 13 (1964) 760. (Xe4d)

E87 W. Eberhardt, Phys. Scripta T17 (1987) 28. (CO, $Fe(CO)_5$-C1s)

EA&91 F.J. Esposto, P. Aebi, T. Tyliszczak, A.P. Hitchcock, M. Kasrai, J.D. Bozek, T.E. Jackman and S.R. Rolfe, J. Vac. Sci. Tech A 9 (1991) 1663. (BF_3 - B1s)

EA&97 B. Esser, U. Ankerhold, N. Anders and F. von Busch, J. Phys. B 30 (1997) 1191. (COS, CS_2 - S1s)

EB&88 W. Eberhardt, S. Bernstorff, H.W. Jochims, S.B. Whitfield and B. Crasemann, Phys. Rev. A 38 (1988) 3808 (Ar2p)

EC&85 W. Eberhardt, C.T. Chen, W.K. Ford, E.W. Plummer and H.R. Moser, *Dissociation Induced by Electronic Transitions II*, Springer Series in Surface Science 4 (1985) 50. (CO, $Fe(CO)_5$, $Fe_3(CO)_{12}$, $Cr(CO)_6$-C1s)

ED&90 W. Eberhardt, R. Dudde, M.L.M. Rocco, E.E. Koch and S. Bernstorff, J. Electron Spectrosc. 51 (1990) 373. (N_2, C_6H_5N, N_2O - N1s)

EF&00 I.G. Eustatiu, J. T. Francis, T. Tyliszczak, C.C. Turci, A.L.D. Kilcoyne and A.P. Hitchcock, Chem. Phys. 257 (2000) 235. (SF_6 – S2p, S2s, F1s)

EG&83 J.M. Esteva, B. Gauthe, P. Dhez and R.C. Karnatak, J. Phys. B 16 (1983) L263. (Ne1s)

EH&76 W. Eberhardt, R.P. Haelbich, M. Iwan, E.E. Koch and C. Kunz, Chem. Phys. Lett. 40 (1976) 180. (CH_4, C_2H_6, C_2H_2, C_2H_4, C_6H_6, - C1s)

EH&96 P. Erman, P.A. Hatherly, A. Karawajczyk, U. Köble, E. Rachlew-Kallne, M. Stankiewicz and K.Y. Franzen, J.

Phys. B 29 (1996) 1501. (NO-N1s)

EH&98 I.G. Eustatiu, B. Huo, S.G. Urquhart and A.P. Hitchcock, J. Electron Spectrosc. 94 (1998) 243. (o,m,p-C_7H_8 - C1s)

EH99 L.E. Ennis and A.P. Hitchcock, J. Chem. Phys. 111 (1999) 3468. (HBO, $H_3B_3O_3$- B1s, O1s; HBS – B1s, S2p; H_2S – S2p)

EKK78 W. Eberhardt, G. Kalkoffen and C. Kunz, Phys. Rev. Lett. 41 (1978) 156. (Kr3d, Xe4d)

EK&83 J.M. Esteva, R.C. Karnatak, J.C. Fuggle and G.A. Sawatzky, Phys. Rev. Lett. 50 (1983) 910. (La3d)

EK&95a P. Erman, A. Karawajczyk, E. Rachlew-Kalne and C. Strömholm, J. Phys. B 28 (1995) 2069. (CO - C1s)

EK&95b A. Elafif, R.C. Karnatak, J.M. Esteva, C.M. Teodoresiu, M. Womes and E. Bouisset, Physica B 208 (1995) 115. (NaBr - Na1s; KBr - K1s)

EK&95c P. Erman, A. Karawajczyk, E. Rachlew, M. Stankiewicz and K.Y. Franzen, MAX report (1995) 170. (COS-C1s)

EK&96 P. Erman, A. Karawajczyk, U. Köble, E. Rachlew-Kallne, and K.Y. Franzen, Phys. Rev. A 53 (1996) 1407. (CO-C1s)

EK&97a P. Erman, A. Karawajczyk, E. Rachlew, M. Stankiewicz and K.Y. Franzen, Phys. Rev A 56 (1997) 2705. (COS - S2p, C1s)

EK&97b P. Erman, A. Karawajczyk, E. Rachlew, M. Stankiewicz and K.Y. Franzen, J. Chem. Phys. 107 (1997) 10867. (COS - S2p, C1s)

EK&97c P. Erman, A. Karawajczyk, E. Rachlew, M. Stankiewicz and K.Y. Franzen, Acta Phys. Polonica A. 91 (1997) 769. (COS - C1s, O1s, S2p)

EK&97d C. Engemann, G. Kohring, A. Pantelouris, J. Hormes, S. Grimme, S.D. Peyerimhoff, J. Clade, F. Frick and M. Jansen, Chem. Phys. 221 (1997) 189. (P_4O_6, P_4O_7, P_4O_6S, P_4O_6Se - P1s)

ELM70 D.L. Ederer, T. Lucarto and R.P. Madden, Phys. Rev. Lett. 25 (1970) 1537. (Li1s)

ELS74 D.L. Ederer, T.B. Lucarto and E.B. Soloman, Proc. 4th Int. Vac. UV Rad. Phys. Conf. (Hamburg, 1974) 245. (Ba4d)

EL&75 D.L. Ederer, T.B. Lucarto, E.B. Soloman, R.P. Madden and J. Sugar, J. Phys. B 8 (1975) L21. (Ba4d)

EL&98 L.E. Ennis, J.F. Lehmann, A.P Hitchcock, B. Cook and W.J. Leigh, (1998) unpublished. (C_6H_{10}, C_8H_{14} - C1s)

EM74 J.M. Esteva and G. Mehlman, Astrophys. J. 193 (1974) 747. (Mg 2p)

EP&87 W. Eberhardt, E.W. Plummer, I.W. Lyo, R. Murphy, R. Carr and W.K. Ford, J. Phys. 48 (1987) C9-679. (N_2 - N1s)

ER&92 W. Eberhardt, J.E. Rubensson, K.J. Randall, J. Feldhaus, A.L.D. Kilcoyne, A.M. Bradshaw, Z. Xu, P.D. Johnson and Y. Ma, Phys. Scripta T 41 (1992) 143 (N_2-N1s)

ES84 W. Eberhardt and T.K. Sham, Proc. of S.P.I.E. (1984) 143. (CO, $CH_2ClCHCl_2$, CH_3COOH,

$(CH_3)_2CO$,C_6H_6,C_6H_5Cl-C1s)

ES&83a W. Eberhardt, T.K. Sham, R. Carr, S. Krummacher, M. Strongin, S.L. Weng and D. Wesner, Phys. Rev. Lett. 50 (1983) 1038. (CO, $(CH_3)_2CO$ - C1s)

ES&83b W. Eberhardt, J. Stöhr, J. Feldhaus, E.W. Plummer and F. Sette, Phys. Rev. Lett. 51 (1983) 2370. (N_2-N1s)

ES&84 W. Eberhardt, T.K. Sham, R.G. Carr, S. Krummacher, M. Strongin, S.L. Weng and D. Wesner, NSLS Report (1984). ($(CH_3)_2CO$-C1s)

ETH99 I.G. Eustatiu, T. Tyliszczak and A.P. Hitchcock, Chem. Phys. Lett. 300 (1999) 676. (SF_6 - S2p, S2s)

ET&00 I.G. Eustatiu, T. Tyliszczak, A.P. Hitchcock, C.C. Turci, A.B. Rocha and C.E. Bielschowsky, Phys. Rev. A 61 (2000) 042505. (CO_2 – C1s, O1s)

EU&98 L.E. Ennis, S.G. Uruquhart and A.P Hitchcock, (1998) unpublished. ($C_2H_6O_2$,$C_3H_8O_2$ - C1s, O1s)

F68 V.A. Fomichev, Sov. Phys. Solid State 9 (1968) 2496 [Fiz. Tverd. Tela 9 (1967) 3167]. (BF_3 - B1s)

F72 U. Fano, Comments At. Mol. Phys. 3 (1972) 75. (review)

FA91 A. Flores-Riveros and H. Agren, Phys. Scripta 44 (1991) 442 (CO,CO_2 - C1s, O1s)

FA98 A. Filipponi and P D. Angelo, J. Chem. Phys. 109 (1998) 5356. (Br_2 - Br1s; $GeCl_4$ – Ge1s; BBr_3 – Br1s)

FB70 V.A. Fomichev and R.L. Barinskii, J. Struct. Chem. 11 (1970) 810 [Zh. Struk. Khim. 11 (1970) 875]. (BF_3, BCl_3 - B1s, Cl2p)

FB02 R. Feng and C.E. Brion, Chem. Phys. 284 (2002) 615. ($C_4H_{10}O$ – C1s)

FBN90 J.L. Ferrer, S. Bodeur and I. Nenner, J. El. Spect. 52 (1990) 711. ($Si(CH_3)_xCl_{4-x}$, x=0-4; Si1s; X=0-3 Cl1s)

FB&94 F. Federmann, O, Björneholm, A. Beutler and T. Möller, Phys. Rev. Lett. 73 (1994) 1549. (Ne,Ne_n-Ne1s)

FB&00 R. Feifel, F Burmeister et al. Phys. Rev. Lett. 85 (2000) 3133. (HCl – Cl2p)

FB&01 A De Fanis, H-J Beyer, K J Ross and J B West, J. Phys. B 34 (2001) 199. (Cs4d)

FC68 U. Fano and J. W. Cooper, Rev. Mod. Phys. 40 (1968) 441. (atoms - theory, review)

FCB99 R Feng, G. Cooper and C.E. Brion, Chem. Phys. 244 (1999) 127. (H_2S – S2p)

FCB00 R Feng, G. Cooper and C.E. Brion, Chem. Phys. 252 (2000) 359. (COS – C1s, S2p)

FCM96 I.W. Fomunung, Z. Chen and A.Z Msezane, Phys. Rev. A 53 (1996) 806. (CO_2 - C1s; SF_6 - S2p)

FD95 A. Filipponi and A. DiCicco, Phys. Rev. B 52 (1995) 15,135. (Br_2 - Br1s; CS_2 - S1s)

FDL93 G. Fronzoni, P. Decleva and A. Lisini, Chem. Phys. 174 (1993) 57. [$Ni(CO)_4$-Ni1s; $Fe(CO)_5$, $Fe(C_5H_5)_2$- Fe1s; $Cr(CO)_6$,$Cr(NO)_4$, CrO_2Cl_2-Cr2p]

FD&93 G. Fronzoni, P. Decleva, A. Lisini and M.Ohno J. Electron Spectrosc. 62 (1993) 245. [$Ni(CO)_4$-Ni2p;

$Fe(CO)_5$, $Fe(C_5H_5)_2$- Fe2p; $Cr(CO)_6$-Cr2p]

FE&86 J.L. Feldman, W.T. Elam, A.C. Ehrlich, E.F. Skelton, D.D. Dominguez, D.D.L. Chung and F.W. Lytle, Phys. Rev. B 33 (1986) 7961. (Br_2-Br1s)

FE&94 J.T. Francis, C. Enkvist, S. Lunell and A.P. Hitchcock, Can. J. Phys. 72 (1994) 879. (CO, C_2H_2, C_2H_4, C_6H_6 - C1s)

FE&99 K.Y. Franzen, P. Erman, A. Karawajczyk, E.Rachlew, P.A. Hatherly and M.Stankiewicz, J. Chem. Phys. 110 (1999) 3621. (CS_2 – C1s, S2p)

FF&96 H. Feist, M. Feldt, C. Gerth, M. Martins, P. Sladeczek and P. Zimmermann, Phys. Rev. A 53 (1996) 760. (Fe3p, Co3p, Ni3p)

FG&02 R. Feifel, F. Gel'mukhanov, A. Baev, H. Ågren, M.N. Piancastelli, M. Bässler, C. Miron, S. L. Sorensen, A. Naves de Brito, O. Björneholm, L. Karlsson, and S. Svensson, Phys. Rev. Lett. 89 (2002) 103002. (N_2 – N1s)

FH92 J.T. Francis and A.P. Hitchcock, J. Phys. Chem. 96 (1992) 6598. ($C_6H_4O_2$, C_6H_6O, $C_6H_6O_2$ - C1s, O1s)

FH94 J.T. Francis and A.P. Hitchcock, J. Phys. Chem. 98 (1994) 3650. ($C_6H_{10}O$, 1,2-;1,3-;1,4-$C_6H_8O_2$ - C1s, O1s)

FH&87 T.A. Ferrett, P.A. Heiman, H.G. Kerkhoff, U.E. Becker, D.W. Lindle and D.A. Shirley, Chem. Phys. Lett. 138 (1987) 607. (SO_2-S2p)

FH&96 M. Fujisawa, A. Harasawa, A. Agui, M. Watanabe, A. Kakizaki, S. Shin, T. Ishii, T. Kita, T. Harada, Y. Saitoh and S. Suga, Rev. Sci. Inst. 67 (1996) 345. (Ar2p, N_2 - N1s)

FH&97 A. Farhat, M. Humphrey, B. Langer, N. Berrah, J.D. Bozek and D. Cubaynes, Phys. Rev. A 56 (1997) 501. (Ar2p)

FKA99 R.F.Fink, M.Kivikonpolo and H. Aksela, J. Chem. Phys. 111 (1999) 10034. (HCl – Cl2p)

FKH94 J.T. Francis, N. Kosugi and A.P. Hitchcock, J. Chem. Phys. 101 (1994) 10429. (CO - C1s)

FK&00 R. Feifel, L. Karlsson et al. MaxLab Report (2000) 156. (CO – C1s)

FK&02 R. Feifel, L. Karlsson, M.-N. Piancastelli, R.F. Fink, M. Bässler, O. Björneholm, K. Wiesner, C. Miron, H. Wang, A. Giertz, S. L. Sorensen, A. Naves de Brito, S. Svensson, Phys. Rev A 65 (2002) 052701. (CO – C1s)

FL96 G. Fronzoni and A. Lisini, Chem. Phys. 207 (1996) 1. (n-C_nH_{2n}, n=3-6 - C1s)

FL00 X.W. Fan and K.T. Leung, Phys. Rev. A 62 (2000) 062703. (Ar2p)

FL01 X.W. Fan and K.T. Leung, J. Chem. Phys. 115 (2001) 2603. (SiF_4 – Si2p)

FL02 X.W. Fan and K.T. Leung, J. El. Spec. 132 (2002) 287. (C_2ClH_5 – C1s, Cl2p)

FL&86 T.A. Ferrett, D.W. Lindle, P.A. Heiman, H.G. Kerkhoff, U.E. Becker and D.A. Shirley, Phys. Rev. A 34 (1986) 1916. (SF_6-S1s)

FL&87 T.A. Ferrett, D.W. Lindle, P.A. Heiman, W.D. Brewer, U.E. Becker, H.G. Kerkhoff and D.A. Shirley, Phys. Rev. A 36 (1987) 3172. (Li1s)

FL&88 T.A. Ferrett, D.W. Lindle, P.A. Heiman, M.N. Piancastelli, P.H. Kobrin, H.G. Kerkhoff, U.E. Becker, W.D. Brewer and D.A. Shirley, J. Chem. Phys. 89 (1988) 4726. (SF_6-S2p)

FM92 Z. Felfli and S.T. Manson, Phys. Rev. Lett. 68 (1992) 1687 (Li1s)

FM&96 E. Fainelli, F. Marocci, R. Platania and L. Avaldi, J. Chem. Phys. 104 (1996) 3227. (NO - N1s)

FM&98 E. Fainelli, F. Marocci, R. Platania and L. Avaldi, J. Electron Spectrosc. 87 (1998) 169. (SF_6 - S2p, F1s)

FM&01 E. Fainelli, F. Marocci, R. Platania and L. Avaldi, J. Electron Spectrosc. 119 (2001) 81. (CCl_4 – Cl2p)

FN67 P. Feldman and R. Novick, Phys. Rev 160 (1967) 143. (Li1s)

FPH97 G. Faraci, A.R. Pennisi and J.L. Hazemann, Phys. Rev. B 56 (1997) 12553. (Kr1s)

FPS95a D.L. Foulis, R.F. Pettifer and P. Sherwood, Europhys. Lett. 29 (1995) 647. (Cl_2 - Cl1s)

FPS95b D.L. Foulis, R.F. Pettifer and P. Sherwood, Physica B 209 (1995) 68. (HCl - Cl1s)

FP&80 H. Friedrich, B. Pittel, P. Rabe, W.H.E. Schwarz and B. Sonntag, J. Phys. B 13 (1980) 25. (SiF_4 - Si2p)

FP&88 T.A. Ferrett, M.N. Piancastelli, D.W. Lindle, P.A. Heiman and D.A. Shirley, Phys. Rev. A 38 (1988) 701. (SiF_4 - Si2p, 2s)

FP&01 R . Flesch, A.A. Pavlychev, J.J. Neville, J. Blumberg, M. Kuhlmann, W. Tappe, F. Senf, O. Schwarzkopf, A.P. Hitchcock, and E. Rühl, Phys. Rev. Lett. 86 (2001) 3767. ($(N_2)_n$ – N1s)

FR&87 J. Feldhaus, A. Reimer, J. Schirmer, A,M, Bradshaw, H.G. Kerkoff, B. Langler, D. Szostak, R. Wehlitz and W. Braun, J. Phys. 48 (1987) C9-773. (CO-C1s,O1s; N_2-N1s)

FSD99 G. Fronzonni, M. Stener and P. DeCleva, Chem. Phys. 248 (1999) 127. (ClF, ClF_3 – Cl2p, Cl1s)

FSL91 R.E. Farren, J.A. Sheehy and P.W. Langhoff, Chem. Phys. Lett. 177 (1991) 307. (C_2H_x, x=2,4,6 - C1s)

FS&79 H. Friedrich, B. Sonntag, P. Rabe, W. Butscher and W.H.E. Schwarz, Chem. Phys. Lett. 64 (1979) 360. (SiH_4-Si2p; PH_3- P2p)

FS&95 L. Ferrand-Tanaka, M. Simon, R. Thissen, M. Lavollée and P. Morin, Rev. Sci. Inst. 66 (1995) 1587. (N_2O - N1s)

FS&96 L. Ferrand-Tanaka, M. Simon, R. Thissen, M. Lavollée and P. Morin, Rev. Sci. Inst. 67 (1996) 358. (N_2O - N1s)

FS&98 G. Fronzoni, M. Stener, P. Decleva and G.De Alti, Chem. Phys. 232 (1998) 9. (HCl - Cl2p, Cl1s)

FS&02 A. De Fanis, N. Saito, H. Yoshida, Y. Senba, Y. Tamenori, H. Ohashi, H. Tanaka, and K. Ueda, Phys. Rev. Lett. 89 (2002) 243001. (Ne1s)

FTD76 U. Fano, C.E. Theodosiou and J.L. Dehmer, Rev. Mod. Phys. 48 (1976) 49. (review - electron optical effects of atomic fields)

FT&93 A. Filipponi, T.A. Tyson, K.O. Hodgson and S. Mobilio, Phys. Rev. 48 (1993) 1328. (SiH_4, $SiCl_4$, $Si(CH_3)_4$, SiF_4 - Si1s)

FT&95 J.T. Francis, C.C. Turci, T. Tyliszczak, G.G.B. de Souza, N. Kosugi and A.P. Hitchcock, Phys. Rev. A 52 (1995) 4665. (SF_6 - S2p, S2s, F1s)

FT&99 B.O. Fisher, M.K. Thomas, P.A. Hatherly, K Codling, M Stankiewicz, A Karawajczyk and M. Roper, J. Phys. B. 32(1999) 4437. (SO_2 – O1s, S2p)

FZ&70 V.A. Fomichev, T.M. Zimkina, A.S. Vinogradov and A.M. Evdokimov, J. Struct. Chem. 11 (1970) 626 [Zh. Struk. Khim. 11 (1970) 676]. [$SiCl_x(CH_3)_{4-x}$ - Si2p]

G51 H. Glaser, Phys. Rev. 82 (1951) 616. ($GeCl_4$-Ge1s)

G70 E. Gilberg, Z. Phys. 236 (1970) 2. (HCl - Cl1s)

G77 E.S. Gluskin, Proc. VUV-5 (Montpellier, 1977) I-117. (Cl_2 - Cl2p)

G82 T. Gustafsson, Proc. 8th Int. Conf. Atom. Phys., (Goteberg, Sweden,1982) 355. (N_2-N1s)

G83 S.J. Gurman, J. Phys. C 16 (1983) 2987. (N1s)

G91 T.A. Green, *Boron Rich Solids*, AIP Conf. Proc. 231 (1991) 42. ($C_2B_{10}H_{12}$ - B1s)

G94 F.M.F. de Groot, J. El. Spec. 67 (1994) 529. (review; $FeCp_2$ - Fe2p)

G00 T.W Gorczyca, Phys. Rev. A 61 (2000) 024702-1. (Ne1s)

GA95 F.Kh. Gel'mukhanov and H. Agren, J. Phys. B 28 (1995) 3699. ($(CH_2)_n$, n=2,4,11)

GA97 F.Kh. Gel'mukhanov and H. Agren, Phys. Rev A 56 (1997) 2676. (CO - C1s, O1s)

GA&80 A. Gerwer, C. Asaro, B.V. McKoy and P.W. Langhoff, J. Chem. Phys. 72 (1980) 713. (O_2 - O1s)

GA&97 A. Gottwald, S. Anger, J.M. Bizau, D. Rosenthal and M. Richter, Phys. Rev. A 55 (1997) 3941. (Ca3d)

GB81 M. Galan and C.F. Bunge, Phys. Rev. A 23 (1981) 1624. (Li1s)

GB&83 L.J. Garvin, E.R. Brown, S.L. Carter and H.P. Kelly, J. Phys. B 16 (1983) L269. (Mn3p)

GBP82 D.C. Griffin, C. Bottcher and M.S. Pindzola, Phys. Rev. A 25 (1982) 1374. (Ti2p, Zr3p, Hf4p)

GC&88 F.A. Grimm, T.A. Carlson, J. Jimenez Mier, B. Yates, J.W. Taylor and B.P. Pullen, J. EL. Spect. 47 (1988) 257. (N_2O - N1s,O1s)

GC&92 X. Guo, G. Cooper, W.F. Chan, G.R. Burton and C.E. Brion, Chem. Phys. 161 (1992) 471 (SiF_4 - Si2p, Si2s)

GC&03 M.L. Gordon, G. Cooper, T. Araki, C. Morin, H. Ikeura-Sekiguchi, C.C. Turci and A.P. Hitchcock, J. Phys. Chem. A (2003) submitted ($C_2H_5NO_2$, $C_4H_8N_2O_3$ - C1s, N1s, O1s)

GDT97 F. Guillot, C. Dezarnaud-Dandine and M. Tronc, Chem. Phys. 224 (1997) 281. ($GeCl_4$, $SnCl_4$, $AsCl_3$, PCl_3 - Cl 2p ; $GeCl_4$ - Ge2p; $SnCl_4$ - Sn2p; $AsCl_3$ - As2p; PCl_3 - P1s)

GD&95 F. Guillot, C. Dezarnaud-Dandine, M. Tronc, A. Lisini, P. Decleva and G. Fronzini, Chem. Phys. 191 (1995) 289. ($Mo(CO)_6$, MoF_6 - Mo2p, Mo1s)

GD&96 F. Guillot, C. Dezarnaud-Dandine, M. Tronc, A. Modelli, A. Lisini, P. Decleva and G. Fronzini, Chem. Phys. 205 (1996) 359. (GeH_4, $GeCl_4$, $GeMe_3Cl$ - Ge 2p; $GeCl_4$ - Ge3p,Cl2p,Cl1s)

GE&89 J. Gus, D.E. Ellis, E. Alp, L. Soderholm and G.K. Shenoy, Phys. Rev. B 39 (1989) 6125. (UCl_4 - U3d, U3p)

GE&92 J.A. de Gouw, J. van Eck, J. van der Weg and H.G. Herdenan, J. Phys. B 25 (1992) 2007.(Ar2p)

GE&94 J.A. de Gouw, J. van Eck, A.Q. Wollrabe, J. van der Weg and H.G.M. Heidemann, J.Phys. B 27 (1994) 3915. (Ar2p, Kr3d)

GE&95 J.A. de Gouw, J. van Eck, J. van der Weg and H.G.M. Heidemann, J.Phys. B 28 (1995) 1761. (Ar2p)

GGL72 F.A. Gianturco, C. Guidotti and U. Lamanna, J. Chem. Phys. 57 (1972) 840. (SF_6 - S2p, S1s)

GG&96 P. Glans, K. Gunnelin, P. Skytt, J.H. Guo, N. Wassdahl, J. Nordgren, H. Agren, F. Kh. Gel'mukhanov, T. Warwick and E. Rotenberg, Phys. Rev. Lett. 76 (1996) 2448. (O_2 - O1s)

GG&98a K. Gunnelin, P. Glans, P. Skytt, J.H. Guo, J. Nordgren, H. Agren, Phys. Rev. A 57 (1998) 864. (CO_2 - O1s)

GG&98b A. Gottwald, Ch.Gerth, M Groen, M.Richter and P. Zimmermann, J.Phys. B 31 (1998) 3875. (Pr4d, Nd4d)

GG&99 K. Gunnelin, P. Glans, J.E. Rubensson, C. Sathe, J. Nordgren, Y. Li, F.Gel'mukhanov and H. Agren, Phys. Rev. Lett. 83 (1999) 1315. (C_2H_2, C_2H_4, C_2H_6 – C1s)

GC&02 A.V. Golovin and N.A. Cherepkov, J. Phys. B 35 (2002) 3191. (CO-C1s,O1s)

GH01 M.L. Gordon and A.P. Hitchcock, unpublished ($C_3H_6NO_2$, $C_8H_9NO_2$ - C1s, N1s, O1s)

GHF81 E. Gilberg, M.J. Hanus and B. Foltz, Rev. Sci. Inst. 52 (1981) 662. (Ar 2p)

GH&94 F.M.F. de Groot, Z.W. Hu, M.F. Lopez, G. Kaindl, F. Guillot and M. Tronc, J. Chem. Phys. 101 (1994) 6570. (MoF_6 - Mo2p)

GK86 P.W. Goalwin and A.B. Kunz, Phys. Rev. B 34 (1986) 2140. (CH_4-C1s)

GKM77a E.S. Gluskin, A.A. Krasnoperova and L.N. Mazalov, J. Struct. Chem. 18 (1977) 156 [Zh. Struk. Khim. 18 (1977) 185]. (SF_6 - S2p)

GKM77b E.S. Gluskin, A.A. Krasnoperova and L.N. Mazalov, J. Struct. Chem. 18 (1977) 529 [Zh. Struk. Khim. 18 (1977) 665]. (Cl_2 - Cl2p)

GK&91 F.X. Gadea, H. Koppel, J. Schirmer, L.S. Cederbaum, K.J. Randall, A.M. Bradshaw, Y. Ma, F. Sette and C.T. Chen, Phys. Rev. Lett 66 (1991) 883. (C_2H_4 - C1s)

GM98 Z.W. Gortel and D. Menzel, Phyas. Rev. A 58 (1998) 3699. (O_2 – O1s)

GM00 T.W. Garcyyca and B.M. McLaughlin, J. Phys.B 33 (2000) L859. (O1s)

GMK77 F.K. Gel'mukhanov, L.N. Mazalov and A.V. Kondratenko, Chem. Phys. Lett. 46 (1977) 133. (CO-C1s,O1s)

GMT85 J.C. Giordan, J.H. Moore and J.A. Tossell, J. Am. Chem. Soc. 107 (1985) 5600. (C_6H_6-C1s)

GM&75 E.S. Gluskin, L.N. Mazalov, A.P. Sadovskii and D.A. Zhogolev, J. Struct. Chem. 16 (1975) 972 [Zh. Struk. Khim. 16 (1975) 1061]. (N_2O-N1s)

GM&76 E.S. Gluskin, L.N. Mazalov, A.A. Krasnoperova, V.A. Kochubei, S.I. Mishnev, A.N. Shrinskii, E.M. Trahbtenberg and G.M. Tumaikin, Bull. Acad. Sci. USSR Phys. Ser. 40 (1976) No. 2, p.1 [Izv. Akad. Nauk. SSSR Fiz. Ser. 40 (1976) 226]. (Kr3d, $SiCl_4$ - Si2p, $POCl_3$ - P2p)

GN&83 M.M. Gofman, V.I. Nefedov, V.L. Kraizman and R.V. Vedrinski, J. Electron Spectrosc. 32 (1983) 59. (N_2-N1s; CO-C1s,O1s; SF_6-S2p,F1s)

GP&98 E.Gedat, R. Puttnoy, M. Domke and G. Kaindl, J. Chem. Phys. 109 (1998) 4471. (SO_2 – S2p)

GOI97 T. Gejo, K. Okada and T. Ibuki, Chem. Phys. Lett. 272 (1997) 497. (O_3 - O1s)

GSM73 E.S. Gluskin, A.P. Sadovskii and L.N. Mazalov, J. Struct. Chem. l4 (1973) 685 [Zh. Struk. Khim. 14 (1973) 739]. (NO, N_2, N_2O - N1s)

GSS83 F.A. Gianturco, E. Semprini and F. Stefani, Nuovo Cimento D 2 (1983) 687. (BF_3-B1s)

GS&96 P. Glans, P. Skytt, K. Gunnelin, J.H. Guo and J. Nordgren, J. Electron Spectrosc. 82 (1996) 192. (N_2-N1s)

GT91 R.J. Gould and Y.D. Jung, Astrophys. J. 373 (1991) 271. (C,N,O,Ne,Mg,Si,S,P - 1s)

GTM98 Z.W. Gortel, R. Techima and D. Menzel, Phys. Rev. A 58 (1998) 1225. (N_2-N1s; CO-C1s, O1s)

GTM99 Z.W. Gortel, R. Techima and D. Menzel, Phys. Rev. A 60 (1999) 2159. (HCl – Cl2p)

GT&03 M.L.Gordon, D.Tulumello, G. Cooper,A.P. Hitchcock, P. Glatzel, O.C. Mullins and U. Bergmann, J. Phys. Chem. B (2003) (submitted). (C_6H_6, $C_{10}H_8$, $C_{14}H_{10}$, $C_{14}H_{10}$, $C_{18}H_{12}$, $C_{18}H_{12}$ - C1s)

GV95 Z.W. Gortel and J.P. de Villiers, Chem. Phys. Lett. 245 (1995) 41. (N_2 - N1s)

GYA96 F.Kh. Gel'mukhanov, L. Yang and H. Agren, J. Chem. Phys. 105 (1996) 5224. ($H(C_2H_2)_nH$, n=1-10 - C1s)

H72 J.E. Hansen, J. Phys. B 5 (1972) 1083. (La4d)

H77a J.B. Hastings, Proc. VUV-5 (Montpellier, 1977) I-61. (Ar1s)

H77b P.J. Hay, J. Am. Chem. Soc. 99 (1977) 1013. (SF_6 - S2p, F1s)

H86a I. Harrison, PhD thesis (1986), University of Manchester (SF_6-S2p)

H86b A.P. Hitchcock, Proc. EXAFS IV, J. Phys. (Paris) 47 C-8 (1986) 575. (C_3H_6, C_3H_8, C_4H_8, C_4H_{10}, C_5H_8-C1s; CF_3OOCF_3-C1s,O1s,F1s; C_4H_4S, C_4H_8S-C1s,S2p,S1s)

H87 R.G. Hayes, J. Chem. Phys. 86 (1987) 1683. (CS_2-C1s,S2p)

H89 A.P. Hitchcock, Ultramicroscopy, 28 (1989) 165. (review - N_2, N_2O, - N1s; CO,CH_4, CH_3OH, C_6H_{12}, C_6H_6, C_6F_6 - C1s)

H90a A.P. Hitchcock, Phys. Scripta T31 (1990) 159. (Review: Ne1s; NH_3, N_2H_4, N_2 - N1s; PCL_3 - Cl2p; C_2H6, $C_2H_3F_3$, CF_4, C_2F_6, C_2F_4, C_6F_6, CO, $Mn(CO)_5Br$, $Fe(CO)_5$, $Co_2(CO)_8$, $Ni(CO)_4$, MCp_2 (M = Fe,Co,Ni), C_5H_6 - C1s; $CF_3O_2CF_3$ - O1s)

H90b D.M. Hanson, Adv. Chem. Phys. 77 (1990) 1. (review; O_2-O1s; N_2O-N1s, O1s)

H91 A.P. Hitchcock, unpublished) (C_6H_6, C_6H_8, 1,4-C_6H_{10}, 1,3-C_6H_{10}, C_6H_{12}-C1s) (see also **HR89**)

H92a A.P. Hitchcock, unpublished. (C_2Cl_3H, $C_2Cl_2H_4$ - C1s, Cl2p; C_7H_5N - C1s, N1s; NO - N1s)

H92b A.P. Hitchcock, *Collision Processes of Ions, Positrons, Electrons and Photons with Matter*, Proc. ELAF-91 (World Sci., 1992) 104. (CO, $Fe(CO)_5$, C_7H_{10}, $C_7CoH_5O_2$, C_8H_{12}, $C_8H_9F_3$, $C_8Co_2O_8$, $C_9H_{10}O_2$, $C_{10}CoH_{10}$ - C1s)

H98 G.H. Ho, Chem. Phys. 226 (1998) 101. (CCl_4 - Cl2p)

H00 A.P. Hitchcock, J. El. Spec. 112 (2000) 9. (review; HBO, HBS – B1s; HBS, H_2S – S2p; CO-C1s; $C_6H_6N_2O_2$ – C1s; $C_9H_{10}O_2$, $C_{10}H_{10}O_4$ – C1s; SF_6 – S2p; CO_2 – C1s)

H01 A.P. Hitchcock, unpublished ($C_3H_6O_3$ - C1s, O1s)

HA&95 P.A. Hatherly, J. Adachi, E. Shigemasa and A. Yagashita, J. Phys. B 28 (1995) 2643 (CO - C1s, O1s)

HA&97 M.J. Hubin-Franskin, H. Aouni, D. Duflot, F. Motte-Tollet, C. Hannay, L.F. Ferreira and G. Tourillon, J. Chem. Phys. 106 (1997) 35. (C_2H_3CN, $C_4H_2N_2$, C_4H_5N - C1s, N1s)

HA&98a D.L. Hansen, M.E. Arrasate, J. Cotter, G.R. Fisher, K.T. Leung, J.C. Levin, R. Martin, P. Neill, R.C.C. Perera, I.A. Sellin, M. Simon, Y. Uehara, B. Vanderford, S.B. Whitfield and D.W. Lindle, Phys. Rev. A 57 (1998) R2608. (HCl - Cl 1s)

HA&98b D.L. Hansen, G.B. Armen, M.E. Arrasate, J. Cotter, G.R. Fisher, K.T. Leung, J.C. Levin, R. Martin, P. Neill, R.C.C. Perera, I.A. Sellin, M. Simon, Y. Uehara, B. Vanderford, S.B. Whitfield and D.W. Lindle, Phys. Rev. A 57 (1998) R4090. (HCl - Cl 1s)

HA&98c D.L. Hansen, M.E. Arrasate, J. Cotter, G.R. Fisher, O. Hemmers, K.T. Leung, J.C. Levin, R. Martin, P. Neill, R.C.C. Perera, I.A. Sellin, M. Simon, Y. Uehara, B. Vanderford, S.B. Whitfield and D.W. Lindle, Phys. Rev. A 58 (1998) 3757. (HCl, DCl - Cl 1s; H_2S, D_2S - S 1s)

HB71 W. Hayes and F.C. Brown, J. Phys. B 4 (1971) L85. (BF_3,BCl_3 - B1s)

HB72 W. Hayes and F.C. Brown, Phys. Rev. A 6 (1972) 21. (SiH_4 - Si2p; GeH_4 - Ge2p; HCl - Cl2p; PH_3 -P2p; H_2S - S2p)

HB77 A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 10 (1977) 317. (C_2H_2, C_2H_4, C_2H_6, C_6H_6 - C1s)

HB78a A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 13 (1978) 193. (CH_3X, (X=F,Cl,Br,I) - C1s, F1s, Cl2p, Br3d, I4d)

HB78b A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 14 (1978) 417. (CH_xCl_{4-x} (x=0-4) - C1s, Cl2p)

HB78c A.P. Hitchcock and C.E. Brion, Chem. Phys. 33 (1978) 55. (SF_6 - S2p, S2s, F1s)

HB79a A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 15 (1979) 401. HCN -C1s, N1s)

HB79b A.P. Hitchcock and C.E. Brion, Chem. Phys. 37 (1979) 319 (HCN, C_2N_2 - C1s, N1s)

HB79c A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 17 (1979) 139. (CH_3X, X=F,Cl,Br,I - C1s)

HB80a A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 18 (1980) 1. (CO -C1s,O1s; N_2 - N1s; O_2 - O1s)

HB80b A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 19 (1980) 231. (H_2CO, CH_3CHO, $(CH_3)_2CO$ - C1s, O1s)

HB80c A.P. Hitchcock and C.E. Brion, J. Phys. B. 13 (1980) 3269. (Nels)

HB81a A.P. Hitchcock and C.E. Brion, J. El. Spectrosc. 22 (1981) 283. (C_2H_2-C1s)

HB81b A.P. Hitchcock and C.E. Brion, J. Phys. B. 14 (1981) 4399. (HF, F_2 - F1s)

HBC96 A.P. Hitchcock, C.E. Brion and R.G. Cavell, unpublished. (PF_3, CF_3PCl_2, PCl_3 - P2p, Cl2p, F1s)

HBK71 W. Hayes, F.C. Brown and A.B. Kunz, Phys. Rev. Lett. 27 (1971) 774. (SiH_4,SiF_4 - Si2p; GeH_4 - Ge3p)

HBT87 A.P. Hitchcock, S. Bodeur and M. Tronc, Chem. Phys. 115 (1987) 93. (SCl_2, S_2Cl_2, $SOCl_2$, SO_2Cl_2 - S1s, Cl1s)

HBT89 A.P. Hitchcock, S. Bodeur and M. Tronc, Physica 158 (1989) 257. ($S(CH_3)_2$, $S_2(CH_3)_2$, SO_2F_2, SOFCl, SO_2Cl_2 - S1s)

HBW78 A.P. Hitchcock, C.E. Brion and M.J. Van der Wiel, J. Phys. B 11 (1978) 3245. (SF_6 - S2p)

HBW79 A.P. Hitchcock, C.E. Brion and M.J. Van der Wiel, Chem. Phys. Lett. 66 (1979) 213. (CO_2 - C1s; N_2O-N1s)

HB&84 A.P. Hitchcock, S. Beaulieu, T. Steel, J. Stöhr and F. Sette, J. Chem. Phys. 80 (1984) 3927. (CH_4,C_2H_6,C_4H_6,C_4H_8,C_4F_8-C1s)

HB&89 J.E. Hansen, J. Brilly, E.T. Kennedy and G.O. Sullivan, Phys. Rev. Lett. 63 (1989) 1934. (Xe, Cs^+, Ba^{2+}, La^{3+} - 3d)

HB&90 W. Habenicht, H. Barter, K. Muller-Dethlefs and E.W. Schlag, Phys. Scripta 41 (1990) 814. (N_2O - N1s)

HB&91 W. Habenicht, H. Barter, K. Muller-Dethlefs and E.W. Schlag, J. Chem. Phys. 95 (1991) 6774. (CF_2CH_2, CF_3CH_3 - C1s)

HB&97 Y.F. Hu, G.M. Bancroft, J. Korvonen, E. Nommiste, A. Kivimaki, H. Aksela, S. Aksela and Z.F. Liu, Phys. Rev. A 56 (1997) R3342. (HBr - Br3d)

HC96 C.H. Hu and D.P. Chong, Chem. Phys. Lett. 262 (1996) 729. (CO, C_2H_2, C_2H_4, C_6H_6 - C1s; CH_2O - C1s, O1s; CHFO, CF_2O - C1s, O1s, F1s)

HC&87a J. Hormes, R. Chauvistre, U. Kuetgens, U. Fischer and J. Ruppert, J. Phys. (Paris) 48 C-9 (1987) 1113. $(CH_3)_xSiCl_{4-x}$, x=0-4 - Si1s)

HC&87b W. Habenicht, L.A. Chewter, M. Sander, K. Muller-Dethlefs and E.W. Schlag, J. Phys. 48 (1987) C9-741. (CF_2CH_2, CF_3COCH_3, $CF_3CH_2NH_2$ - C1s)

HC&95 P.A. Hatherly, K. Codling, M. Stankiewicz and M. Roper, J. Phys. B 28 (1995) 3249. (CO_2 - C1s, O1s)

HC&96 P.A. Hatherly, K. Codling, M. Stankiewicz and M. Roper, J. Electron Spectrosc. 79 (1996) 407. (CO_2 - C1s, O1s)

HC&99 D.L. Hansen, J. Cotter, G.R. Fisher, K.T. Leung, R. Martin, P. Neill, R.C.C. Perera, M. Simon, Y. Uehara, B. Vanderford, S.B. Whitfield and D.W. Lindle, J. Phys.B 32 (1999) 2629. (CH_3Cl - Cl 1s)

HC&00 N. Haack, G. Ceballos, H. Werde, K. Baberschke, D. Arvanitis, A.L. Ankudinov and J.J. Rehr, Phys.Rev. Lett. 84 (2000) 614. (C_2H_2, C_2H_4, C_2H_6 – Cs)

HD&91 A.P. Hitchcock, R.S. DeWitte, J.M. Van Esbroeck, P. Aebi, C.L. French, R.T. Oakley and N.P.C. Westwood, J. Electron Spectrosc. 57 (1991) 165. ($C_6H_4N_2S_x$, x=1-3 - C1s, N1s, S2p, S2s, S1s)

HD&92 G. Hagerow, W. Denzer, H.W. Jochims and H. Baumgartel, Chem. Phys. Lett. 195 (1992) 267 (BF_2Cl, $BFCl_2$ - B1s)

HD&99 C. Hannay, D. Duflot, J.P. Flament and M.J. Hubin-Franskin, J. Chem. Phys. 110 (1999) 5600. (C_5H_5N, $C_4H_4N_2$ – C1s, N1s)

HE90 R.G. Hayes and W. Eberhardt, Phys. Scripta 41 (1990) 449. (CS_2, C_4H_4S - S2p)

HE91 R.G. Hayes and W. Eberhardt, J. Chem. Phys. 94 (1991) 397. (C_2H_4S, C_4H_8S - S2p,C1s)

HE&98 A.P. Hitchcock, I.G. Eustatiu, J.T. Francis and C.C. Turci, J. Electron Spectrosc. 88-91 (1998) 77. (SF_6 - S2s; C_7H_8 - C1s)

HE&01 A.P. Hitchcock, L.E. Ennis, J.F. Lehmann and M.K. Denk, J. Electron Spectrosc. 114-116 (2001) 1037. ($C_5H_{10}N_2$, $C_{10}H_{20}N_2$, $C_{10}H_{22}N_4$ – C1s, N1s; HBO-B1s, O1s, HBS-B1s, S2p; H_2S-S2p)

HFK75 J.E. Hansen, A.W. Fliflet and H.P. Kelly, J. Phys. B 8 (1975) L127. (Ba4d)

HFM87 A.P. Hitchcock, P. Fischer and R. McLaren, *Giant Resonances in Atoms, Molecules and Solids*, Proc. NATO ASI Ser. B: Physics 151 (1987) 281. (CH_4, CF_4 - C1s; C_nF_{2n+2}, n=2-6, C1s,F1s; C_2HF_{4-x}, x=0-4, C_6HF_{6-x}, x=0-6 - C1s)

HF&87 A.P. Hitchcock, P. Fischer, A. Gedanken and M.B. Robin, J. Phys. Chem. 91 (1987) 531. ($C_6H_xF_{6-x}$,x=0,6 - C1s, F1s)

HF&91 A. Hiraya, K. Fukui, P.K. Tseng, T. Murata and M. Watanabe, J. Phys. Soc. Jpn., 60 (1991) 1824. (Ne1s)

HF&93 A.P. Hitchcock, J.T. Francis, S.G. Urquhart, W. Leigh, E. Ruhl and N. Kosugi, unpublished. (O_2 - O1s)

HF&00 T. Hyaishi, Y. Fujita, M. Izumisawa, T. Tanaka, E. Murakami, E. Shigemasa, A. Yagashita and Y. Morioka, J. Phys. B 33 (2000) 37. (Kr1s)

HG76 M.J. Hanus and E. Gilberg, J. Phys. B 9 (1976) 137. (C_2H_5C1, C_2H_3Cl, CH_3Cl, CF_2Cl_2 - Cl1s)

HG&97 F. Heiser, O. Gessner, J. Viefhaus, K. Wieliczek, R. Hentges and U. Becker, Phys. Rev. Lett. 79 (1997) 2435. (CO - C1s)

HHS86 A.P. Hitchcock, J.A. Horsley and J. Stöhr, J. Chem. Phys. 85 (1986) 4835. (C_4H_4S, C_4H_8S - C1s, S2p, S2s, S1s)

HH99 A. Hibbert and J.E. Hansen, J. Phys. B 32 (1999) 4133. (Ca3p)

HH&93 O. Hemmers, F. Heiser, J. Eiben, R. Wehlitz and U. Becker, Phys. Rev. Lett. 71 (1993) 987. (CO-C1s)

HH&94 O. Hemmers, F. Heiser, J. Eiben, R. Wehlitz and U. Becker, Nucl. Inst. Meth. B 87 (1994) 209. (CO-C1s)

HH&95 C. Hannay, J. Heinesch, U. Kleyens and M.J. Hubin-Franskin, Meas. Sci. Tech. 6 (1995) 1140. (SF_6 - S2p)

HH&96 C. Hennig, K.H. Hallmeier, A. Bach, S. Bender, R. Franke, J. Hormes and R. Szargan, Spectrochim. Acta 52 (1996) 1079. (C_3H_5NO, C_3H_3SO, C_4H_5N, C_4H_7N – N1s)

HH&98 C.W. Hutchings, A.P. Hitchcock, A.T. Wen, S.D. Hwang, J.A. Glass, J.T. Spencer, X.F. Hu, G.M. Bancroft and P.A. Dowben, J. Electron Spectrosc. 94 (1998) 187. (C_3H_9P, $C_8H_{18}PCl$, PCl_3 - P2p, P2s, Cl2p, Cl2s)

HH&99 O. Hemers, F. Heiser, J. Viefhaus, K. Wieliczek and U. Becker, J. Phys. B 32 (1999) 3769. (CO – C1s)

HI86 A.P. Hitchcock and I. Ishii, Proc. EXAFS IV, J. Phys. (Paris) 47 C-8 (1986) 199. (CF_4,C_6H_6,C_6H_{12}-C1s; CO,CO_2-C1s,O1s - EXELFS)

HI87 A.P. Hitchcock and I. Ishii, J. Electron Spectrosc. 42 (1987) 11. (CH_4, C_2H_6, C_3H_8, iso,n-C_4H_{10}, n-,iso-,neo-C_5H_{12}, C_6H_{14} - C1s)

HI88a A.P. Hitchcock and I. Ishii, unpublished. (C_5H_8O-C1s,O1s; $C_{10}H_{16}$ (adamantine)-C1s; $C_{10}F_{16}$-C1s,F1s (perfluoro-adamantine); CH_3CCH, $C_{10}H_{22}O$-C1s (decyl alcohol), $C_5H_{10}O$ - tetrahydropyran)

HI88b A.P. Hitchcock and I. Ishii, unpublished. (COS - C1s,S2p,O1s; CO_2-O1s; CF_4 -C1s, F1s; EXELFS: see also **HI86**, **HW&90**)

HIR89 A.P. Hitchcock, I. Ishii and M.B. Robin, unpublished (N_2H_4-N1s; N_2F_4 - N1s, F1s; CF_3NO-C1s,N1s, O1s,F1s)

HJ&87 G. Hagerow, H.W. Joachim, S. Bernstorff and H. Baumgartel, BESSY report (1987) 161. (BF_3 - B1s)

HJ&02 A.P. Hitchcock, S. Johnston, T. Tyliszczak, C.C. Turci, M. Barbatti, A.B. Rocha and C.E. Bielschowsky, J. Electron Spectrosc. Rel. Phe. 123 (2002) 303. (C_2H_2, C_2H_2 – C1s)

HK83 J.B. Hastings and V.O. Kastroun, Nucl. Inst. Meth. 208 (1983) 815. (Kr1s)

HK86 I. Harrison and G.C. King, J. Phys. B 19 (1986) L447. (CO-C1s)

HK87 I. Harrison and G.C. King, J. Electron Spectr. 43 (1987) 155. (C_2H_4, CO_2, COS, CS_2-C1s; N_2O-N1s)

HKA88 I. Harrison, G.C. King and L. Avaldi, J. Phys. B 21 (1988) 4015. (CO-C1s)

HKR86 J. Hormes, U. Kuetgens and I. Ruppert, Abstr.-EXAFS IV (1986). (SCl_2-S1s)

HK&69a R. Haensel, G. Keitel. P. Schreiber and C. Kunz, Phys. Rev. 188 (1969) 1375. (Kr3d, Xe4d - solid, gas)

HK&69b R. Haensel, G. Keitel. P. Schreiber and C. Kunz, Phys. Rev. Lett. 22 (1969) 398. (Xe4d - solid, gas)

HK&71 R. Haensel, G. Keitel, N. Kosuch, U. Nielsen and P. Schreiber, J. Phys. 32 (1971) C4-236. (Ar2p)

HK&92 B.A. Hammel, D.R. Kania, F. Rogers, C.A. Iglesias, R.W. Lee, J.F. Seeley, C.N. Brown and J.M. Edwards, Europhysics Lett. 20 (1992) 319. (C1s)

HK&98 A. Hiltunen, T. Kyisil, J. Mursu, O.P. Sairanen, H. Aksela and S. Aksela, J. El. Spec. 87 (1998) 203. (Ar2p)

HL81 M.H. Hecht and I. Lindau, Phys. Rev. Lett. 47 (1981) 821. (Ba4d)

HLD91 A.P. Hitchcock, S. Lee and P.T. Dowben, (1991) unpublished. ($B_5C_{19}FeH_{17}O_2P$, $B_5C_{12}H_{18}P$ - B1s, C1s, Fe2p,3p, P2p)

HL&87 P.A. Heiman, D.W. Lindle, T.A. Ferrett, S.H. Liu, L.J. Medhurst, M.N. Piancastelli, D.A. Shirley, U.E. Becker, H.G. Kerkoff, B. Langler, D. Szostak and R. Wehlitz, J. Phys. B 20 (1987) 5005 (Ar2p, Kr3d, Xe4d)

HL&88 A.P. Hitchcock, P. Lablanquie, P. Morin, E. Lizon A Lugrin, M. Simon, P. Thiry and I. Nenner, Phys. Rev. A 37 (1988) 2448. (CO-C1s,O1s)

HL&92 D.M. Hanson, D.A. Lapiano-Smith, K. Lee, C.J. Ma and D.Y. Kim, Chem. Phys. 162 (1992) 439 (O_2-O1s)

HM94 A.P. Hitchcock and D.C. Mancini, J. Electron Spectrosc. 67 (1994) 1. (C_2H_2 - C1s; CF_4 - C1s, F1s)

HMS90 W. Habenicht, K. Muller-Dethlefs and E.W. Schlag, J. Electron Spect. 52 (1990) 697. (Ar2p, Ne1s)

HM&84 T. Hayaishi, Y. Morioka, Y. Kageyoma, M. Watanake, I.H. Suzuki, A. Mikuni, G. Isoyama, S. Asaoka and M. Nakamura, J. Phys. 17 (1984) 3511. (Ar2p, Kr3d, Xe4d)

HM&86 T. Hayaishi, Y. Morioka, T. Akahori, M. Watanabe, A. Yagashita and M. Nakamura, Z. Phys. D 4 (1986) 25. (Kr3p, Xe4p)

HM&87 D. Haneschuck, M. Meyer P. Pahler, T. Prescher, M. Richter, B. Sonntag and H.E. Wenzel, J. Phys. 48 (1987) C9-539. (La4d)

HM&88 T. Hayaishi, E. Murakani, A. Yagashita, F. Koike, Y. Morioka and J.E. Hansen, J. Phys. B 21 (1988) 3203. (Ar2p)

HM&89 A.P. Hitchcock, P. Morin, E. Lizon a Lugrin, M. Simon and I. Nenner, unpublished (CH_3CN - C1s,N1s; CF_3OOCF_3 - C1s,O1s,F1s)

HM&90 D.M. Hanson, C.I. Ma, K. Lee, D. Lapiano-Smith and D.Y. Kim, J. Chem. Phys. 93 (1990)9200. (N_2O - N1s)

HM&91a T. Hayaishi, E. Murakami, Y. Morioka, H. Aksela, S. Aksela, E. Shigemasa and A. Yagashita, Phys. Rev. A 44 (1991) R2771. (Kr3d, Xe4d)

HM&91b P.A. Heimann, L.J. Medhurst, M.R.F. Siggel, D.A. Shirley, C.T. Chen, Y. Ma and F. Sette, Chem. Phys. Lett. 183 (1991) 234. (CH_4, CD_4 - C1s)

HM&92a T. Hayaishi, E. Murakami, Y. Morioka, H. Aksela, S. Aksela, E. Shigemasa and A. Yagashita, J. Phys. B 26 (1992) 4119. (Ar2p)

HM&92b T. Hayaishi, E. Murakami, Y. Morioka, E. Shigemasa and A. Yagashita, Photon Factory Ann. Rep. (1992) 36. (Ne1s)

HM&93 A.P. Hitchcock, M.J. McGlinchey, A.L. Johnson, W.K. Walter, M. Perez-Jigato, D.A. King, D. Norman, E. Ruhl, C. Heinzel and H. Baumagartel, J.C.S. Faraday Trans 89 (1993) 3331 . ($Co_3(CO)_9$-C-X, X=Cl, OCH_3 - C1s, Co2p, Co3p, Cl2p, O1s)

HM&95a T. Hayaishi, E. Murakami, Y. Morioka, E. Shigemasa, A. Yagashita and F. Koike, J. Phys. B 28 (1995) 1411. (Ne1s)

HM&95b T. Hayaishi, E. Murakami, E. Shigemasa, A. Yagashita, F. Koike and Y. Morioka, J. Phys. B 28 (1995) 5261.

(Ar1s)

HM&96 T. Hayaishi, E. Murakami, Y. Lu, E. Shigemasa, A. Yagashita, F. Koike and Y. Morioka, Phys. Rev. A 54 (1996) 4064. (Xe2p)

HM&02 T Hayaishi, T Matsui, H Yoshii, A Higurashi, E Murakami, A Yagishita, T Aoto, T Onuma and Y Morioka , J. Phys. B 35 (2002) 141. (Xe4p)

HN86 A.P. Hitchcock and D.C. Newbury, (1986) unpublished. (CHF_3 - C1s, F1s)

HN02 A.P. Hitchcock and J.J. Neville, Chemical Applications of Synchrotron Radiation, Part I: Dynamics and VUV Spectroscopy, Advanced Series in Physical Chemistry Vol 12A, (World Scientific, Singapore, 2002) 154. (review; PF_3-P1s; SPF_3- P2p,P1s; COS-S1s; H_2O – O1s)

HN&86 A.P. Hitchcock, D.C. Newbury, I. Ishii, J. Stöhr, J.A. Horsley, R.D. Redwing, A.L. Johnson and F. Sette, J. Chem. Phys. 85 (1986) 4849. (C_3H_6, C_4H_8, C_5H_8, C_6H_{10}, C_5H_{10}, C_6H_{12}, C_8H_8 - C1s)

HN&98 A.P. Hitchcock, J.J. Neville, A. Jürgensen and R.G. Cavell, J. Electron Spectrosc. 88-91 (1998) 71. (PF_3, SPF_3 - P2p)

HPB77 A.P. Hitchcock, M. Pocock and C.E. Brion, Chem. Phys. Lett. 49 (1977) 125. (CH_4, CD_4 - C1s)

HP&78 A.P. Hitchcock, M. Pocock, C.E. Brion, M.S. Banna, D.C. Frost, C.A. McDowell and B. Wallbank, J. El. Spectrosc. 13 (1978) 345. (C_6H_5X (X=F, Cl, Br, I) - C1s, Cl2p, Br3d, I4d)

HP&98 I. Hjelte, M.N. Piancastelli et al. MaxLab report (1998) 178. (H_2O - O1s)

HP&99 A. Hempelmann, M.N. Piancastelli, F. Heiser, O. Gesner, A. Rudel and U. Becker, J. Phys. B 32 (1999) 2677. (CH_3OH – C1s, O1s)

HR87 F.L. Hutson and D.E. Ramaker, J. Chem. Phys. 87 (1987) 6824. (C_2H_4, C_2H_6 - C1s)

HR89 A.P. Hitchcock and E. Rühl, Physica B 158 (1989) 403. (C_6H_{12-x}, x=0,2,4,6; CH_3CN, CH_3NC, CH_3SCN, CH_3NCS - C1s; $Mn(CO)_5X$, X=H, Br, $Mn_2(CO)_{10}$ - C1s, O1s)

HR96 A.P. Hitchcock and E. Rühl, (ICPEAC XIX) AIP Conf. Proc. 360 (1996) 89. (Ar_n-Ar1s; $(C_2H_2)_n$ - C1s; $C_2B_{10}H_{12}$ - C1s, B1s)

HR&96 A.P. Hitchcock, E. Rühl, A.L.D. Kilcoyne, T. Tyliszczak, P.A. Dowben, unpublished. ($C_2B_{10}H_{12}$ - C1s, B1s)

HR&02 P.A. Hatherly, J. Rius i Riu, M. Stankiewicz, F.M. Quinn and L.J. Frasinski, J. Phys. B 35(2002) L77. (CO_2 – C1s)

HS87 A.P. Hitchcock and J. Stöhr, J. Chem. Phys. 87 (1987) 3523. (CO_2-C1s,O1s)

HS90 A.P. Hitchcock and J. Stöhr, unpublished. (C_3H_4, C_3H_6, C_3F_3H, C_2F_3N, C_6H_6, C_7H_8 - C1s; $C_8H_{12}Si$ - C1s, Si2p)

HS92 A.P. Hitchcock and D. Sutton, unpublished. ($C_{12}H_{15}N_2O_2Re$ - $Cp^*Re(CO)_2N_2$ - C1s, N1s, O1s, Re4f)

HS&81 K.H. Hallmeier, R. Szargan, A. Meisel, E. Hartmann and E.S. Gluskin, Spect. Chim. Acta 37A (1981) 1049. (BF_3-B1s,CF_4-C1s,F1s; KBF_4, NH_4BF_4, H_3BO_3, B_2O_3-B1s)

HS&84 H.W. Haak, G.A. Sawatsky, L Ungier, J.K. Gimzewski, and T.D. Thomas, Rev. Sci. Inst. 55 (1984) 696.

(N_2-N1s)

HS&85 J.A. Horsley, J. Stöhr, A.P. Hitchcock, D.C. Newbury, A.L. Johnson and F. Sette, J. Chem. Phys. 83 (1985) 6099. (C_6H_6-C1s, C_5H_5N-C1s, N1s)

HS&90 P.A. Heimann, F. Senf, W. McKinney, M. Howells, R.D. van Zee, L.J. Medhurst, T. Lauritzen, J. Chin, J. Meneghetti, W. Gath, H. Hogrefe and D.A. Shirley, Phys. Scripta T31 (1990) 127. N_2 - N1s; C_2H_4 - C1s)

HS&93 E. Hudson, D.A. Shirley, M. Domke, G. Remmers, A. Puschmann, T. Mandel, C. Xue and G. Kaindl, Phys. Rev. A 47 (1993) 361. (SF_6 - S2p, F1s)

HS&94 E. Hudson, D.A. Shirley, M. Domke, G. Remmers, and G. Kaindl, Phys. Rev. A 49 (1994) 161. (H_2S, D_2S - S2p)

HS&02 D L Hansen, W C Stolte, O Hemmers, R Guillemin and D W Lindle, J. Phys. B 35 (2002) L381. (CO-C1s, O1s)

HT88 A.P. Hitchcock and M. Tronc, Chem. Phys. 121 (1988) 265. (SO_2-S1s; $SO_2Cl_xF_{2-x}$ - S1s,Cl1s)

HTB89 A.P. Hitchcock, G. Tourillon and W. Braun, Can. J. Chem. 67 (1989) 1819. (C_4H_4Se, C_5H_6Se - C1s, Se3d, Se3p,3s)

HTM89 A.P. Hitchcock, M. Tronc and A. Modelli, J. Phys. Chem. 93 (1989) 3068. (CH_3CN, CH_3NC - C1s, N1s; CH_3SCN, CH_3NCS - C1s, N1s, S2p,2s)

HT&89 A.P. Hitchcock, G. Tourillon, R. Garrett and N. Lazarz, J. Phys. Chem. 93 (1989) 7624. ($C_{10}H_8$, $C_{10}F_8$ - azulene, naphthalene - C1s)

HT&90 A.P. Hitchcock, G. Tourillon, G.P. Williams, C. Mahatsekake and C. Andrieu, J. Phys. Chem. 94 (1990) 2327. (C_4H_3S-X, X= H, Me, Et, Bu, Hx, Oc, De - C1s, S2p,2s)

HT&93 A.P. Hitchcock, T. Tyliszczak, P. Aebi, J. Xiong, T.K. Sham, K.M. Baines, K.A. Mueller, X.H. Feng, J.M. Chen, B.X. Yang, Z.H. Lu, J.M. Baribeau and T.E. Jackman, Surf. Sci. 291 (1993) 349. ($SiMe_4$, $Si(GeMe_3)_4$, $Si(SiMe_3)_4$, $Ge(SiMe_3)_4$ - Si1s)

HT&99 T. Hayaishi, T. Tanaka, H. Yoshii, E. Murakami, E. Shigemaasa, A. Yagashita, F. Koike and Y. Morioka, J. Phys. B 32 (999) 1507. (Kr2p)

HT&00 C.F. Hague, M. Tronc, Y. Yanagida, A. Kotani, J.H. Guo and C.J. Sathe, Phys. Rev. A 63 (2000) 012511. ($TiCl_4$ – Ti2p)

HU97 A.P. Hitchcock and S.G. Urquhart, unpublished. (C_7H_8O - C1s, O1s)

HUR92 A.P. Hitchcock, S.G. Urquhart and E.G. Rightor, J. Phys. Chem. 96 (1992) 8736. (Cl_2CO,$C_8Cl_2H_4O_2$ - C1s, O1s, Cl2p; C_6H_6 - C1s; C_7H_6O, $C_8H_6O_2$, $C_9H_{10}O$ - C1s, O1s)

HUR93 A.P. Hitchcock, S.G. Urquhart and E.G. Rightor, (1993) unpublished. ($C_6H_5N(CH_3)_2$ - C1s, N1s)

HU&97 A.P. Hitchcock, S.G. Urquhart, A.T. Wen, A.L.D. Kilcoyne, T. Tyliszczak, E. Rühl, N. Kosugi, J.D. Bozek, J.T. Spencer, D.N. McIlroy and P.A. Dowben, J. Phys. Chem. B 101 (1997) 2267. ($C_2B_{10}H_{12}$ - C1s, B1s)

HWR89 A.P. Hitchcock, A.T. Wen and E. Ruhl, unpublished. ($M(Cp)_2$ - V,Cr,Mn - C1s)

HWR90a A.P. Hitchcock, A.T. Wen and E. Ruhl, J. Electron Spectrosc. 51 (1990) 653. (CO, $Mn(CO)_5Br$, $Fe(CO)_5$, $Ni(CO)_4$, $Co_2(CO)_8$, $C_6H_8Fe(CO)_3$ - C1s,O1s)

HWR90b A.P. Hitchcock, A.T. Wen and E. Ruhl, Chem. Phys. 147 (1990) 51. ($Mn(CO)_5Br$ - Mn2p; $Fe(CO)_5$, $FeCp_2$, $C_6H_8Fe(CO)_3$ - Fe2p,Fe3p; $Co_2(CO)_8$, $CoCp_2$, $CpCo(CO)_2$ -Co2p,3p)

HW&90 B.P. Hollebone, A.T. Wen, T. Tyliszczak and A.P. Hitchcock, J. Elect. Spect. 51 (1990) 661. (CO_2, CF_4, C_6H_6, $Fe(CO)_5$, $CpCo(CO)_2$ - C1s; EXELFS)

HW&91 A.P. Hitchcock, A.T. Wen, S.G. Urquhart and E. Rightor, unpublished ($C_3H_6O_3$, $C_{12}H_{10}O_3$ - C1s,O1s)

HW&93 A.P. Hitchcock, A.T. Wen, S. Lee, J.A. Glass, Jr., J.T. Spencer and P.A. Dowben, J. Phys. Chem. 97 (1993) 8171. (B_5H_9, $B_{10}H_{14}$ - B1s; $B_4C_6H_{16}$, $B_9C_2H_{11}$, $B_{10}C_2H_{12}$ - B1s, C1s)

HW&94 F. Heiser, S.B. Whitfield, J. Viefhaus, U. Becker, P.A. Heimann and D.A. Shirley, J. Phys. 27 (1994) 19. (Ar1s)

HW&95 O. Hemmers, S.B. Whitfield, N. Berrah, B. Langer, R. Wehlitz and U. Becker, J. Phys. B 28 (1995) L693. (CO - C1s)

HYP97 A.N. Hopersky, V.A. Yavna and V.A. Popov, J. Phys. B 30 (1997) 5131. (Xe1s)

HY&90a T. Hayaishi, A. Yagashita, E. Shigemasa, J. Murakami and Y. Morioka, Phys. Scripta 41 (1990) 35. (Kr3d, Xe4d)

HY&90b T. Hayaishi, A. Yagashita, E. Shigemasa, Y. Morioka and T. Sasaki, J. Phys. B 23 (1990) 1633. (Kr3d)

HZ96 T. Hayaishi and P. Zimmermann, A*Ion Yield Spectroscopy with Soft X-rays@*, in VUV and Soft X-ray Photoionization, U. Becker, D.A. Shirley, eds. (Plenum, NY, 1996) 465. (Ar2p, Ce4d, Co3p, Cr3p, Dy4d, Fe3p, Kr3d, Mn3p, Ni3p, Sc2p, Ti3p, Xe4d)

I01 K. Ito, J. El. Spec. 114-116 (2001) 15. (N_2 – N1s, CO – C1s, O1s)

IA&00 K. Ito, J. Adachi, Y. Hikosato, S. Motoki, K. Soejima, A. Yagashita, G. Raseev and N.A. Cherepkov, Phys. Rev. Lett. 85 (2000) 46. (CO - O1s)

IB&91 T. Imamura, C.E. Brion, I. Koyano, T. Ibuki and T. Masuoka, J. Chem. Phys. 94 (1991) 4936. (SiF_4 - Si2p)

IF&91 H. Ishikawa, K. Fujima, H. Adachi, E.M. Yauchi and T. Fujii, J. Chem. Phys. 94 (1991) 6740. (SiX_4, X=H,F,Cl - Si2p)

IH87 I. Ishii and A.P. Hitchcock, J. Chem. Phys. 87 (1987) 830. ($HCONH_2$ - C1s, N1s, O1s; HCOOH - C1s,O1s; HCOF - C1s,O1s,F1s)

IH88 I. Ishii and A.P. Hitchcock, J. Electron Spectrosc. 46 (1988) 55. (CH_3OH, HCOOH, CH_3COOCH_3, $HCCCO_2H$, CH_2CHCO_2H, $CH_3CH_2O_2H$, $HCCCH_2OH$, CH_2CHCH_2OH, $CH_3CH_2CH_2OH$ -C1s,O1s)

IH&96 T. Ibuki, A. Hiraya, T.N. Olney and C.E. Brion, Chem. Phys. 203 (1996) 359. (BrCN - Br3d)

II&80 E. Ishiguro, S. Iwata, Y. Suzuki, A. Mikuni and T. Sasaki, Proc. VUV-6 (Charlottesville 1980) II-70. (BF_3, BCl_3, BBr_3 -B1s)

II&82 E. Ishiguro, S. Iwata, Y. Suzuki, A. Mikuni and T. Sasaki, J. Phys. B 15 (1982) 1841. (BF_3, BCl_3, BBr_3 - B1s)

II&87 E. Ishiguro, S. Iwata, A. Mikuni Y. Suzuki, H. Kanamon and T. Sasaki, J. Phys. B 20 (1987) 4725. (PH_3, PF_3, PCl_3, PBr_3 - P2p,Cl2p)

II&91 H. Ishii, Y. Iketaki, T. Watabe, T. Takayangi, K. Wakiya, H. Suzuki and F. Koike, Phys. Rev. A 43 (1991) 134. (Ar2p, Kr3d, Xe4d)

II&00 Y. Itoh, A. Ito, M. Kitajima, T. Koizumi, T.M. Kojima, H. Sakai, M. Sano and N. Watanabe, J. Phys. B 34 (2001) 3493. (Xe4d)

IKN78 S. Iwata, N. Kosugi and O. Nomura, J. Jpn. Appl. Phys. 17 S2 (1978) 109. (CO, C_2H_2 -C1s; N_2 -N1s; CO -O1s)

IK&95a B.S. Itchkawitz, B. Kempgens, H.M. Köppe, J. Feldhaus, A.M. Bradshaw and W.B. Peatman, Rev. Sci. Inst. 66 (1995) 1531. (Ar2p, CF_4 - C1s)

IK&95b Y. Itoh, T. Koizumi, Y. Awaya, S.D. Kravis, M. Oura, M. Sano, T. Sekioka and F. Koike, J. Phys. B 28 (1995) 4733. (Sr^+ - 3d)

IM&88 I. Ishii, R. McLaren, A.P. Hitchcock, K.D. Jordan, H. Choi and M.B. Robin, Can. J. Chem. 66 (1988) 2104. (C_2H_6, C_6H_{12}, C_xF_{2x+2},x=1-6; c-C_3F_6, c-C_4F_8, C_5F_{12}, c-C_5F_{10}, c-C_6F_{12} - C1s, F1s)

IN&92 Y. Ito, H. Nakamatsu, T. Mukoyama, K. Omote, S. Yoshikado, M. Takahashi and S. Emura, Phys. Rev. A 46 (1992) 6083. (Kr1s)

IOG97 T. Ibuki, K. Okada and T. Gejo, I.M.S. Report (1997) 46. (C_7F_5N – C1s)

IOW01 Y. Iketani, K. Ohtsuki and T. Watanabe, J. Phys. B 34 (2001) 1889. (NO – N1s, O1s)

IO&99 T. Ibuki, K. Okada, T. Gejo and K. Saito, J.El. Spec. 101 (1999) 149. (C_2Cl_3N – Cl2p, N1s; C_7F_5N – C1s,N1s; $C_4H_5NO_2$, $C_8F_3H_4NO$ – N1s, O1s)

I0&00 T. Ibuki, K. Okada, K. Saito and T. Gejo, J.El. Spec. 107 (2000) 39. ($C_3H_3NO_2$, $C_4H_5NO_2$ – N1s,O1s)

ISN97 Y. Ito, Y. Sugita and Y Nara, J Vac. Sci. Tech. A 15 (1997) 2561. (SiH_4 - Si2p)

IS&93 H. Ikeura, T. Sekiguchi, K. Tanaka, K. Obi, N. Ueno and K. Honma, Jap. J. Appl. Phys. 32 (1993) S2, 246. (H_2O-O1s)

ITK99 S. Itoh, S. Tanaka and Y. Kayanumo, Phys. Rev. A 60 (1999) 4488. (CF_4 – C1s)

IV&98 Y. Ito, A.M. Vlaicu, T. Tochino, T. Mikoyano, M. Takahashi, S. Emura and Y. Azuma, Phys. Rev. A 57 (1998) 873. (Xe2p)

JA&97 U. Johansson, J.N. Andersen, R. Nyholm and I.Lindau, MaxLab Report (1997) 184. (Nes; N_2 – N1s, CO – C1s, O1s)

JC00 A. Jürgensen and R.G. Cavell, Chem. Phys. 257 (2000) 123. (SO_2, NO_2 – O1s)

JC01 A. Jürgensen and R.G. Cavell, Chem. Phys. 273 (2001) 77. (NH_3, NF_3 – N1s; PH_3, PF_3 – P1s)

JC&93 J. Jiminez-Lier, C.D. Caldwell, M.G. Flemming, S.B. Whitfield and P. van der Muelen, Phys. Rev. A 48 (1993) 442. (Sr4p)

JC&96 L. Journel, D. Cubaynes, J.-M. Bizau, S. Al Moussalami, B. Rouvellou, F.J. Wiuilleumier, L. Vokoy, P. Faucher and A. Hibbert, Phys. Rev. Lett. 76 (1996) 30. (Li1s)

JC&97 J. Johnson, J.N. Cutler, G.M. Bancroft, Y.F. Hu and K.H. Tan, J. Phys. B 30 (1997) 4899. (Br_2, HBr, DBr, FBr, CH_3Br, CF_3Br - Br3d)

JH&84 Y. Jugnet, F.J. Himpsel, Ph. Avouris and E.E. Koch, Phys. Rev. Lett. 53 (1984) 198. (CO-C1s,O1s)

JG&93 E. Jannitti, M. Gaye, M. Mazzoni, P. Nicolosi and P. Villoresi, Phys. Rev. A 47 (1993) 4033. (C1s)

JJ&91 T. Jaing-Chang, S. Jeng-Feng, F. Xiao-Song nd C.Y. Bing, Chin. Soc. Bull. 36 (1991) 557. (O_2,CO - O1s)

JKC99 A. Jurgensen, N. Kosugi and R.G. Cavell, Chem. Phys. 247 (1999) 445. (NSF_3 – S2p; OPF_3 – P2p)

JK&89 J. Jimenez-Mier, M.O. Krause, P. Gerard, B. Hermsmeier and C.S. Fadley, Phys. Rev. A 40 (1989) 3712. (Mn3p)

JNT87 E. Jannitti, P. Nicolosi and G. Tondello, J. Phys 48 (1987) C9-219. (C1s)

JNT90 E. Jannitti, P. Nicolosi and G. Tondello, Phys. Scripta 41 (1990) 458. (C1s)

JN&95 E. Jannitti, P. Nicolosi P. Villoresi and F. Xianping, Phys. Rev. A 51 (1995) 314. (C1s)

JP58 G. Joos and K.H. Peter, Z. Phys. Chem. NF 18 (1958) 74. ($Cr(CO)_6$ -Cr1s; $Fe(C_5H_5)_2$, $Fe(CO)_5$ - Fe1s)

JS&90 R. Jing, R. Staub, H. Baiter, G. Reiser, W. Habenicht and K. Muller-Dethlefs, Ber. Bun. Phys. Chem. 94 (1990) 1318. ($C_2F_3H_3$, $C_2F_2H_2$ - C1s)

JT94a P. Jayes and R.J. Tarento, Phys. Rev. B 49 (1994) 5003; *ibid*, J. Phys. (Paris) 2 (1992) 1667. (C_{60}-C1s)

JT94b D. Ji and T.D. Thomas, J. El. Spec. 67 (1994) 233. ($C_3H_6O_2$ - C1s, O1s)

JW&02 T. Jahnke, Th. Weber, A.L. Landers, A. Knapp, S. Schössler, J. Nickles, S. Kammer, O. Jagutzki, L. Schmidt, A. Czasch, T. Osipov, E. Arenholz, A. T. Young, R. Díez Muiño, D. Rolles, F.J. García de Abajo, C. S. Fadley, M.A. Van Hove, S. K. Semenov, N.A. Cherepkov, J. Rösch, M.H. Prior, H. Schmidt-Böcking, C. L. Cocke, and R. Dörner, Phys. Rev. Lett. 88 (2002) 073002. (CO – C1s, N_2- N1s)

K77 A.A. Krasnoperova, Dissertation, Novosibirsk, 1977. (PCl_3, $PSCl_3$, $POCl_3$ - P2p, Cl2p)

K84 G.C. King, Lect. Notes in Chem. 35 (1984) 162. (N_2-N1s, Ar2p)

K87 N. Kosugi, Springer Series in Solid State Science 81 (1987) 203. (N_2-N1s, CO-C1s; $Fe(CO)_5$-Fe1s)

K88 M.O. Krause, Proc. SPIE 911 (1988) 23. (Ne1s, Kr3d, Mn3p, Be1s)

K92 P. Kitzler, Phys. Lett. A 172 (1992) 66. (BF_3-B1s; N_2, N_2O - N1s; O_2, N_2O - O1s; $GeCl_4$ - Ge1s; Br_2 - Br1s; summary of XANES studies)

K96a A. Karawajczyk, Phys. Scripta 53 (1996) 46. (N_2 - N1s)

K96b N. Kosugi, J.Electron Spectrosc. 79 (1996) 351. (N_2O - O1s; CH_4, CO_2 - C1s)

K96c M. Kutzner, "Many Electron Effects in Photoionization" in VUV and Soft X-ray Photoionization, U. Becker, D.A. Shirley, eds. (Plenum, NY, 1996) 1. (Mn3d, La4d)

K02 N. Kosugi, Chemical Applications of Synchrotron Radiation, Part I: Dynamics and VUV Spectroscopy, Advanced Series in Physical Chemistry Vol 12A, (World Scientific, Singapore, 2002) 228. (CO, C_2H_2, COS, CS_2, CH_4 – C1s; CO_2 –C1s, O1s; O_2 – O1s, N_2 – N1s; C_4H_4S, SO_2 – S1s)

KAA96 E. Kukki, S. Aksela and H. Aksela, Phys. Rev. A 53 (1996) 3271. (Kr3d)

KA&92a N. Kosugi, J. Adachi, E. Shigemasa and A. Yagashita, J. Chem. Phys. 97 (1992) 8842. (NO - N1s, O1s)

KA&92b N. Kosugi, J. Adachi, E. Shigemasa and A. Yagashita, Photon Factory Ann. Rep. (1992) 40 (NO - N1s, O1s)

KA&93 A. Kivimaki, H. Aksela, S. Aksela, A. Yagashita and E.Shigemasa, J. Phys. B 26 (1993) 3379. (HCl - Cl2p)

KA&94 E. Kukki, S. Aksela, H. Aksela, O.-P. Sairanen, A. Yagashita and E. Shigemasa, J. Phys. B 27 (1994) 1965. (Eu4d, Sm4d)

KA&96a E. Kukki, H. Aksela, O.-P. Sairanen, S. Aksela, A. Kivimaki, E. Nommiste, A. Ausmeer, A. Kikas, S.J. Osborne and S. Svensson, J. Chem. Phys. 104 (1996) 4475. (HCl, DCl - Cl2p)

KA&96b E. Kukki, H. Aksela, S. Aksela, F. Gel'mukhanov, H. Agren and S. Svensson, Phys. Rev. Lett. 76 (1996) 3100. (HCl - Cl2p)

KA&96c T. Koizumi, Y. Awaya et al. J. Electron Spectrosc. 79 (1996) 289. (Xe4d, Ba4d, Eu4d)

KA&96d E. Kukki, H. Aksela, O.-P. Sairanen, E. Nommiste, S. Aksela, S.J. Osborne, A. Ausmees and S. Svensson, Phys. Rev. A 54 (1996) 2121. (HCl, DCl – Cl 2p)

KA&97a B. Kassahlke, P. Averkamp, S. Frigo, P. Feulner and W. Berthold, Phys. Rev. B 55 (1997) 10854. (N_2 -N1s)

KA&97b E. Kukki, H. Aksela, A. Kivimaki, J. Jouhainen, E. Nommiste and S. Aksela, Phys. Rev. A 56 (1997) 1481. (Kr3d)

KA&00 H. Kjeldsen, P. Andersen, F. Folkmann, H. Knudsen, B. Kristensen, J.B. West and T. Andersen, Phys. Rev. A 62 (2000) 020702. (I4d)

KA&01 H. Kjeldsen, P. Andersen, F. Folkmann, B. Kristensen and T. Andersen, J. Phys. B 34 (2001) L353. (Li1s)

KA&02a H. Kjeldsen, P. Andersen, F. Folkmann, J.E. Hansen, M. Katajima and T. Andersen, J. Phys. B 35 (2002) 2845. (Ba4d, Cs4d, I4d, Xe4d)

KA&02b A. Kodre, I. Arcon, J.P. Gomilsek, R. Preseren and R. Frahm, J. Phys. B 35 (2002) 3497. (Kr1s, Rb1s)

KA&02c B. Kristensen, T. Andersen, F. Folkmann, H. Kjeldsen, and J. B. West, Phys. Rev. A 65(2002) 022706. (S2p)

KBB00 E. Kukk, J.D. Bozek and N. Berrah, Phys. Rev. A 62 (2000) 032708. (CO_2 – C1s)

KBH90 N. Kosugi, S. Bodeur and A.P. Hitchcock, J. Electron Spectrosc. 51 (1990) 103. (SF_4, SF_6 - S2p, S2s, F1s, S1s)

KB&93a S. Krummacher, M. Biermann, M. Neeb, A. Liebsch and W. Eberhardt, Phys. Rev. B 48 (1993) 8424. (C_{60}-C1s)

KB&93b S. Krummacher, M. Biermann, M. Neeb, A. Liebsch, W. Eberhardt, H. Kuzmany, J. Fink, M. Mehring and S. Roth, Proc. El. Prop. of Fullerenes (Springer-Verlag, 1993) 95. (C_{60}-C1s)

KB&96 N. Kosugi, C.E. Brion, R.G. Cavell and A.P. Hitchcock, Chem. Phys. Lett. (sub., Aug 1996) (PF_3 - P2p)

KB&97a S. Kakar, O. Bjorneholm, J. Weigelt, A.R.B. de Castro, L. Trager, R. Frahm, T. Möller, A. Knop and E. Rühl, Phys. Rev. Lett. 78 (1997) 1675. (Ar_n - Ar1s)

KB&97b S. Kakar, O. Bjorneholm, J.O. Loefkan, F. Fearman, A.V. Soldatov and T. Möller, Z. Phys. D 40 (1997) 84. ($(CH_4)_n$ - C1s, Ne_n - Ne1s)

KB&99 E. Kukk, J.D. Bozek, W.T. Cheng, R.F. Fink, A.A.Willis and N. Berrah, J. Chem.Phys. 111 (1999) 9642. (CO – C1s)

KC87a M.O. Krause and C.D. Caldwell, Phys. Rev. Lett. 59 (1987) 2736. (Be1s)

KC87b M.O. Krause and C.D. Caldwell, J. Phys. 48 (1987) 473. (Be1s)

KCF83 M.O. Krause, F. Cerrina and A. Fahlman, Phys. Rev. Lett. 50 (1983) 1118. (Ga3d)

KCM96 E.T. Kennedy, J.T. Costello and J.P. Mosnier, J. Electron Spectrosc. 79 (1996) 283. (Li1s, Ba4d, La4d, Mg2p, Al2p, Si2p)

KCN82 H.P. Kelly, S.L. Carter and B.E. Norum, Phys. Rev. A 25 (1982) 2052. (Ba, Ba^{2+}, 4d)

KC&96 M.O. Krause, C.D. Caldwell, A. Menzel, S. Benzaud and J. Jiminez-Mier, J. Electron Spectrosc. 79 (1996) 241. (O1s)

KC&97a L.M. Kiernan, J.T. Costello, E.T. Kennedy, J.P. Mosnier and B.F. Sonntag, J. Phys. B 30 (1997) 4801. (Zn3p)

KC&97b N. Kosugi, R.G. Cavell and A.P. Hitchcock, Chem. Phys. Lett 265 (1997) 490. (PF_3 - P2p)

KC&92 G. Kuper, R. Chauvistre, J. Hormes, F. Frick, M. Jansen, B. Luer and E. Hartmann, Chem. Phys. 165 (1992) 405. [P_4O_6, P_4O_{10}, $P(CH_6H_5O)_3$, $PO(CH_6H_5O)_3$ - P1s]

KC&95 W. Köble, J.T. Costello, J.P. Mosnier, E.T. Kennedy and M. Martins, J. Phys. B 28 (1995) 181. (Au5p, Au4f)

KC&99 E.T. Kennedy, J.T. Costello, A. Gray, C. McGuiness, J.P. Mosnier and P. van Kampen, J. El. Spec. 101-103 (1999) 161. (Cr3p, Na2s, Mg2s, Si2p)

KDC79 F. Kaspar, W. Domcke and L.S. Cederbaum, Chem. Phys. Lett. 44 (1979) 33. (CO-C1s, N_2-N1s)

KD&92 G. Kaindl, M. Domke, C. Laubshat, E. Meschke and C. Xue, Rev. Sci. Inst. 63 (1992) 1234 (Ar2p, CO - C1s, N_2 - N1s)

KE75 B.M. Kincaid and P. Eisenberger, Phys. Rev. Lett. 34 (1975) 1361. ($GeCl_4$ - Ge1s; Kr1s; Br_2 - Br1s)

KE&83 F.W. Kutzler, D.E. Ellis, T.I. Morrison, G.K. Shenoy, P.J. Viccaro, P.A. Montano, E.H. Appelman, L. Stein, M.J. Peleu and D.M. Gruen, Sol. St. Comm. 46 (1983) 803. (Kr1s; KrF_2-Kr1s)

KE&98 A. Karakajzyk, P. Erman, P. Hatherly, E. Raclew, M. Stankiewicz and K.Y. Franzen, Phys. Rev. A 58 (1998) 314. (CS_2 – C1s, S2p)

KF&98 L.V. Ky, P. Faucher, H.L. Zhou, A. Hibbert, Y.Z. Qu, J.M. Li and F. Bely-Dubau, Phys. Rev. A 58 (1998) 3688. (Li 1s)

KGM77 A.A. Krasnoperova, E.S. Gluskin and L.N. Mazalov, J. Struct. 18 (1977) 206 [Zh. Struk. Khim. 18 (1977) 255]. (COS,CS_2 - S2p)

KG&76 A.A. Krasnoperova, E.S. Gluskin, L.N. Mazalov and V.A. Kochubei, J. Struct. Chem. 17 (1976) 947 [Zh. Struk. Khim. 17 (1976) 1113]. (SO_2 - S2p)

KG&97 H. Köppel, F.X. Gadea, G. Klatt, J. Schirmer and L.S. Cederbaum, J. Chem. Phys. 106 (1997) 4415. (C_2H_4, $C_2H_2D_2$ - C1s)

KG&00 P. van Kampen, Ch. Gerth, M. Martins, P.K. Carroll, J. Hirsch, E.T. Kennedy, O. Meighan, J.P. Moisner, P. Zimmermann and J.T. Costello, Phys. Rev. A 61 (2000) 062706. (U5d)

KH90 U. Kuetgans and J. Hormes, SIF Conf. Proc. 25 (1990) 59. ($TiCl_4$ - Ti1s)

KH91 U. Kuetgans and J. Hormes, Phys. Rev A 44 (1991) 264. (Ar1s)

KH&87 T. Koizumi, T. Hayaishi, Y. Itikawa, T. Nagata, Y. Sato and A. Yagashita, J. Phys. B 20 (1987) 5393. (Rb3d, Sr3d)

KH&89 T. Koizumi, T. Hayaishi, T. Matsuo, K. Shima, H. Tawara, T. Tonuma and A. Yagashita, J. Phys. Soc. Jpn. 58 (1989) 13. (Xe2p)

KH&90 T. Koizumi, T. Hayaishi, Y. Itikawa, Y. Itoh, T. Matsuo, T. Nagata, Y. Sato, E. Shigemasa, A. Yagashita and M. Yoshino, J. Phys. B 23 (1990) 403. (Rb3d, Sr3d)

KH&92 B. Kammerling, A. Hausmann, J. Lauger and V. Schmitt, J. Phys. B 25 (1992) 4773. (Mg2p)

KH&00 A. Kivimaki, U. Hergenhahn, B. Kempgens, R. Hentges, M.N. Piancastelli, K. Maier, A. Rudel, J.J. Tulkki and A.M. Bradshaw, Phys. Rev. A 63 (2000) 012716. (Xe3d)

KH&01 M. Kitajima, M. Hoshino, M. Okamoto, T. Suzuki, H. Tanaka, Y. Shimizu, Y. Muramatsu, H. Chiba, K. Ueda, T. Hayaishi, M. Simon and M. Kimura Phys. Rev. A 63, (2001) 050703 (SF6 – S2p)

KI00 N. Kosugi and T. Ishida, Chem. Phys. Lett. 329 (2000) 138. (SO_2, COS – S2p, PF_3 – P2p)

KI&84 H. Kanamori, S. Iwata, A. Mikuni, and T. Sasaki, J. Phys. B 17 (1984) 3887. (BF_3-B1s)

KI&95a T. Koizumi, Y. Itoh, M. Sano, M. Kimura, T.M. Kojima, S. Kravis, A. Matsumoto, M. Oura, T. Sekioka and Y. Awaya, J. Phys. B 28 (1995) 609. (Ba 4d)

KI&95b B. Kemgens, B.S. Itchkawitz, K.J. Randall, J. Feldhaus, A.M. Bradshaw, H. Koppel, F.X. Gadea, D. Nordfors, J. Schirmer and L.S. Cederbaum, Chem. Phys. Lett. 246 (1995) 347. (C_2H_4, 1,1-$C_2H_2D_2$, $C_2H_2D_2$, C_2D_4 - C1s)

KI&96 H.M. Köppe, B.S. Itchkawitz, A.L.D. Kilcoyne, J. Feldhaus, B. Kempgens, A. Kivimaki, M. Neeb and A.M. Bradshaw, Phys. Rev. A 53 (1996) 4120. (CH_4 - C1s)

KI&97 B. Kempgens, B.S. Itchkawitz, J. Feldhaus, A.M. Bradshaw, H.M. Köppel, M. Doscher, F.X. Gadea and L.S. Cederbaum, Chem. Phys. Lett. 277 (1997) 436. (C_2H_2 - C1s)

KJ&94 A. Knop, H.W. Jochims, A.L.D. Kilcoyne, A.P. Hitchcock and E. Rühl, Chem. Phys. Lett. 223 (1994) 553. (Ar, Ar_n - Ar2p)

KJ&95 B. Krassig, M. Jung, D.S. Gemmell, E.P. Kanter, T. LeBrun, S.H. Southworth and L. Young, Phys. Rev. Lett. 75 (1995) 4736. (Ar1s)

KK83 N. Kosugi and H. Kuroda, Chem. Phys. Lett. 94 (1983) 377. (N_2-N1s; CO, CO_2 - C1s, O1s)

KKS89 B. Kammerling, H. Kossman and V. Schmidt, J. Phys. B 22 (1989) 841. (Xe4d)

KK&92 M. Kanno, G. Kutluk, T. Takaku, T. Nagata, E. Shigemasa, A. Yagashita and F. Kolka, Photon Factory Ann. Rep. (1992) 42. (K2p, Ca2p, Mn2p, Fe2p)

KK&95a U. Koble, L.M. Kiernan, J.T. Costello, J.P. Mosnier, E.J. Kennedy, V.K. Ivanov, V.A. Kupchenko and M.S. Shendick, Phys. Rev. Lett. 74 (1995) 2188. (La4d)

KK&95b H.M. Koppe, A.L.D. Kilcoyne, J. Feldhaus and A.M. Bradshaw, J. Electron Spectrosc. 75 (1995) 97. (CO - C1s)

KK&96a B. Kempgens, A. Kivimaki, M. Neeb, H.M. Köppe, A.M. Bradshaw and J. Feldhaus, J. Phys. B 29 (1996) 5389. (N_2 -N1s)

KK&96b H.M. Köppe, B. Kempgens, A.L.D. Kilcoyne, J. Feldhaus and A.M. Bradshaw, Chem. Phys. Lett. 260 (1996) 223. (CO -C1s)

KK&97a B. Kempgens, H.M. Köppe, A. Kivimaki, M. Neeb, K. Maier, U. Hergenhahn and A.M. Bradshaw, Phys. Rev. Lett. 79 (1997) 35. (C_2H_x,x=2,4,6 - C1s)

KK&97b B. Kempgens, A. Kivimaki, H.M. Köppe, M. Neeb, A.M. Bradshaw and J. Feldhaus, J. Chem. Phys. 107 (1997) 4219. (C_2H_2 - C1s)

KK&97c B. Kempgens, H.M. Köppe, A. Kivimaki, M. Neeb, L.S. Cederbaum and A.M. Bradshaw, Phys. Rev. Lett. 79 (1997) 3617. (C_2H_2 - C1s)

KK&98a A. Kivimaki, B. Kempgens, M.N. Piancastelli, M. Neeb, K. Maier, A, Rudel, U. Hergerhahn, and A.M. Bradshaw, J. Electron Spectrosc. 93 (1998) 81. (O_2 - O1s)

KK&98b A. Kivimaki, E. Kukk, J. Karvonen, J. Mursu, E. Nommiste, H. Aksela and S. Aksela, Phys. Rev. A 57 (1998) 2724. (HCl - Cl2p)

KK&98c B. Kempgens, A. Kivimaki, B.S. Itchikawitz, H.M. Köppe, M. Schmidbauer, M. Neeb, K. Maier, J. Felhaus, and A.M. Bradshaw, J. El. Spec. 93 (1998) 39. (C_2H_4 - C1s)

KK&99 B. Kempgens, H.M. Köppe, A. Kivimaki, M. Neeb, K. Maier, U. Hergenhahn, and A.M. Bradshaw, Surf. Sci. 425 (1999) L376. (C_2H_2, C_2H_4, C_2H_6, C_6H_6 - C1s)

KK&02 H. Kjeldsen, B. Kristensen, F. Folkmann and T. Andersen, Phys. Rev. B 35 (2002) 3655. (Fe3p)

KL86 F. Keller and H Levebvre-Brion, Z. Phys. D 4 (1986) 15. (HBr-Br3d; HI-I4d)

KLW77a R.B. Kay, Ph.E. van der Leeuw and M.J. Van der Wiel, J. Phys. B 10 (1977) 2513. (CO - C1s; N_2 - N1s)

KLW77b R.B. Kay, Ph.E. van der Leeuw and M.J. Van der Wiel, J. Phys. B 10 (1977) 2521. (CO - C1s)

KL&92 D.Y. Kim, K.Lee, C.I. Ma, M. Mahalingam, D.M. Hanson and S.L. Hubert, J. Chem. Phys. 97 (1992) 5915. (H_2O - O1s)

KL&96 L.M. Kiernan, M.K. Lee, B.F. Sonntag, P. Zimmermann, J.T. Costello, E.J. Kennedy, A. Gray and L.V. Ky, J. Phys. B 29 (1996) L181. (Li1s)

KM83 A.V. Kondratenko, and L.N. Mazalov, Theor. Chim. Acta 62 (1983) 537. (HCl-Cl2p, H_2S-S2p, PH_3-P2p, SiH_4-Si2p)

KMK79 A.V. Kondratenko, L.N. Mazalov and B.A. Kornev, J. Struct. Chem. 20 (1979) 833 [Zh. Struk. Khim. 20 (1979) 963]. (NO-N1s; O_2-O1s)

KML01 T Kroin, S E Michelin and M-T Lee, J. Phys. B 34 (2001) 1829. (CO – C1s)

KMN79 A.V. Kondratenko, L.N. Mazalov and K.M. Neiman, J. Struct. Chem. 20 (1979) 170, 785 [Zh. Struk. Khim. 20 (1979) 203, 919]. (N_2-N1s; CO-C1s,O1s)

KMN80a A.V. Kondratenko, L.N. Mazalov and K.M. Nieman, Opt. Spectrosc. 49 (1980) 266 [Opt. Spektrosk. 49 (1980) 488]. (SO_2-S2p,S1s)

KMN80b A.V. Kondratenko, L.N. Mazalov and K.M. Nieman, Theor. Chim. Acta 54 (1980) 179. (Cl_2 - Cl 2p)

KMR77 G.C. King, J.W. McConkey and F.H. Read, J. Phys. B 10 (1977) L541. (N_2-N1s, CO-C1s)

KM&77 A.V. Kondratenko, L.N. Mazalov F. Kh. Gel'mukhanov, V.I. Avdeev and E. A. Saprykina, J. Struct. Chem. 18 (1977) 437 [Zh. Struk. Khim. 18 (1977) 546]. (CO -C1s, O1s; N_2- N1s)

KM&80 G.C. King, J.W. McConkey, F.H. Read and B. Dobson, J. Phys. B 13 (1980) 4315. (N_2, NO, N_2O -N1s; CO, CO_2 - C1s)

KM&84 O. Keski-Rahkonen, G. Materlick, B. Sonntag and J. Tulkki, J. Phys. B 17 (1984) L121. (Ba2s,2p; Hg2s,2p)

KM&98 A. Kivimaki, K. Maier, U. Hergerhahn, M.N. Piancastelli, B. Kempgens, A, Rudel, and A.M. Bradshaw, Phys. Rev. Lett. 81 (1998) 301. (N_2 - N1s)

KM&02 M. Kutzner, V. Maycock, J. Thorarinson, E. Pannwitz, and J. A. Robertson, Phys. Rev. A 66 (2002) 042715. (Ca2p,Mg2p, Sr2p)

KNP92 A. Koch, B.M. Nestmann and S.D. Peyerimhoff, Chem. Phys. 161 (1992) 169 (CH_4 - C1s; SiH_4 - Si1s, NH_4-N1s, PH_4-P1s)

KNS90 A.G. Kochur, A.M. Nadolinskii and V. Sukhorukov, Opt. Spectrosc USSR 69 (1990) 278 [Opt. i Spek. 69 (1990) 464]. (F1s)

KNY93 A.N. Khoperskii, A.M. Nadolinskii and V.A. Yanna, Opt. Spectrosc. 74 (1993) 493. (Kr2p, Xe3p)

KN&96 A. Kivimaki, M. Neeb, B. Kempgens, H.M. Köppe, A.M. Bradshaw, Phys. Rev. A 54 (1996) 2137. (N_2 - N1s)

KN&97a J. Karvonen, E. Nommiste, H. Aksela and S. Aksela, J. Chem. Phys. 106 (1997) 3466. (C_{60} - C1s)

KN&97b A. Kivimaki, M. Neeb, B. Kempgens, H.M. Köppe, K. Maier and A.M. Bradshaw, J. Phys. B 30 (1997) 4279. (N_2 - N1s)

KO&98 T.M. Kojima, M. Oura, Y. Itoh, T. Koizumi, M Sano, T. Sekioka, N. Watanabe, H. Yomaska and Y. Awaya, J. Phys. B 31 (1998) 1463. (Eu4d)

KP92a A. Koch and S.D. Peyerimhoff, Chem. Phys. Lett. 195 (1992) 104. (CH_4-C1s)

KP92b A. Koch and S.D. Peyerimhoff, Z. Phys. D 23 (1992) 239. (SiH_4, SiH_3F - Si1s)

KP93 A. Koch and S.D. Peyerimhoff, Chem. Phys. 172 (1993) 21. (SiF_2H_2 - Si 1s)

KP94a A. Koch and S.D. Peyerimhoff, Mol. Phys. 83 (1994) 471. (SiH_4 - Si1s)

KP94b A. Koch and S.D. Peyerimhoff, Chem. Phys. 189 (1994) 67. (H_2O, D_2O - O1s)

KPR81 Y.S. Kim, R.H. Pratt and A. Ron, Phys. Rev. A 24 (1981) 1626. (U 4f, Sn 3d)

KP&01 C. Kolczewski, R. Puttner, O. Plashkevych, H. Agren, V. Staemmler, M. Martins, G. Snell, A.S. Schlachter, M. Sant'Anna, G. Kaindl and L.G.M. Pettersson, J. Chem. Phys. 115 (2001) 6426. (C_5H_5N – C1s, N1s)

KRT77 G.C. King, F.H. Read and M. Tronc, Chem. Phys. Lett. 52 (1977) 50. (N_2 - N1s)

KR&90 M. Kutzner, V. Rdojevic, H.P. Kelly and Z. Altun, Phys. Scripta 41 (1990) 823 (Ba4d)

KR&02 E. Kukk, J. Rius i Riu, M. Stankiewicz, P. A. Hatherly, P. Erman, E. Rachlew, P. Winiarczyk, M. Huttula and S. Aksela, Phys. Rev. A 66 (2002) 012704. (CD_4 – C1s)

KS79 E.E. Koch and B.F. Sonntag in, Topics in Current Physics 10 *Synchrotron Radiation*. (Springer, Heidelberg, 1979) 269. (review)

KS98 P. Van Kempen and G. O'Sullivan, J. Phys. B 31 (1998) L135. (Sc3p, Ti3p)

KS01 T Kerkau and V Schmidt, J. Phys. B 34 (2001) 839. (CO – C1s, O1s)

KSP96 A.G. Kochur, V.L. Sukhorukov and I.D. Petrov, J. Phys. B 29 (1996) 4565. (Eu4d)

KSY92 N. Kosugi, K. Shigesma and A. Yagashita, Chem. Phys. Lett. 190 (1992) 481 (O_2 - O1s).

KS&84 P.H. Kobrin, S. Southworth, C.M. Truesdale, D.W. Lindle, U.Becker and D.A. Shirley, Phys. Rev. A 29 (1984) 194. (Ne1s)

KS&86 I. Kojima, A.K. Srivastava, E. Miyazaki and H. Adachi, J. Chem. Phys. 84 (1986) 4455. (CO-C1s,O1s)

KS&93 A.L.D. Kilcoyne, M. Schmidbauer, A. Koch, K.J. Randall and J. Feldhaus, J. Chem. Phys. 98 (1993) 6735. (H_2CO, C_2H_4 - C1s)

KT&77 G.C. King, M. Tronc, F.H. Read and R.C. Bradford, J. Phys. B 10 (1977) 2479. (Ar1s, Kr3d, Xe4d)

KT&96 H. Kjeldsen, T.D. Thomas, P. Lablanquie, M. Lavollée, F. Penent, M. Hochlaf and R.I. Hall, J. Phys. B 29 (1996) 1689. (Ar2p)

KU&95 N. Kosugi, K. Ueda, Y. Shimizu, H. Chiba, M. Okunishi, K. Ohnori, Y. Sato and E. Shigemasa, Chem. Phys. Lett. 246 (1995) 475. (CH_3F - C1s)

KU&99 N.M. Kaachnik, K. Ueda, Y. Muaramtsu and Y. Sato, J. Phys. B 31 (1998) L1791. (HCl – Cl2p)

KW81 A.B. Kunz and T.O. Woodruff, Sol. St. Comm. 38 (1981) 629. (LiH-Li1s)

KWM93 M. Kutzner, D. Winn and S. Mattingly, Phys. Rev. A 48 (1993) 404. (Be1s, Mg2p, Ca3p, Sr3d, Ba3d, Ba4d)

KWR98 A. Knop, B. Wassermann and E. Rühl, Phys. Rev. Lett. 80 (1998) 2302. (Kr_n - Kr3d)

KW&98 E. Kukk, A. Wills, N. Berrah, B. Langer, J.D. Bozek, O. Nayadin, M. Alsherhi, A. Farhat and D. Cubaynes, Phys. Rev. A 57 (1998) R1485. (HCl - Cl2p)

KY90 A.N. Khoperskii and V.A. Yavna, Opt. Spec. (USSR) 69 (1990) 314. (Opt. i Spekt. 69 (1990) 523). (Ar2p)

KY91 A.N. Khoperskii and V.A. Yavna, Opt. Spec. (USSR) 70 (1991) 154. (Opt. i Spekt. 70 (1990) 258) (Mn3p)

KY95 A.N. Khoperskii and V.A. Yavna, J.E.T.P. 81 (1995) 671. (ZETP(R) 108 (1995) 1223). (Ar1s)

KY97 A.N. Khoperskii and V.A. Yavna, Opt. Spectosk (USSR) 82 (1997) 1. (Opt. Spec. 82 (1997) 5). (Ar2s)

KYK86 N. Kosugi, T. Yokoyama and H. Kuroda, Chem. Phys. 104 (1986) 449. (BF_3-B1s)

KY&87 A.N. Khoperskii, V.A. Yavna and I.D. Petrov, Opt. Spec. (USSR) 63 (1987) 119. (Opt. i Spekt. 63 (1987) 204). (Ar2p)

KY&02 K Kawatsura, H Yamaoka, M Oura, T Hayaishi, T Sekioka, A Agui, A Yoshigoe and F Koike, J. Phys. B 35 (2000) 4147. (O1s, Ne1s)

L65 R.J. Liefield, Appl. Phys. Lett. 7 (1965) 276. (Ne1s)

L72 R.E. LaVilla, J. Chem.Phys. 57 (1972) 899. (SF_6 - S1s, S2p, F1s)

L73 R.E. LaVilla, J. Chem. Phys. 58 (1973) 3841. (CH_xF_{4-x} (x=1-4) - F1s)

L75a R.E. LaVilla, J. Chem. Phys. 62 (1975) 2209. (H_2S - S1s)

L75b R.E. LaVilla, J. Chem. Phys. 63 (1975) 2733. (O_2, CO_2 - O1s)

L79 R.E. LaVilla, Phys. Rev. A 19 (1979) 1999. (Na1s)

L86 E. Lindholm, J. Chem. Phys. 85 (1986) 1484. (C_4H_6, C_6H_6-C1s)

L89 D.W. Lindle, Nucl. Inst. Meth. A 280 (1989) 161. (CH_3Cl - Cl1s)

L91 D.L. Lynch, Phys. Rev. A 43 (1991) 5176. (N_2-N1s; CO-C1s)

L92 A. Lisini, AIP Conf. Proc. (Grenoble SR Dynamics) 258 (1992) 149. (Li1s)

L94 F.P. Larkins, Nucl. Inst. Meth. B 87 (1994) 215. (CO_2 - C1s; N_2O - N1s)

L95 P. Lablanquie, J. Electron Spectrosc. 76 (1995) 63. ($Fe(CO)_2(NO)_2$ - C1s)

L96a B. Lahmann, Aust. J. Phys. 49 (1996) 365. (Ar2p)

L96b F.P. Larkins, Aust. J. Phys. 49 (1996) 457. (CO -C1s; O_2 - O1s)

L98a Z.H. Levine, J. Phys. B 31 (1998) 3155. (Fe3p, Mn3p)

L98b R. Lakanen, J. El. Spec. 87 (1998) 253. (Rb3d)

L99 M. Lavollée, Rev. Sci. Inst. 70 (1999) 2968. (CS_2 – S2p)

LA93 C. Liegener and H. Agren, Phys. Rev. B 48 (1993) 789. (C_2H_4, C_4H_6, C_6H_8 - C1s)

LAG96 Y. Luo, H. Agren and F. Gel'mukhanov, Phys. Rev. A 53 (1996) 1340. (C_6H_7N -C1s; CF_2Cl_2,CF_3Cl -Cl 1s)

LAL91 E. Lindholm, L. Asbrink and S. Ljunggren, J. Phys. Chem. 95 (1991) 3923. (CH_4, C_2H_n, n=2,4,6; C_3H_4, C_3H_8, C_4H_8, c-C_3H_6, C_6H_6, C_6H_{12}, $C_{10}H_8$ - C1s; CO, CO_2, H_2CO, H_2CO_2, CH_3OH, CH_3OCH_3 - C1s, O1s; HCN, CH_3NH_2,NMe_3 - C1s, N1s; N_2, N_2O, NH_3, NF_3 - N1s; F_2, HF, NF_3 - F1s; CF_4, CH_3F, C_2F_4 - C1s, F1s)

LA&95 Y. Luo, H. Agren, J. Guo, P. Skytt, N. Wassdahl and J. Nordgren, Phys. Rev. A 52 (1995) 3730. ($C_6H_5NH_2$ - C1s)

LBB92 G. Li, F. Bridges and G.S. Brown, Phys. Rev. Lett. 68 (1992) 1609 (Kr1s).

LBH90 A. Lisini, P.G. Burke and A. Hibbert, J. Phys. B 23 (1990) 3767. (Li1s)

LBZ64 A.P. Lukirskii, I.A. Brytov and T.M. Zimkina, Opt. Spectrosc. 17 (1964) 234 [Opt. Spektrosk. 17 (1964) 438]. (Kr3d; Xe4d; CH_4, $CH_2(OCH_3)_2$ -C1s)

LB&90 J.C. Levin, C. Biedermann, N. Keller, L. Liljeby, C.S. O, R.T. Short, I.A. Sellin and D.W. Lindle, Phys. Rev. Lett. 65 (1990) 988. (Ar1s)

LB&91 J.C. Levin, C. Biedermann, N. Keller, L. Liljeby, R.T. Short, I.A. Sellin and D.W. Lindle, Nucl. Inst. Meth. B 56/57 (1991) 124. (Ar1s)

LB&93 Z.F. Liu, G.M. Bancroft, K.H. Tan and M. Schachter, Phys. Rev. A 48 (1993) R4019. (HBr - Br3d)

LB&94a Z.F. Liu, G.M. Bancroft, K.H. Tan and M. Schachter, Phys. Rev. Lett. 72 (1994) 621. (HBr - Br3d)

LB&94b C.U. Larsson, A. Beutler, O. Björneholm, F. Federmann, U. Hahn, A. Rieck, S. Verbin and T. Möller, Nucl. Inst. Meth. A 337 (1994) 603. (N_2 - N1s; Ne1s; H_2O - O1s)

LB&94c Z.F. Liu, G.M. Bancroft, K.H. Tan and M. Schachter, J. El. Spec. 67 (1994) 299. (HHBr - Br 3d)

LB&95 Z.F. Liu, G.M. Bancroft, J.S. Tse and Z.Z. Yang, Chem. Phys. 192 (1995) 255. (H_2S - S2p, HCl,Cl_2 - Cl2p; PH_3 - P2p; SiH_4 - Si 2p)

LB&96 B. Langer, N. Berrah, A. Farhat, O. Hemmers and J.D. Bozek, Phys. Rev. A 53 (1996) R1946. (Xe4d)

LB&97 B. Langer, N. Berrah, A. Farhat, M. Humphrey, D. Cubaynes, A. Menzel and U. Becker, J. Phys. B 30 (1997 42551. (Xe4d)

LCH03 R. Lessard, G. Cooper and A.P. Hitchcock, J. Electron Spectrosc. (2003) in preparation. ($C_2H_5N_3O_2$, $C_3H_6N_2O_2$, $C_4H_7NO_2$ - C1s, N1s, O1s; $C_4H_6O_3$, $C_4H_6O_5$, $C_5H_8O_2$, $C_5H_8O_4$, $C_{10}H_{19}O_4$ - C1s, O1s)

LCS87 P. Letardi, R. Camilloni and G. Stefani, J. Phys. (Paris) 48 C-9 (1987) 1125 (CF4 - C1s EXELFS)

LCS89 P. Letardi, R. Camilloni and G. Stefani, Phys. Rev. B 49 (1989) 3311. (CO_2 - O1s)

LC&87 D.W. Lindle, P.L. Cowan, R.E. LaVilla, T.E. Jach, R.D. Deslattes, R.C.C. Perera and B. Karlin, J. Phys. (Paris) 48 C-9 (1987) 761. (CF_3Cl - Cl1s)

LC&88a D.W. Lindle, P.L. Cowan, R.E. LaVilla, T.E. Jach, R.D. Deslattes, B. Karlin, J.A. Sheehey, T.J. Gil and P.W. Langhoff, Phys. Rev. Lett 60 (1988) 1010. (CH_3Cl-Cl1s)

LC&88b D.W. Lindle, P.L. Cowan, R.E. LaVilla, T.E. Jach, R.D. Deslattes, R.C.C. Perera and B. Karlin, SPIE 911 (1988) 54. (CH_3Cl-Cl1s)

LC&90 Z.F. Liu, J.N. Cutler, G.M. Bancroft, K.H. Tan, R.G. Cavell and J.S. Tse, Chem. Phys. Lett. 172 (1990) 421. (PX_3, X=H, CH_3, CF_3 - P2p)

LC&91 D.W. Lindle, P.L. Cowan, T. Jach, R.E. LaVilla, R.D. Deslattes and R.C.C. Perera, Phys. Rev. A 43 (1991) 2353. (CH_3Cl, CF_xCl_{4-x}, x=1,2,3 - Cl1s)

LC&92a Z.F. Liu, J.N. Cutler, G.M. Bancroft, K.H. Tan, R.G. Cavell and J.S. Tse, Chem. Phys. 168 (1992) 133. ($POCl_3$, POF_3, PF_5 - P2p).

LC&92b W.G. Lyman, P.K. Caroll, J.T. Costello, D. Evans and G. O'Sullivan, J. Phys. B 25 (1992) 3963 (B1s).

LD66 R.E. LaVilla and R.D. Deslattes, J. Chem. Phys. 44 (1966) 4399. (SF_6, H_2S - S1s)

LD72 R.E. LaVilla and R.D. Deslattes, spectra shown in D72. (CF_3SF_5, SF_2O_2, SF_2O - S1s)

LDR83 A. Lahmam-Bennani, A. Duguet and M. Roualt, J. Chem. Phys. 78 (1983) 1838. (Ne1s - compton profile)

LD&92a S. Lee, P.A. Dowben, A.T. Wen, A.P. Hitchcock, J.A. Glass and J.T. Spencer, J. Vac. Sci. Tech. A 10 (1992) 881. (B_5H_9, $B_{10}H_{14}$, $C_2B_{10}H_{12}$ - B1s)

LD&92b R. Locht, W. Denzer, E. Ruhl and H Baumgartel, Chem. Phys. 160 (1992) 477 (N_2 - N1s)

LE&88 F.P. Larkins, W. Eberhardt, I.W. Lyo, R. Murphy and E.W. Plummer, J. Chem. Phys. 88 (1988) 2948. (N_2O - N1s,O1s)

LF&88 D.W. Lindle, T.A. Ferrett, P.A. Heiman and D.A. Shirley, Phys. Rev. A 37 (1988) 3808. (Xe4d)

LG&86 F.W. Lytle, R.B. Greegor, G.H. Via, J.M. Brown and G. Meitzner, J. Phys. (Paris) 47 C-8 (1986) 149. (Ar1s; CCl_4, $C_2H_4Cl_2$ - Cl1s); Stanford prop #944 (1987) (Cl_2, CCl_4 - Cl1s)

LG&96 T. Luhmann, Ch. Gerth, M. Martins, M. Richter and P. Zimmermann, Phys. Rev. Lett. 76 (1996) 4320. (Eu4d, Sm4d)

LG&98 T. Luhmann, Ch. Gerth, M. Groen, M.Martins, B. Obst, M. Richter and P. Zimmermann, Phys. Rev. A 57 (1998) 282. (Xe4d)

LHC02 H.Lin, C. S. Hsue, and K.T. Chung, Phys. Rev A 65 (2002) 032706. (Be1s)

LH&87 D.W. Lindle, P.A. Heiman, T.A. Ferrett, M.N. Piancastelli and D.A. Shirley, Phys. Rev. A 35 (1987) 4605. (Kr3d)

LH&94 K. Lee, S.L. Hulbert, P. Kuiper, D. Ji and D.M. Hanson, Nucl. Inst. Meth. A 347 (1994) 446. (Ar2p; N_2O - N1s)

LK&84 D.W. Lindle, P.H. Kobrin, C.M. Truesdale, T.A. Ferrett, P.A. Heiman, H.G. Kerkoff, U. Becker and D.A. Shirley, Phys. Rev. A 30 (1984) 239. (CH_3I-I4d)

LK&90 K. Lee, D.Y. Kim, C.I. Ma, D.A. Lapiano-Smith and D.M. Hanson, J. Chem. Phys. 93 (1990) 7936. (N_2 - N1s; O_2 - O1s)

LK&94 K. Lee, D.Y. Kim, C.I. Ma, and D.M. Hanson, J. Chem. Phys. 100 (1994) 8550. (N_2 - N1s)

LL00 P. Lin and R.R. Lucchese, J. Chem. Phys. 113 (2000) 1843. (C_2H_2 – C1s)

LLM90c T. LeBrun, M. Lavollee and P. Morin, AIP Conf. Proc. 215 (1990) 846. (N_2O - N1s; HBr - Br3d)

LL&90a D. Lapiano-Smith, K. Lee, C.I. Ma, K. Wu and D.M. Hanson, J. Electron Spectrosc. 51 (1990) 221. (O_2 - O1s)

LL&90b D. Lapiano-Smith, K. Lee, C.I. Ma, K. Wu and D.M. Hanson, J. Chem. Phys. 93 (1990) 2169. (O_2 - O1s)

LL&93 T. LeBrun, M. Lavollee, M. Simon and P. Morin, J. Chem. Phys. 98 (1993) 2534. (N_2O-N1s)

LM82a R.R. Lucchese and V. McKoy, Phys. Rev. A 25 (1982) 2572. (CO_2-O1s)

LM82b R.R. Lucchese and V. McKoy, Phys. Rev. A 26 (1982) 1406. (CO_2-C1s,O1s)

LM84 D.L. Lynch and V. McKoy, Phys. Rev. A 30 (1984) 1561. (N_2-N1s)

LM91 P. Lablanquie and P. Morin, J. Phys. B 24 (1991) 4349. (Kr3d)

LMS81 R.E. LaVilla, G. Mehlman and E.B. Saloman, J. Phys. B 14 (1981) L1. (Na2s)

LM&81 T.B. Lucarto, T.J. McIlrath, J. Sugar, S.M. Younger, Phys. Rev. Lett. 47 (1981) 1124. (Ba, Ba^+, Ba^{2+} - Ba 4d)

LM&89 D.A. Lapiano-Smith, C.I. Ma, K.T. Wu and D.M. Hanson, J. Chem. Phys. 90 (1989) 2162. (CF_4 - C1s,F1s; SiF_4 - F1s)

LM&94 D.W. Lindle, W.L. Manner, L. Steinbeck, E. Villalobos, J.C. Levin and I.A. Sellin, J. El. Spec. 67 (1994) 375. (Ar1s; Xe2p; H_2S-S1s; CH_3Cl, CF_3Cl, HCl - Cl 1s)

LN43 A.E. Lindh and A. Nilsson, Arkiv. Mat. Astron. Fysik, 29A (1943) 1. (HCl,Cl_2 - Cl1s)

LOL84 G. Leveque, C.G. Olson and D.W. Lynch, Sol. St. Comm 51 (1984) 377 (In 4d)

LPL85 X. Liang, X. Pan and J. Li, Chin. Phys. Lett. 2 (1985) 545. (NO-N1s)

LP&95 T. Liebsch, O. Plotzke, F. Heisen, U. Heigenhahn, Oltemners, R. Wehlitz, J. Viefhaus, B. Langer, S.B. Whitfield and U. Becker, Phys. Rev. A 52 (1995) 457. (C_{60} - C1s)

LP&00 P. Lablanquie, F. Pennent, R.I. Hall, H. Kjeldsen, J.H. D. Eland, A. Muehleisen, P. Pelican, Z. Smit, M. Zitnik and F. Koike, Phys. Rev. Lett. 84 (2000) 47. (Ar2s)

LS&87 S.V. Lavrentev, V.L. Suhkorukov, A.N. Khoperskii and I.D. Petrov, Opt. Spectrosc. (USSR) 62 (1987) 278

[Opt. i Spek. 62 (1987) 466] (Ar2s).

LS&89 P. Lablanquie, A.C.A. de Souza, G.G.B. de Souza, P. Morin and I. Nenner, J. Phys. Chem. 90 (1989) 7078. (SiF_4 - Si2p)

LS&02 P. Lablanquie, S. Sheinerman, F. Penent, R.I. Hall, M. Ahmad, T. Aoto, Y. Hikosaka and K. Ito, J. Phys. B 35 (2002) 3265. (Xe4d)

LT&84 D.W. Lindle, C.M. Truesdale, P.H. Kobrin, T.A. Ferrett, P.A. Heimann, U. Becker, H.G. Kerkhoff and D.A. Shirley, J. Chem. Phys. 81 (1984) 5375. (N_2, NO - N1s)

LUH97 J.F. Lehmann, S.G. Urquhart and A.P. Hitchcock, unpublished. ($C_7H_{12}O_2$, $C_9H_8O_2$, $C_{14}H_{10}O_3$, $C_{15}H_{24}O$ - C1s, O1s)

LUH99 R. Lessard, S.G. Urquhart and A.P. Hitchcock, unpublished. (C_8H_6, $C_{29}H_{20}O$ - C1s)

LU&99 J.F. Lehmann, L. Ennis, A.P. Hitchcock, S.G. Urquhart, K. Hatano, S. Gupta and M.K. Denk, Organometallics 18 (1999) 1862. ($C_{10}GeH_{20}N_2$, $C_{10}GeH_{22}N_2$, $C_{10}GeH_{24}N_2$ – C1s, Ge3p, N1s; $C_{10}H_{20}N_2Si$, $C_{10}H_{22}N_2Si$, $C_{10}H_{24}N_2Si$ – C1s, N1s, Si1s; $C_{10}H_{20}N_2$, $C_{10}H_{22}N_2$, $C_{11}H_{22}N_2$, $C_{11}H_{22}N_2$, $C_{11}H_{24}N_2$, $C_{11}H_{24}N_2$ – C1s, N1s)

LV&91 B.Langer, J. Viefhaus, O. Hemners, A. Menzel, R. Wehlitz and U. Becker, Phys. Rev. A 43 (1993) 1652 (Li1s).

LW74 S. Lundqvist and G. Wendin, J. El. Spectrosc. 5 (1974) 513. (Ba4d)

LWP89 J.M. Li, Y.J. Wu and R.H. Pratt, Phys. Rev. A 40 (1989) 3036. (Ne1s)

LZ63 A.P. Lukirskii and T.M. Zimkina, Bull. Acad. Sci USSR Phys. Ser. 27 (1963) 333, 808 [Izv. Akad. Nauk. SSSR Fiz. Ser. 27 (1963) 324, 817]. (Ar2p)

LZB64 A.P. Lukirskii, T.M. Zimkina and I.A. Brytov, Bull. Acad. Sci USSR Phys. Ser. 28 (1964) 681 [Izv. Akad. Nauk. SSSR Fiz. Ser. 28 (1964) 772]. (Kr3d, Xe4d)

M38 T. Magnusson, Nova Acta Reg. Soc. Sci. Upsal. 11 (1938) No. 3. (N_2 -N1s)

M66 D.L. Mott, Phys. Rev. 144 (1966) 94. ($GeCl_4$ - Ge2p,2s; $SiCl_4$ - Si1s)

M70 E.J. McGuire, Sandia Lab Report SC-RR-721 (1970). (Na2p)

M71 L.N. Mazalov, Theor. Exp. Chem. 7 (1971) 37 [Teor. i Eksp. Khim. 7 (1971) 46]. (H_2S - S1s)

M75 M.W.D.Mansfield, Proc. Roy. Soc. London A 346 (1975) 554. (K2p)

M76a M.W.D. Mansfield, Proc. Roy. Soc. London A 348 (1976) 143. (Ca2p)

M76b Yu. F. Migal, J. Struct. Chem. 17 (1976) 350 [Zh. Struk. Khim. 17 (1976) 404] (SF_6-S2p)

M77 M.W.D. Mansfield, Proc. Roy. Soc. London A 358 (1977) 253. (Cr3p)

M85 P. Morin, Photophysics and Photochemistry above 6 eV, F. Lahmani, ed., (Elsevier, Amsterdam, 1985) 1. ($Si(CH_3)_4$-Si2p)

M90 D. Menzel, Appl. Phys. A 51 (1990) 163. (Ar2p)

M93 T. Möller, Synchrotron Radiation News, 6 (1993) 4-16. (N_2-N1s; H_2O-O1s)

M99 N. Murphy, J. Phys. B 32 (1999) L525. (Te4d)

M01 M. Martins, J.Phys. B 34 (2001) 1321, (Cl2p)

M02 M. Martins, J.Phys. B 35 (2002) L223. (Sc3p)

MA&98 K.E. Miyano, U. Arp, S.H. Southworth, T.E. Meehan, T.R. Walsh and F.P. Larkins, Phys. Rev. A 57 (1998) 2430. (COS - S1s)

MA&00 S. Motoki, J Adachi, Y. Hikosaka, K. Ito, M. Sano, K. Soejima, A. Yagashita, G. Raseev and N. Cherepkov, J. Phys. B 33 (100) 4193. (CO – C1s, O1s)

MB84 H. Morawitz and P.S. Bagus, Chem. Phys. Lett. 107 (1984) 59. (AsF_x, x=3,5,6 - As1s)

MB87 D. Mathur and C. Badrinathan, Phys. Lett. A 123 (1987) 345. (I_2 - I4d)

MB93 M.P. de Miranda and C.E. Bielschowsky, J. Mol. Struct. (Theochem) 282 (1993) 71. (Ar2p, CO_2 - C1s, O1s)

MB97 L.M.M.A. Martins and C.E. Bielschowsky, Phys. Rev. A 56 (1997) 2720. (Mg2p, Mg2s, Mg1s)

MBH97 C. McGuiness, K.L. Bell and A. Hibert, J. Phys. B 30 (1997) 59. (C 1s)

MBN95 M.P. de Miranda, C.E. Bielschowsky and M.A.C. Nasciemento, J. Phys. B 28 (1995) L15. (C_2H_2-C1s; N_2-N1s; CO_2 - O1s)

MBS95 D.V. Morgan, R.J. Burtlett and M. Sagurton, Phys. Rev. A 51 (1995) 2939. (Ar1s)

MB&72 L.N. Mazalov, V.M. Bertenev, A.P. Sadovskii and T.I. Guzhavina, J.Struct. Chem. 13 (1972) 799 [Zh. Struk. Khim. 13 (1972) 855]. (SO_2 - S1s)

MB&79 H. Morawitz, P. Bagus, T.C. Clarke, W.D. Gill, P.M. Grant, G.B. Street and D.E. Sayers, Synth. Meth. 1 (1979) 267. (AsF_3, AsF_5 - As1s)

MB&94a M.P. de Miranda, C.E. Bielschowsky, H.M. Boechat Roberty and G.G.B. de Souza, Phys. Rev. A 49 (1994) 2399. (C_2H_2 - C1s)

MB&94b M.P. de Miranda, J.A. Beswick, P. Parent, C. Laffon, G. Tourillon, A. Cassut, G. Nicolas and E.X. Gadea, J. Chem. Phys. 101 (1994) 5500. (C_2H_4, C_4H_6, C_4H_8 - C1s; C_2H_3CN - C1s,N1s)

MB&96 A. Menzel, S. Benzaid, M.O. Krause, C.D. Caldwell, U. Hergenhahn and M. Bissen, Phys. Rev. A 54 (1996) R991. (O1s)

MB&98 C. Miron, M. Bassler et al., MaxLab report (1998) 192. (COS – C1s, S2p)

MB&01 R.R.T. Marinho, O. Björneholm, S.L. Sorensen, I. Hjelte, S. Sundin, M. Bässler, S. Svensson, and A. Naves de Brito, Phys. Rev. A 63(2001) 032514. (Ar2p)

MC68 S.T. Manson and J.W. Cooper, Phys. Rev. 165 (1968) 126. (theory of centrifugal barriers; Xe4d, Kr3d)

MC75a M.W.D. Mansfield and J.P. Connerade, Proc. Roy. Soc. London A 342 (1975) 421. (Rb3d, Rb3p)

MC75b M.W.D. Mansfield and J.P. Connerade, Proc. Roy. Soc. London A 344 (1975) 303. (Sr3d, Sr3p)

MC76 M.W.D. Mansfield and J.P. Connerade, Proc. Roy. Soc. London A 352 (1976) 125. (Eu4d)

MC82 M.W.D. Mansfield and J.P. Connerade, J. Phys. B 15 (1982) 503. (Rb3d, Sr3d)

MCS82 G. Mehlman, J.W. Cooper and E.B. Saloman, Phys. Rev. A 25 (1982) 2113. (Li1s)

MC&87 R. McLaren, S.A. Clark, I. Ishii and A.P. Hitchcock, Phys. Rev. A 36 (1987) 1683. ($C_2F_xH_{4-x}$,x=0-4; C_4H_6-C1s; C_4F_6 - C1s,F1s)

MC&91 Y. Ma, C.T. Chen, G. Meigs, K. Randall and F. Sette, Proc. X-90, AIP Conf. Proc.(1991); Phys. Rev. A 44 (1991) 1848. (CO,CO_2, C_2H_2, C_2D_2, C_2H_6, C_2D_6 - C1s; N_2, NO, N_2O - N1s; O_2 - O1s)

MC&99 T. Möller, A.R.B. de Castro, K. von Haeften, A. Kolmakov, T. Laarmann, O. Löfken, C. Nowak, F. Picucci, M. Riedler, C. Rienecker, A. Wark and M. Wolff, J. El. Spec. 101-103 (1999) 185. ($(NaCl)_n$ – Cl2p)

MC&00 J.P. Mosnier, J. Costello, E. Kennedy and W. Whity, J. Phys. B 33 (2000) 5203. (Li1s)

MD89 F. Muller-Plathe and G.R. Diercksen, Phys. Rev. A 40 (1989) 696. (H_2O -O1s)

ME74 G. Mehlman and J.M. Esteva, Astrophys. J. 188 (1974) 191 (Be1s)

ME88 R. Murphy and W. Eberhardt, J. Chem. Phys. 89 (1988) 4054. (N_2O - O1s)

ME&78 G. Mehlman, D.L. Ederer, E.B. Saloman and J.W. Cooper, J. Phys. B 11 (1978) L689. (Li 1s)

ME&84 L.N. Mazalov, S.B. Erenburg, A.A. Voityuk, Yu.A. Dyaden, G.N. Chekhova, V.M. Bertenev and T.M. Polyanskaya, J. Struct. Chem. 25 (1984) 371. (SO_2 - S1s)

MF&88 L.J. Medhurst, T.A. Ferrett, P.A. Heiman, D.W. Lindle, S.H. Liu and D.A. Shirley, J. Chem. Phys. 89 (1988) 6096. (N_2-N1s; CO, C_2H_4, C_6H_6 - C1s)

MF&02 C. Miron, R. Feifel, O. Bjorneholm, S. Svensson, A. Naves de Brito, S.L. Sorensen, M.N. Piancastelli, M. Simon and P. Mori, Chem. Phys. Lett. 359 (2002) 48. (BF_3 - B1s)

MG&98 C. Miron, R. Guillemin, N. Leclerq, P. Morin and M. Simon, J. Electron Spectrosc. 93 (1998) 95. (SiF_4, $SiCl_4$ - Si2p)

MG&99 M.Magnusson, J. Guo, G Sathe, J.E. Rubensson, J. Nordgren, P. Glans, L. Yang, P. Satek and H. Agren, Phys. Rev. A 59 (1999) 4281. (COS – C1s, O1s, S2p)

MH92 M. Mahalingham and D.M. Hanson, J. Chem. Phys. 97 (1992) 2183. (O_2 - O1s)

MH&89 P. Millie, A.P. Hitchcock, S. Bodeur and I. Nenner, unpublished. (CO_2, COS, CS_2 - C1s, S2p, S1s, O1s)

MH&90 J. Murakami, T.Hayaishi, A. Yagashita and Y. Morioka, Phys. Scripta 41 (1990) 408. (Kr3d)

MH&92a T. Matsuo, T. Hayaishi, Y. Itoh, T. Koizumi, T. Nagata, Y. Sato, E. Shigemasa, A. Yagashita, M. Yoshino and Y.Itikawa, J. Phys. B 25 (1992) 121 (K2p, Ca2p).

MH&92b L.J. Medhurst, P.A.Heimann, M.R.F. Siggel, D.A. Shirley, C.T. Chen, Y. Ma, S. Modesti and F. Sette, Chem.

Phys. Lett. 193 (1992) 493 (CO-C1s, N_2-N1s)

MH&95 C.I. Ma, D.M. Hanson, K. Lee and R.G. Hayes, J. Electron Spectrosc. 75 (1995) 83. (NH_3 -N1s)

MH&99 E. Murakami, T. Hayaishi, Y. Lu, Y. Morioka, F. Koike, E. Shigemasa and A. Yagashita, J. El. Spec. 101-103 (1999) 167. (Xe2s)

MI80 S.T. Manson and M. Inokuti, J. Phys. B 13 (1980) L323. (Cl 1s, Cu 1s, etc.)

MI&87 R. McLaren, I. Ishii, A.P. Hitchcock and M.B. Robin, J. Chem. Phys. 87 (1987) 4344. (H_2O, F_2O, CF_3OF, CF_3OOCF_3, $(CH_3)_3COH$, $(CH_3)_3COOC(CH_3)_3$ - C1s,O1s,F1s)

MJ81 N. Martensson and B. Johansson, J. Phys. B 14 (1981) L37. (Rb3d, Sr3d)

MK80 L.N. Mazalov and A.V. Kondratrenko, Proc. 6th Int. Conf. on Vac. UV Rad. Phys. II-71 (Charlottesville, 1980) (CS_2-S2p; PCl_3-P2p, Cl2p)

MK98 B.M. McLaughlin and K.P. Kirby, J. Phys. B 31 (1998) 4991. (O1s)

MK&76 L.N. Mazalov, A.V. Kondratenko, V.V. Murakhtanov and T.I. Guzhavina, J. Struct. Chem. 17 (1976) 149. [Zh. Struk. Khim. 17 (1976) 174] (Ne-Nels, Ar-Ar1s, HF-F1s, HCl-Cl1s)

MK&98a J. Mursu, A. Kivimaki, H. Aksela and S. Aksela, Phys. Rev. A 38 (1998) R1645. (HCl – Cl2p)

MK&98b K. Maier, A. Kivimaki, B. Kempgens, U. Hergenhahn, M. Neeb, A. Rüdel, M.N. Piancastelli and A.M. Bradshaw, Phys. Rev. A 58 (1998) 3654. (CO_2 – O1s)

ML77 J.J. McIlrath and T.B. Lucarto, Phys. Rev. Lett. 38 (1977) 1390. (Li*-Li1s)

ML01 L.B. Madsen and P. Lambropoulos , J. Phys. B 34 (2001) 1855. (Li1s)

MLE88 R. Murphy, I.W. Lyo and W. Eberhardt, J. Chem. Phys. 88 (1988) 6078. (N_2 - N1s)

MLH93 M. Mahalingham, K. Lee and D.M. Hanson, J. Chem. Phys. 98 (1993) 5239. (NO - N1s)

MLL89 P.Morin, T. LeBrun and P. Lablanquie, Bull. Roy. Soc. Science Liege 58 (1989) 135. (Kr3d, C_2H_3Br, C_2H_5Br - Br3d)

ML&82 L.E. Machado, E.P. Leal, G. Csanak, B.V. McKoy and P.W. Langhoff, J. Electron Spectrosc. 25 (1982) 1. (C_2H_2 - C1s)

ML&91 R. Meyer, D.W. Lindle, S.H. Southworth and P.L. Cowan, Phys. Rev. A 43 (1991) 235. (H_2S - S1s)

ML&93 P. Morin, M. Lavollée, M. Meyer and M. Simon, AIP Conf. Proc. 295 (1993) 139. (N_2O - N1s; CO_2 - C1s; $Fe(CO)_2(NO)_2$ - C1s, N1s)

ML&94a M. Meyer, J. Lacourière, M. Simon, P. Morin and M. Larzillière, Chem. Phys. 187 (1994) 143. (N_2, N_2O - N1s; ICN - I4d)

ML&94b C.I. Ma, K. Lee, D. Ji, D.Y. Kim and D.M. Hanson, Nucl. Inst. Meth A 347 (1994) 453. (N_2O - N1s)

ML&95 M. Meyer, J. Lacoursière, M. Simon and P. Morin, Rev. Sci. Inst. 66 (1995) 1554. (ICN - I4d)

MM&75 L.N. Mazalov, V.V. Murkhtanov, T.I. Guzhavina and A.P. Sadovskii, J. Struct. Chem. 16 (1975) 240, 245 [Zh. Struk. Khim. 16 (1975) 262, 267]. (HCl - Cl1s)

MM&87 M. Meyer, B. Muller, A. Nunnemann, Th. Prescher, E. von Raven, M. Richtler, M. Schmidt, B. Sonntag and P. Zimmerman, Phys. Rev. Lett. 59 (1987) 2963. (Li1s)

MM&99a C. McGuiness, M.Martins, Ph. Wernet, B.F. Sonntag, P. van Kampen, J. P. Moisner, E.J. Kennedy and J.T. Costello, J. Phys. B 32 (1999) L583. (Cr3p)

MM&99b A. Marquette, M. Meyer, F. Sirotti and R.F. Fink, J. Phys. B 32 (1999) L325. (N_2 – N1s)

MM&00 C. McGuiness, M.Martins, P. van Kampen, J. Hirsch, J. P. Moisner, W.W. Whity and J.T. Costello, J. Phys. B 33 (2000) 5077. (Cr3p)

MN86 P. Morin and I. Nenner, Phys. Rev. Lett. 56 (1986) 1913. (HBr-Br3d)

MN87 P. Morin and I. Nenner, Phys. Scripta T17 (1987) 171. (CH_3Br, HBr - Br3d; CH_3I, HI - I4d)

MNN92 P. Morin, L. Nahon and I. Nenner, AIP Conf. Proc. 258 (1992) 277. (I4d)

MN&74a Y. Morioka, M. Nakamura, E. Ishiguro and M. Sasanuma, Proc. 4th Int. Vac. UV Rad. Phys. Conf. (Hamburg, 1974) 92. (N_2, NO - N1s)

MN&74b Y. Morioka, M. Nakamura, E. Ishiguro and M. Sasanuma, J. Chem. Phys. 61 (1974) 1426. (NO - N1s)

MN&86 J. Murakami, M.C. Nelson, S.L. Anderson and D.M. Hanson, J. Chem. Phys. 85 (1986) 5755. (N_2O-N1s,O1s)

MP81 M. Mazzoni and M. Pettini, Phys. Lett. 85A (1981) 331. (Br3d)

MP&86 M. Meyer, Th. Prescher, E. Von Raven, M. Richter, E. Schmidt, B. Sonntag and H.E. Wetzel, Z. Phys. D 2 (1986) 347. (Ti3p, Cr3p, Mn3p, Fe3p, Co3p, Ni3p, Ce4d)

MRR84a D. Mathur, F.A. Rajgara and A. Roy, Chem. Phys. Lett. 104 (1984) 500. (CH_4-C1s, N_2-N1s)

MRR84b D. Mathur, F.A. Rajgara and A. Roy, Chem. Phys. Lett. 107 (1984) 39. (CH_4-C1s)

MR&85 D. Mathur, A. Roy, S.V. Krishna Kumar and F.A. Rajgara, Phys. Rev. A 31 (1985) 2709. (N_2 - N1s)

MR&89 M. Meyer, E. von Raven, M. Richtor, B. Sonntag, R.D. Cowan and J.E. Hansen, Phys. Rev. A 39 (1989) 4319. (Ca2p)

MR&90 D. Menzel, G. Rocker, D. Coulman, P. Feulner and W. Wurth, Phys. Scripta 41 (1990) 588. (H_2O - O1s; NH_3 - N1s; CH_4 - C1s)

MR&91 M. Meyer, E. von Raven, B. Sonntag and J.E. Hansen, Phys. Rev. A 43 (1991) 177. (Ar2p)

MR&92 D. Menzel, C. Rocker, H.P. Steinruck, D. Coulman, P.A. Heimann, W. Huber, D. Zebisch and D.R. Lloyd, J. Chem. Phys. 96 (1992) 1724 (C_6H_6 - C1s)

MR&02 R. Diez Muino, D. Rolles, F.J. Garcia de Abajo, C.S. Fadley and M.A. Van Hove, J.Phys. B 35 (2002) L359. (CO – C1s; N_2 – N1s)

MS71 L.N. Mazalov and A.P. Sadovskii, Theor Exp. Chem. 7 (1971) 37 [Teor i Eksp. Khim. 7 (1971) 46]. (H_2S -

S1s)

MSB97 D.V. Morgan, M. Sagurton and R.J. Bartlett, Phys. Rev. A 55 (1997) 1113. (Ne1s)

MSN89 P. Morin, M. Simon and I. Nenner, unpublished. ($Fe(CO)_5$, $Fe_2(CO)_9$ - C1s, Fe3p, Fe2p, O1s)

MST83 G. Materlick, B. Sonntag and M. Tausch, Phys. Rev. Lett. 51 (1983) 1300 (Ce, Eu, Gd, Sm - 2s, 2p)

MSZ96 M. Martins, P. Slodeczek and P. Zimmermann, J. Phys. B 29 (1996) L745. (Au5p)

MS&73 L.N. Mazalov, A.P. Sadovskii, P.I. Vadash and F.G. Gel'mukhanov, J. Struct. Chem. 14 (1973) 234 [Zh. Struk. Khim. 14 (1973) 262]. (HCl, Cl_2 - Cl1s, H_2S, SO_2 - S1s)

MS&84 K. Muller-Dethelfs, M. Sander, L.A. Chewter and E.W. Schag, J. Phys. Chem. 88 (1984) 6098. (CF_3CH_3-C1s,F1s)

MS&86 P. Morin, G.G.B. de Souza, I. Nenner and P. Lablanquie, Phys. Rev. Lett. 56 (1986) 131. ($Si(CH_3)_4$ - Si2p)

MS&89 Y. Ma, F. Sette, G. Meigs, S. Modesti and C.T. Chen, Phys. Rev. Lett. 63 (1989) 2044. (C_2H_4, C_2D_4, C_6H_6, C_6D_6)

MS&90 Y. Ma, F. Sette, G. Meigs, S. Modesti and C.T. Chen, Phys. Scripta 41 (1990) 833. (C_2H_4, C_6H_6 - C1s)

MS&95a C. McGuiness, G. O'Sullivan, P.K. Carroll, D. Audley and M.W.D. Mansfield, Phys. Rev. A 51 (1995) 2053. (Sr3d)

MS&95b M.A. MacDonald, S.H. Southworth, J.C. Levin, A. Hennis, R.D. Deslattes, T. LeBrun, Y. Azuma, P.L. Cowan and B.A. Karlin, Phys. Rev. A 51 (1995) 3598. (Xe2p)

MS&97a M. Martins, P. Slodeczaek, K. Tiedtke and P. Zimmermann, Phys. Rev. A 55 (1997) R8. (Ir5p,4f)

MS&97b J.D. Mills, J.A. Sheehey, T.A. Ferrett, S.H. Southworth, R. Meyer, D.W. Lindle and P.W. Langhoff, Phys. Rev. Lett. 79 (1997) 383. (Cl_2 - Cl1s)

MS&97c M. Martins, P. Slodeczaek, K. Tiedtke and P. Zimmermann, Phys. Rev. A 56 (1997) 1329. (Ta5p,4f; Rh5p,4f)

MS&97d C. Miron, M. Simon, N.Leclerq and P. Morin, Rev. Sci. Inst. 68 (1997) 3728. (N_2, N_2O – N1s)

MS&98a P. Morin, M. Simon, C. Miron, N. Leclerq and D.L. Hansen, J. Electron Spectrosc. 93 (1998) 49. (N_2O - N1s; $BrCH_2Cl$ - Cl2p)

MS&98b C. Miron, M. Simon, N.Leclerq, D.L. Hansen and P. Morin, Phys. Rev. Lett. 81 (1998) 4104. ($ClCH_2Br$ – Br3d, Cl2p)

MS&00 P. Morin, M. Simon, C. Miron, N.Leclerq, E. Kukk, J.D. Bozek and N. Berrah, Phys. Rev. A 61 (2000) 050701. (CO_2 – C1s)

MU&99 Y. Muramatsu, K. Ueda, Y. Shimizu, H. Chiba, K. Amano, Y. Sato and H. Nakamatsu, J. Phys. B 32 (1999) L213. (CF_4 – F1s)

MW76 G.A. Martin and W.L. Wiese, Phys. Rev. A 13 (1976) 699. (Li1s)

MYM77 L.N. Mazalov, V.R. Yumatov and V.V. Murakhtanov, *X-ray Spectra of Molecules*, (Russian), Nauka Press,

Novosibirsk, 1977.

MY&02a T. Matsui, H. Yashii, A. Higurashi, E. Murakami, T. Aoto, T. Onuma, Y. Morioa, A. Yagashita and T. Hayaishi, J.Phys. B 35 (2002) 3069. (Kr3p)

MY&02b M. Oura, H. Yamaoka, K. Kawatsura, K.Takahiro, N. Takeshima, Y. Zou, R. Hutton, . Ito, Y. Awaya, M. Terasawa, T. Sekioka and T.Mukoyama, J. Phys. B 35 (2002). 3847. (Ca1s, Ti1s, V1s)

N70 V. I. Nefedov, J. Struct. Chem. 11 (1970) 273 [Zh. Struk. Khim. 11 (1970) 292]. (SF_6 - S2p, $Cr(CO)_6$ - Cr1s)

N71a V. I. Nefedov, J. Struct. Chem. 12 (1971) 276 [Zh. Struk. Khim. 12 (1971) 303]. (CCl_4 - Cl2p)

N71b G.H. Newsom, Astrophys. J. 166 (1971) 243. (Mg2p)

N79 K. Nuroh, J. Phys. B 12 (1979) 1125. (Fe3p)

N87 I. Nenner, NATO ASI on 'Giant Resonances', (1987) 259 (J.P. Connerade, J.M. Esteva and R.C. Karnatak, eds) (SiF_4,SiH_4-Si2p)

N88 I. Nenner, Proc. XV ICPEAC (North-Holland, 1988) 517. (HBr,CH_3Br - Br3d; SiH_4, $Si(CH_3)_4$ -Si2p)

N95 H. Nakamatsu. Chem. Phys. 200 (1995) 49. (PCl_3, PF_3 - P2p)

N02 K. Nabusada, J. Phys. B 35 (2002) 3055. (CO_2 – C1s)

NAV88a S.V. Nekipelov, V.N. Akimov and A.S. Vinogradov, Optics & Spectrosc. 64 (1988) 487 [Opt. Spectrosk. 64 (1988) 817]. (BF_3 - B1s,F1s)

NAV88b S.V. Nekipelov, V.N. Akimov and A.S. Vinogradov, Sov. Phys. Sol. St. 30 (1988) 2095 [Fiz. Tverd. Tela (Leningrad) 30 (1988) 3647]. (NO - N1s,O1s; BF_3 - B1s,F1s)

NAV91 S.V. Nekipelov, V.N. Akimov and A.S. Vinogradov, Sov. Phys. Sol. St. 33 (1991) 378 (Fiz. Tverd. Tela (Len) 33 (1991) 663) (BF_3 - B1s)

NB71 M.S. Nakhmanson and V.I. Baranovskii, Theor. Exp. Chem. 7 (1971) 11 [Teor. i Eksp. Khim. 7 (1971) 15]. (BF_3, BCl_3 - B1s)

NB87 I. Nenner and J.A. Beswick, *Photodissociation and Photoionisation*, Ch. 6 in *Handbook of Synchrotron Radiation*, Vol. 2 (G. Marr, ed) (Elsevier, 1987) (CS_2-S1s,C1s,S2p; SO_2-S1s; $Si(CH_3)_4$-Si2p; HBr-Br3d; review)

NB95 M. Nooijen and R.J. Bartlett, J. Chem. Phys. 102 (1995) 6735. (CO, H_2CO - C1s, O1s; N_2 - N1s; C_2H_2, C_2H_4 - C1s)

NBE94 M. Neeb, M. Biermann and W. Eberhardt, J. El. Spec. 69 (1994) 239. (CO_2 - C1s)

ND&90 L. Nahon, L. Duffy, P. Morin, F. Combet-Farnoux, J. Trembley and M. Larzilliere, Phys. Rev. A 41 (1990) 4879. (I4d)

NE&88 I. Nenner, J.H.D. Eland, P. Lablanquie, J. Delwiche, M.J. Hubin-Franskin, P. Roy, P. Morin and A.P. Hitchcock, *Electron-Molecule Scattering and Photoionisation*, (Plenum, 1988), (Proc. XV ICPEAC, Brighton, 1987) p. 15. (CH_3Br-Br3d; CO-C1s,O1s)

NF&96 S. Nagaoka, T. Fujibuchi, U. Nagashima, S. Kato, K. Takeno and I. Koyano, J. Electron Spectrosc. 79 (1996) 499. ($C_{11}H_{21}NOSi_2$ - Si2p)

NF&97 S. Nagaoka, T. Fujibuchi, J. Ohshita, M. Ishikawa and I. Koyano, Int. J. Mass. Spec. Ion Phys. 171 (1997) 95. ($C_5F_3H_{13}Si$ - Si2p)

NF&02 S. Nagaoka, T. Fujibuchi, J. Ohshita, U. Nagashima I. Koyano, Chem. Phys. 276 (2002) 243. (CF_3H_3Si, $C_5Cl_3H_9Si_2$, $C_3F_3H_9Si_2$, $C_4H_{12}Si$, $C_4F_3H_{11}Si_2$, $C_5F_3H_9Si_2$, $C_5F_3H_{11}Si_2$, $C_5F_3H_{13}Si_2$, $C_5Cl_3H_9Si_2$, $C_6F_3H_{15}Si_2$ Si2p)

NG99 G. Nicola and F.X. Gadea, J. Chem. Phys. 111 (1999) 10537. (C_2H_4 – C1s)

NG&97 J. Nordgren, P. Glans, K. Gunnelin, J. Guo, P. Skytt, C. Sathe and N. Wassdahl, App. Phys. A 65 (1997) 97. (N_2 - N1s; CO, CO_2, $C_6H_5NH_2$ - C1s; CO, CO_2, O_2 - O1s)

NH02 S.A. Navikov and A.N. Hopersky, J. Phys. B 35 (2002) L339. (Ne1s)

NHS74 U. Nielsen, R. Haensel and W.H.E. Schwarz, J. Chem. Phys. 58 (1974) 3581. (XeF_6 -Xe4d)

NH&88 I. Nenner, M.J. Hubin-Franskin, J. Delwiche, P. Morin and S. Bodeur, J. Mol. Struct. 173 (1988) 269. (HBr, CH_3Br - Br3d; SiH_4-Si2p; COS, CO_2, CS_2 -C1s, O1s, S1s, S2p)

NH&03 J.J. Neville, A..P. Hitchcock, A. Jurgensen and R.G. Cavell, J. El. Spec. in preparation. (PF_3, PCl_3, PCl_2CF_3 – P2p, Cl2p)

NIH86 D.C. Newbury, I. Ishii and A.P. Hitchcock, Can. J. Chem. 64 (1986) 1145. (C_4H_4O,C_4H_8O,C_5H_8O-C1s,O1s; C_4H_4NH,C_4H_8NH,C_5H_8NH,$C_5H_{10}NH$-C1s,N1s)

NI&81 K. Ninomiya, E. Ishiguro, S. Iwata, A. Mikuni and T. Sasaki, J. Phys. B 14 (1981) 1777. (Cl_2, HCl - Cl2p)

NI&89 T. Nagata, Y. Itoh, T. Hayaishi, Y. Itikawa, T. Koizumi, T. Matsua, Y. Sato, E. Shigemasa, A. Yagashita and M. Yochimo, J. Phys. B 22 (1989) 3865. (Cs4d, Ba4d)

NI&00 S. Nagaoka, T. Ibuki, N. Sato, Y. Shimizu, Y. Senba, K. Kamimori, Y. Tamenori, H. Ohashi and I.H. Suzuki, J. Phys. B 33 (2000) L605. (Kr2p)

NJ&98 J.J. Neville, A. Jurgensen, R.G. Cavell, N. Kosugi and A.P. Hitchcock, Chem. Phys. 238 (1998) 201. (PF_3, PCl_3, PCl_2CF_3, OPF_3, SPF_3 - P2p, P2s; SPF_3 - S2p; PF_3, PCl_2CF_3, OPF_3, SPF_3 - F1s; PCl_3, PCl_2CF_3 - Cl2p)

NKM90 S. Nagoaka, I. Koyano and T. Masuoka, Phys. Scripta 41 (1990) 472. ($Al(CH_3)_3$ - Al2p)

NK&89 S. Nagaoka, T. Koyano, K. Ueda, E. Shigemasa, Y. Sato, A. Yagashita, T. Nagata and T. Hayaishi, Chem. Phys. Lett. 154 (1989) 363. ($Pb(CH_3)_4$ - Pb5p,4f, C1s)

NK&91 S. Nagaoka, T. Koyano, T. Imamura and T. Masukoka, Appl. Orgmet. Chem. 5 (1991) 269. ($Al_2(CH_3)_6$, $Al(CH_3)_3Cl_3$ - Al2p)

NK&96a M. Neeb, A. Kivimaki, B. Kempgens, H.M. Köppe, J. Feldhaus and A.M. Bradshaw, Phys. Rev. Lett. 76 (1996) 2250. (N_2 - N1s)

NK&96b M. Neeb, A. Kivimaki, B. Kempgens, H.M. Köppe and A.M. Bradshaw, J. Electron Spectrosc. 79 (1996) 445. (N_2 - N1s)

NK&97 M. Neeb, A. Kivimaki, B. Kempgens, H.M. Köppe and A.M. Bradshaw, J. Phys. B 30 (1997) 93. (CF_4 - C1s)

NK&00 M. Neeb, A. Kivimaki, B. Kempgens, H.M. Köppe, K. Maier, A.M. Bradshaw and N. Kosugi, Chem. Phys. Lett. 320 (2000) 217. (N_2 – N1s)

NL99 A.P.P. Natalense and R.R. Lucchese, J. Chem. Phys. 111 (1999) 5345. (SF_6 – S1s)

NM92 L. Nahon and P. Morin, Phys. Rev. A 45 (1992) 2887 (I4d,Br3d)

NM96 I. Nenner and P. Morin, "Electronic and Nuclear Relaxation of Core Excited Molecules" in VUV and Soft X-ray Photoionization, U. Becker and D.A. Shirley, eds. (Plenum, NY, 1996) 291-355 (366 refs). (HBr-Br3d; $Br(CH_2)_nCl$, n=1,2,3 - Br3d, Cl2p; Cl_2-Cl1s; N_2, N_2O - N1s; CO, N_2O, O_2 -O1s; H_2S, SF_6, SF_5Cl -S1s; $Fe(CO)_2(NO)_2$, CO-C1s)

NMC92 L. Nahon, P. Morin and F.Combet-Farnoux, Phys. Scripta T41 (1992) 104 (Br3d, I4d)

NMA90 H. Nakamatsu, T. Mukoyama and H. Adachi, Chem. Phys. 143 (1990) 221. (SF_6 - S2p, F1s, S1s)

NMA91 H. Nakamatsu, T. Mukoyama and H. Adachi, J. Chem. Phys. 95 (1991) 3167. (SF_6 - S2p, F1s, S1s; H_2S -S1s, S2p)

NMK97 S.I. Nagaoka, K. Mase and I. Koyano, Trends in Chem. Phys. 6 (1997) 1. ($F_3Si(CH_2)_xSiMe_3$, x=1,2, SiF_3Me, $SiMe_4$ - Si2p)

NML88 I. Nenner, P. Morin and P. Lablanquie, Comm. At. Mol. Phys. 22 (1988) 51. (Xe4d, CH_3Br-Br3d)

NM&71 M. Nakamura, Y. Morioka, T. Hayaishi, E. Ishigura and M. Sasanuma, Proc. 3rd Int. VUV Conf. (Tokyo, 1971) 1pA1-6. (CO - C1s,O1s; SF6 - S2p; O_2 -O1s)

NM&80 C.R. Natoli, D.K. Misemer, S. Doniach and F.W. Kutzler, Phys. Rev. A 22 (1980) 1104. (GeH_4, $GeCl_4$ - Ge1s)

NM&87b M.C. Nelson, J. Murakami, S.L. Anderson and D.M. Hanson, J. Chem. Phys. 86 (1987) 442. ($(CH_3)_2CO$ - O1s)

NM&88 I. Nenner, P. Morin, M. Simon, P. Lablanquie and G.G.B. da Souza, Proc. of DIET III, Springer Ser. in Surf. Sci 13 (1988) 10. (M. Knotek, R.H. Stalen, eds) (HBr, CH_3Br - Br3d; SiH_4-Si2p)

NM&90 I. Nenner, P. Morin, P. Lablanquie, M. Simon, N. Levasseur and P. Millie, J. Electron Spectrosc. 52 (1990) 623. (CH_3Br - Br3d; C_2F_4IBr - I4d, Br3d)

NN&97 A.Naves de Brito, A.Naves de Brito, et al., MaxLab report (1997) 146. (H_2S – S2p)

NO99 S. Nagaoka and J. Ohshita, UVSOR Report (1999) 60. ($C_5Cl_3H_9Si_2$ – Si2p)

NO&93 S. Nagaoka, J. Ohshita, M. Ishikawa, T. Masuoka and I. Koyano, J. Phys. Chem. 97 (1993) 1488. (Cl_3Si-SiH_3 - Si2p)

NO&95 S. Nagaoka, J. Ohshita, M. Ishikawa, K. Takaro, U. Nogarhima, T. Takeuchi and I. Koyano, J. Chem. Phys. 102 (1995) 6078. ($C_4F_3H_{11}Si_2$ - Si2p)

NP&82 J. Nordgren, L. Pettersson, L. Selander, C. Nordling, K. Siegbahn and H. Agren, J. Phys. B 15 (1982) L153. (CO_2 - C1s)

NR&93 M. Neeb, J.E. Rubensson, M. Biermann and W. Eberhardt, Phys. Rev. Lett. 71 (1993) 3091. (O_2 - O1s)

NR&94 M. Neeb, J.E. Rubensson, M. Biermann and W. Eberhardt, J. El. Spec. 67 (1994) 261. (CO - C1s; N_2 - N1s; O_2 - O1s)

NR&99 C. Nowak, C. Rienecker, A. Kolmakov, J.O. Löfken, F. Picucci, M. Riedler, A.V. Soldatov, M. Wolff and T. Möller, J. El. Spec. 101-103 (1999) 199. ($(NaCl)_n$ – Cl2p)

NSK87 S. Nagaoka, S. Suzuki and I.Koyano, Phys. Rev. Lett. 58 (1987) 1524 ($Pb(CH_3)_4$ - Pb5d)

NSK88 S. Nagaoka, S. Suzuki and I.Koyano, Nucl. Inst. Meth. A 266 (1988) 699 ($M(CH_3)_4$ - M = Ge3d, Sn4d, Pb5d)

NSM91 L. Nahon, A. Svennson and P. Morin, Phys. Rev. A 43 (1991) 2328. (I4d)

NSZ82 K. Nuroh, M.J. Stott and E. Zaremba, Phys. Rev. Lett. 49 (1982) 863. (Ba4d)

NS&68 M. Nakamura, M. Sasanuma, S. Sato, M. Watanabe, H. Yamashita, Y.Iguchi, A. Ejiri, S. Nakai, S. Yamaguchi, T. Sagawa, Y. Nakai and T. Oshio, Phys. Rev. Lett. 21 (1968) 1303. (Ar2p)

NS&69 M. Nakamura, M. Sasanuma, S. Sato, M. Watanabe, H. Yamashita, Y.Iguchi, A. Ejiri, S. Nakai, S. Yamaguchi, T. Sagawa, Y. Nakai and T. Oshio, Phys. Rev. 178 (1969) 80. (N_2 -N1s)

NS&89 S. Nagaoka, S. Suzuki, U. Nagashima, T. Imamura and I.Koyano, Rev. Sci. Inst. 60 (1989) 2201 ($Ga(CH_3)_3$ - Ga3d)

NS&90 S. Nagaoka, S. Suzuki, U. Nagashima, T. Imamura and I.Koyano, J. Phys. Chem. 94 (1990) 2283 ($Ga(CH_3)_3$ - Ga3d, $BiMe_3$ - Bi5d, $ZnMe_2$ - Zn4d, $M(CH_3)_4$ - M = Ge3d, Sn4d, Pb5d)

NS&92 A. Naves de Brito, S. Svensson, N. Correia, M.P. Keane and H. Agren, J.Electron Spectrosc 59 (1992) 293. (C_4H_6, C_6H_8 - C1s)

NS&97 A. Naves de Brito, S. Svensson, S.J. Osborne, A. Ausmees, A. Kivimaki, O.-P. Sairanen, E. Nommiste, H. Aksela, S. Aksela and L.J. Saethre, J. Chem. Phys. 106 (1997) 18. (H_2S - S2p)

NTH99 J.J. Neville, T. Tyliszczak and A.P. Hitchcock, J. Electron Spectrosc. 101-103 (1999) 119. (COS - S1s)

NT&99a J.J. Neville, T. Tyliszczak, A.P. Hitchcock, A. Jurgensen and R.G. Cavell,Chem. Phys. Lett. 300 (1999) 451. (SPF_3 - P1s)

NT&99b J.J. Neville, T. Tyliszczak, A.P. Hitchcock, A. Jurgensen and R.G. Cavell, unpublished. (PF_3, OPF_3, SPF_3 - P1s, S1s)

NW&86 T. Nagata, J.B. West, T.Hayaishi, Y. Itikawa, Y.Itoh, T. Koizumi, J.Murakami, Y. Sato, H.Shibata, A.Yagashita and M.Yoshino, J.Phys. B 19 (1986) 1281 (Sr4p)

NY&90 T. Nagata, M. Yoshino, T. Hayaishi, Y. Itikawa, Y. Itoh, T. Koizumi, T. Matsuo, Y. Sato, E. Shigemasa, Y. Takizawa and A. Yagashita, Phys. Scripta 41 (1990) 47. (Xe,Cs,Ba,Eu,Yb - 4d)

NY&02 K. Nagaya, M. Yao, T. Hayakawa, Y. Ohmasa, Y. Kajihara, M. Ishii, and Y. Katayama Phys. Rev. Lett. 89 (2002) 243401. (Se_n, n=2-7 – Se1s)

O96 H. Oyanagi, "X-ray Absorption Fine Structure" in Appl. of Synchrotron Radiation to Materials Analysis, (H. Saisho and Y. Goshi, eds) 207. (Br_2 - Br1s)

OA&95 S.J. Osborne, A. Ausmee, S. Svensson, A. Kivimachi, O.-P. Sairanen, A. Naves de Brito, H. Aksela and S. Aksela, J. Chem. Phys. 102 (1995) 7317. (CO - C1s)

OBI95 T.N. Onley, C.E. Brion and T. Ibuki, Chem. Phys. 201 (1995) 505. (BrCN, C1s, N1s, Br3d)

OCB98 T.N. Onley, G. Cooper and C.E. Brion, Chem. Phys. 232 (998) 211. (CH_3I - I4d, 4p, 4s; C1s)

OCT91 E.M.L. Ohrendorf, L.S. Cederbaum and F. Tarantelli, Phys. Rev. A 44 (1991) 205. (SiH_4, SiF_4 - Si1s, Si2p)

OC&97a T.N. Olney, G. Cooper, W.F. Chan, G.R. Burton, C.E. Brion and K.H. Tan, Chem. Phys. 218 (1997) 127. (CH_3Br - Br3d, C1s)

OC&97b T.N. Olney, N.M. Cann, G. Cooper and C.E. Brion, Chem. Phys. 223 (1997) 59. (SiH_4, SiF_4 - Si2p; Cl_2 - Cl2p)

OD93 M. Ohno and P. Decleva, J. Chem. Phys. 99 (1993) 8070. (CO, NiCO - C1s, O1s)

ODF93 M. Ohno, P. DeCleva and G. Fronzoni, Surf. Sci. 284 (1993) 372. (N_2 - N1s)

OEK90 K. Okuyama, J.H.D. Eland and K. Kimura, Phys. Rev. A 41 (1990) 4930. (Xe4d)

OH&02 B. Obst, J. E. Hansen, B. Sonntag, Ph. Wernet, and P. Zimmermann, Phys. Rev. A 65 (2002) 062716. (Ca2p)

OM&96 H. Oji, R. Mitsumoto, E. Ito, H. Ishii, Y. Ouchi, K. Seki and N. Kosugi, J. Electron Spectrosc. 78 (1996) 383. ($C_{18}H_{12}$, $C_{20}H_{14}$, $C_{24}H_{12}$ - C1s)

OM&98 H. Oji, R. Mitsumoto, E. Ito, H. Ishii, Y. Ouchi, K. Seki, T. Yokoyama, T. Ohta and N. Kosugi, J. Chem. Phys.109 (1998) 10409. (C_6H_6, $C_{18}H_{12}$, $C_{20}H_{14}$, $C_{24}H_{12}$ - C1s)

OR&01 B. Obst, T. Richter, M. Martins and P. Zimmermann, J. Phys. B 34(2001) L657. (Sc2p)

OS&90 T. Ohta, K. Seki, T. Yokoyama, I. Morisada and K. Edamatsu, Phys. Scripta 41 (1990) 150. (C_6F_{12} - C1s)

OS&98 S.J. Osborne, S. Sundin, A. Ausmes, S.L. Sorensen, A. Kikas and S. Svensson, J. El. Spec. 95 (1998) 25. (CO – C1s)

OS&02 G Öhrwall, M M Sant'Anna, W C Stolte, I Dominguez-Lopez, L T N Dang, A S Schlachter and D W Lindle, J. Phys. B 35(2002) 4553. (CO_2 – C1s, O1s)

P34 J.A. Prins, Physica 1 (1934) 1174. (Ar2p; CCl_4 - Cl2p)

P39 L.G. Parratt, Phys. Rev. 56 (1939) 295. (Ar1s)

P99 A.A. Pavylchev, J. Phys. B 32 (1999) 2077. (CO – C1s)

PA&96 L.G.M. Pettersson, H. Agren, O. Vahtras and V. Carravetta, Surf. Sci. 365 (1996) 581. (CO, $Cu_{17}CO$, $Cu_{50}CO$ – C1s, O1s)

PB90 A.A. Pavlychev and A. Barry, Phys. Scripta 41 (1990) 157. (Ar2p)

PBV91 A.A. Pavlychev, A. Barry and A.S. Vinogradov, Phys. Scripta 44 (1991) 399 (N_2O - O1s)

PB&78 H. Petersen, A. Bianconi, F.C. Brown and R.Z. Bachrach, Chem. Phys. Lett. 58 (1978) 263. (N_2 - N1s)

PB&99 E. Pahl, J. Brand, L.S. Cederbaum and F. Tarantelli, Phys. Rev. A 60 (1999) 1079. (HF - F1s)

PB&85 R.C.C. Perera, J. Barth, R.E. LaVilla, R.D. Deslattes and A. Henins, Phys. Rev. A 32 (1985) 1489. (CH_3Cl - Cl1s)

PC83 M. Pantelouris and J.P. Connerade, J. Phys. B 16 (1983) L23. (U5d)

PCK87 C. Pan, S.L. Carter and H.P. Kelly, J. Phys. B 20 (1987) L335. (Eu4d)

PCK91 C. Pan, S.L. Carter and H.P. Kelly, Phys. Rev. A 43 (1991) 1290. (Eu4d)

PCT99 E. Pahl, L.S. Cederbaum and F. Tarantelli, Phys. Rev. A 60 (1999) 1070. (HF – F1s)

PC&78 N. Padial, G. Csanak, B.V. McKoy and P.W. Langhoff, J. Chem. Phys. 69 (1978) 2992. (CO-C1s, O1s)

PC&81a N. Padial, G. Csanak, B.V. McKoy and P.W. Langhoff, Phys. Rev. A 23 (1981) 218. (CO_2-C1s, O1s)

PC&81b N. Padial, G. Csanak, B.V. McKoy and P.W. Langhoff, J. Chem. Phys. 74 (1981) 4581. (O_3 - O1s)

PC&87 R.C.C. Perera, P.L. Cowan, D.W. Lindle and R.E. LaVilla, J. Phys. 48 (1987) C9-753. (CF_3Cl - Cl1s)

PC&91 R.C. Perera, P.L. Cowan, D.W. Lindle, R.E. LaVilla, T.E. Jach and R.D. Deslattes, Phys. Rev. Lett. 43 (1991) 3609. ($CF_{2x}Cl_{4-x}$, x=1-3 - Cl1s)

PC&98 O. Plashkevych, V. Carravetta, O. Vahtras and H. Agren, Chem. Phys. 232 (1998) 49. ($C_2H_5O_2N$, $C_3H_7O_2N$, $C_3H_7O_3N$, $C_3H_7O_2NS$, $C_5H_{11}O_2N$ - C1s, N1s, O1s)

PDK97 R. Püttner, M. Domke and G. Kaindl, Acta Phys. Polonica A 291 (1997) 865. (SiX_4, X=H,D,F,Cl, Br - Si2p)

PDK98 R. Püttner, M. Domke and G. Kaindl, Phys. Rev. A 57 (1998) 297. (SiX_4, X=H,D,F,Cl,Br,Me - Si2p)

PD&95 R. Püttner, M. Domke, K. Schulz, A. Gutiérrez and G. Kaindl, J. Phys. B 28 (1995) 2425. (HBr - Br3d)

PD&96 R. Püttner, M. Domcke, K. Shulz and G. Kaindl, Chem. Phys. Lett. 250 (1996) 145. (SiF_4 - Si2p)

PD&97 R. Püttner, M. Domke, D. Lentz and G. Kaindl, Phys. Rev. A 56 (1997) 1228. (SiH_4, SiD_4 - Si2p)

PD&99 R. Püttner, J. Domingue, T.J. Morgan, C. Cisneros, R.F. Fink, E. Rotenberg, T. Warwick, M. Domke, G. Kaindl and A.S. Schlachter, Phys. Rev. A 59 (1999) 3415. (CO, NO – O1s)

PF&89 M.N. Piancastelli, T.A. Ferrett, D.W. Lindle, L.J. Medhurst, P.A. Heiman, S.H. Liu and D.A. Shirley, J. Chem. Phys. 90 (1989) 3004. (C_2H_4,C_6H_6-C1s)

PF&94 A.W. Potts, H.F. Fhadil, J.M. Benson, I.H. Hillier, A.A. McDowell and S. Jones, J. Phys. B 27 (1994) 473. (CH_xCl_{4-x}, x=0-3; CF_3Cl, CF_2Cl_2, $CFCl_3$ - Cl 1s)

PF&98 A.A. Pavlychev, N.G. Faminykh, N. Watanabe, K. Soejima, E. Shigemasa and A. Yagashita, Phys. Rev. Lett. 81 (1998) 3623. (N_2 – N1s; CO_2 – O1s)

PF&00 M.N.Piancastelli, R.F. Fink, R. Feifel, N. Boesch, S.L. Sorensen, C. Miron, H. Wang, I. Hjielte, O Bjorneholm, A. Ausmees, S. Svensson, P. Salek, F. Kh. Gel'mukhanov and H. Agren, J. Phys. B 33 (2000) 1819. (N_2 – N1s)

PH&95 A.A. Pavlychev, K.H. Hallmeier, C. Hennig, L. Hennig and R. Szargan, Chem. Phys. 201 (1995) 547. (C_4H_5N - N1s)

PH&99 M.N.Piancastelli, A. Hempelmann, F. Heiser, O. Gessner, A. Rudel and U. Becker, Phys. Rev. A 59 (1999) 3000. (H_2O – O1s)

PH&02 R. Püttner, Y.-F. Hu, E. Nõmmiste, G. M. Bancroft, S. Aksela, Phys. Rev. A 65 (2002) 032513. (HBr – Br 3d)

PK89 C. Pan and H.P. Kelly, Phys. Rev. A 39 (1989) 6232. (Ar2p)

PK&89 E.D. Poliakoff, L.A. Kelly, L.M. Duffy, B. Space, P. Roy, S.H. Southworth and M.G. White, Chem. Phys. 129 (1989) 65. (N_2-N1s)

PK&93 N. Pargher, H.M. Köppe, J. Feldhaus and J. Haase, Phys. Rev. Lett. 71 (1993) 4385. (SO_2 - O1s)

PK&97 M.N.Piancastelli, A.Kivimaki, B. Kempgens, M. Neeb, K. Maier and A.M. Bradshaw, Chem. Phys. Lett. 274 (1997) 13. (CO_2 – O1s)

PK&99a M.N.Piancastelli, A.Kivimaki, B. Kempgens, K. Maier, A. Rudel, U. Hergenhahn and A.M. Bradshaw, J. Phys. B 32 (1999) 2523. (N_2 – N1s)

PK&99b M.N.Piancastelli, A.Kivimaki, B. Kempgens, K. Maier, U. Hergenhahn, A. Rudel and A.M. Bradshaw, J. El. Spec. 98 (1999) 111. (N_2 – N1s)

PK&99c M.N.Piancastelli, B. Kempgens, U. Hergenhahn, A.Kivimaki, K. Maier, A. Rudel and A.M. Bradshaw, Phys. Rev. A 59 (1999) 1336. (H_2O – O1s)

PK&01 J.P. Gomilsek, A. Kodre, I. Arcon, and R. Preseren, Phys. Rev. A 64 (2002) 022508. (K1s)

PK&02 M.N. Piancastelli, A. Kivimäki, V. Carravetta, I. Cacelli, R. Cimiraglia, C. Angeli, H. Wang, M. Coreno, M. de Simone, G. Turri, and K. C. Prince, Phys. Rev. Lett. 88 (2002) 243002. (O_2 – O1s)

PL84 R.C.C. Perera & R.E. LaVilla, J. Chem. Phys. 81 (1984) 3375. (CS_2,COS -S1s)

PL86 R.C.C. Perera & R.E. LaVilla, J. Chem. Phys. 84 (1986) 4228. (C_4H_4S - S1s)

PL&87 M.N. Piancastelli, D.W. Lindle, T.A. Ferrett and D.A. Shirley, J. Chem. Phys. 86 (1987) 2765; reply to rebuttal, J. Chem. Phys. 87 (1987) 3255. (CO_2 – C1s, O1s; N_2O – N1s,O1s)

PMT81 M. Pettini, M. Mazzoni and U.P. Tozzi, Phys. Lett. A 82 (1981) 168. (I4d)

PM&93 S.C. Page, L. Mei, D. Palfreyman and F.H. Read, Rev. Sci. Inst. 64 (1993) 2574. (Xe4d)

PN93 M.J. Puska and R.M. Nieminen, Phys. Rev. A 47 (1993) 1181 (erratum 49 (1994) 629). (Xe, Xe:C_{60}-Xe4d; Ba, Ba:C_{60}-Ba4d)

PN&97 M.N. Piancastelli, M. Neeb, A. Kivimaki, B. Kempgens, H.M. Köppe, K. Maier, A.M. Bradshaw and R.F. Fink, J. Phys. B 30 (1997) 5677. (CO - C1s,O1s)

PR00 A.A. Pavlychev and E. Rühl, J. El. Spec. 106 (2000) 207. (N_2 – N1s; CO – Cs, O1s)

PRW74 H. Petersen, K. Radler and H.W. Wolff, Proc. 4th Int. Vac. UV Rad. Phys. Conf. (Hamburg, 1974) 247.

(Ba4d)

PR&75 H. Petersen, K. Radler, B. Sonntag and R. Haensel, J. Phys. B 8 (1975) 31. (Cs4d, Cs4p)

PR&86 Th. Prescher, M. Richter, E. Schmidt, B. Sonntag and H.E. Wetzel, J. Phys. B 19 (1986) 1645. (Cs4d,Sm4d)

PS&02 M.N. Piancastelli, W.C. Stolte, G. Ohrwall, S.W. Yu, D.Bull, K. Lantz, A.S. Schlachter and D.W. Lindle, J. Chem. Phys.117 (2002) 8264. (C_2H_2, C_2H_4 – C1s)

PT&95 M. Perez-Jigato, V. Termath, P. Gardner, N.C. Handy, D.A. King, S. Rassiano and M. Surman, Mol. Phys. 85 (1995) 619. ($(NO)_2$ - N1s, O1s)

PV87 A.A. Pavlychev and A.S. Vinogradov, Opt. Spectrosc. (USSR) 62 (1987) 197; [Opt. Spekt. 62 (1987) 329] (N,N_2- N1s)

PV90 A.A. Pavlychev and A.S. Vinogradov, unpublished (TeF_6 - Te4d)

PVK80 A.A. Pavlychev, A.S. Vinogradov and T.M. Zimkina, Proc. 6th Int. Conf. on Vac. UV Rad. Phys. II-95 (Charlottesville, 1980) (SiH_4, SiF_4 - Si2p)

PVZ82 A.A. Pavlychev, A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. 52 (1982) 139. [Opt. Spekt. 52 (1982) 231] (Si,SiH_4,SiF_4-Si2p)

PV&79 A.A. Pavlychev, A.S. Vinogradov, T.M. Zimkina, D.E. Onopko and S.A. Titov, Opt. Spect. 47 (1979) 40 [Opt. Spekt. 47 (1979) 73]. (SiX_4 - X=F,Cl,Br - Si2p; GeF_4, $GeCl_4$ - Ge2p)

PV&80 A.A. Pavlychev, A.S. Vinogradov, T.M. Zimkina, D.E. Onopko and R. Stsargan, Opt. Spect. 48 (1980) 109 [Opt. Spekt. 48 (1980) 192]. (SiH_4 - Si2p)

PV&82 A.A. Pavlychev, A.S. Vinogradov, T.M. Zimkina, D.E. Onopko and S.A. Titov, Opt. Spect. 52 (1982) 302 [Opt. Spekt. 52 (1982) 506] (SiF_4-Si2p, F1s)

PV&85 A.A. Pavlychev, A.S. Vinogradov, I.V. Kondratenko and T.M. Zimkina, Sov. Phys. Sol. St. 27 (1985) 123; [Fiz.Tverd.Tela (Leningrad) 27 (1985) 209] (CF_4-C1s; AF_x-A1s)

PV&86 A.A. Pavlychev, A.S. Vinogradov, I.V. Kondratenko and I.V. Kondzatieva, Proc. III Conf. Autoionisation Phenomena in Atoms, Moscow St. Univ. 1986, 80. (TeF_6 - Te4d)

PV&90 A.A. Pavlychev, A.S. Vinogradov, V.N. Akimov and S.V. Nekipelov, Physica Scripta 41 (1990) 160. (N_2, NH_3, NO - N1s; NO -O1s; BF_3 -B1s)

PV&93 A.A. Pavlychev, A.S. Vinogradov, A.P. Stepanov and S.V. Nekipelov, Opt. Spectrosc. 75 (1993) 327. [Opt. Spek. 75 (1993) 554.] (CH_3NO_2, NO, CF_3NO, N_2O - O1s)

PV&97 O. Plashkevych, L. Yang, O. Vahtras, H. Agren and L.G.M. Pettersson, Chem. Phys. 222 (1997) 127. ($C_6H_xF_{6-x}$ x=1-6 C1s, F1s; C_6H_7N - C1s,N1s; C_6H_6O - C1s, O1s)

QL89 C.A. Quarles and H.E. Lehithet, Phys. Rev. A 40 (1989) 455. (SF_6 - S1s)

QO&95 C. Quaresima, C. Ottaviani et. al, Nucl. Inst. Meth. A 364 (1995) 374. (Ar2p, Ne1s, N_2 - N1s, O_2 - O1s)

R74 K. Radler, Diss. (U. Hamburg) DESY report F41-74/9. (CsI - Cs4p)

R75 M.B. Robin, Chem. Phys. Lett. 31 (1975) 140. (CH_4 - C1s; B_2H_6,BF_3 - B1s; N_2 - N1s; HCl - Cl2p; H_2S - S2p; PH_3 - P2p; SiH_4,SiF_4 - Si2p; SiF_4 - F1s; review)

R77 E. Radtke, Proc. 5th Int. Vac. UV Rad. Phys. Conf. (Montpellier, 1977) I-23. (La4d, Sm4d)

R78 F.H. Read, J. de Phys. C1-S5 (1978) 82. (N_2, Ar, CH_4 - review)

R79 E.R. Radtke, J. Phys. B 12 (1979) L71. (La4d)

R83 D.E. Ramaker, Chem. Phys. 80 (1983) 183. (H_2O-O1s)

R85 M.B. Robin, *Higher Excited States of Polyatomic Molecules* (Vol. 3, Academic, Florida, 1985) (review).

R86 R.A. Rosenberg, J. Vac. Sci. Tech. A 4 (1986) 1463. (SiF_4 - Si2p)

R90 B.F. Rozsinyai, Phys. Rev. A 42 (1990) 286. (Ba4d, Xe4d, Kr3d)

R92 E. Rühl, Ber. Bunsenges. Phys. Chem. 96 (1992) 1172. ($(N_2)_n$, $(N_2O)_n$ - N1s)

R95 M. Richter, J. Electron Spectrosc. 76 (1995) 21. (Ba4d, Na2p, Eu4d)

RAZ93 J.J. Rehr, R.C. Alber and S.I. Zabinsky, Phys. Rev. Lett 69 (1993) 3397. (N_2-N1s, O_2-O1s)

RA&92 H. Rabus, D. Arvanitis, M. Domke and K. Baberschke, J. Chem. Phys. 96 (1992) 1560. (C_2H_2, C_2H_4 - C1s)

RB99 A.B. Rocha and C.E. Bielschowsky, Chem. Phys. 243 (1999) 9. (H_2O – O1s)

RB00 A.B. Rocha and C.E. Bielschowsky, J. Chem. Phys. 113 (2000) 7971. (C_2H_4 – C1s)

RB02 A.B. Rocha and C.E. Bielschowsky, Phys. Rev. A 66 (2002) 052720. (CO_2 – C1s)

RB&92 C. Reynaud, S. Bodeur, J.L. Marechal, D.Bazin, P. Millie, I. Nenner, U. Rockland and H. Baumgartel, Chem. Phys. 166 (1992) 411. (SF_5Cl, SF_6 - S1s)

RC&90 G. Rocker, D. Coulman, P. Feulner, B. Scheurer, Z. Lin and D. Menzel, DIET IV, Springer Ser. Surf. Sci 19 (1990) 261. (CH_4 - C1s; NH_3 - N1s; H_2O - O1s)

RC&01 M. Riedler, A.R.B. de Castro, A. Kolmakov, J.O. Löfken, C. Nowak, A.V. Soldatov, A. Wark, G. Yalovega, and T. Möller, J. Chem. Phys. 115 (2001) 1319. ($(NaCl)_n$ Na1s)

RDK93 G. Remmers, M. Domke and G. Kaindl, Phys. Rev. A 47 (1993) 3085. (CH_4, CD_4, C_2H_6, C_2D_6, C_3H_8, C_3D_8 - C1s)

RD&92 G. Remmers, M. Domke, A. Puschmann, T. Mandel, C. Xue, G. Kaindl, E. Hudson and D.A. Shirley, Phys. Rev. A 46 (1992) 3935 (H_2CO - C1s, O1s)

RD&93 G. Remmers, M. Domke, A. Puschmann, T. Mandel, G. Kaindl, E. Hudson and D.A. Shirley, Chem. Phys. Lett. 214 (1993) 241 (NO - N1s. O1s)

RE&92 K.J. Randall, W. Eberhardt, J. Feldhaus, W. Erlebach, A.M. Bradshaw, Z. Xu, P.D. Johnson and Y. Ma, Nucl. Inst. Meth. A 319 (1992) 101. (O_2 - O1s)

RF68 A.P. Rau and U. Fano, Phys. Rev. 167 (1968) 7. (Kr3d)

RF91 R.A. Rosenberg and S.P. Frigo, Chem. Phys. Lett. 184 (1991) 439. ($SiCl_4$ - Si2p)

RF&92 K.J. Randall, J. Feldhaus, W. Erlebach, A.M. Bradshaw, W. Eberhardt, Z. Xu, Y.Ma and P.D. Johnson, Rev. Sci. Inst. 63 (1992) 1367 (CO-C1s; N_2-N1s; O_2-O1s)

RG&96a C. Reynaud, M.A. Gaveau, P. Millie, S. Bodeur, P. Archirel, B. Levy and I. Nenner, J. Electron Spectrosc. 79 (1996) 357. (H_2S, SO_2, SF_6 - S1s)

RG&96b C. Reynaud, M.A. Gaveau, K. Bisson, P. Millie, I. Nenner, S. Bodeur, P. Archirel and B. Levy, J. Phys. B 29 (1996) 5403. (H_2S, SO_2, SF_6 - S1s)

RH89a E. Rühl and A.P. Hitchcock, J. Am. Chem. Soc. 111 (1989) 2614. ($Mn(CO)_5Br$, $Mn(CO)_5H$, $Mn_2(CO)_{10}$ - C1s, O1s, Mn2p, Mn3p)

RH89b E. Rühl and A.P. Hitchcock, J. Am. Chem. Soc. 111 (1989) 5069. ($M(Cp)_2$, M=Fe, Cr, Ni; - C1s)

RH91 E. Rühl and A.P. Hitchcock, Chem .Phys. 154 (1991) 323. H_2O_2, H_2O, CF_3OOCF_3, $(t\text{-}Bu)_2O_2$ - O1s)

RH&93a E. Rühl, C. Heinzel, A.P. Hitchcock and H. Baumgartel, J. Chem. Phys. 98 (1993) 2653. (Ar, Ar_n- Ar2p)

RH&93b E. Rühl, C. Heinzel, H. Baumgartel and A.P. Hitchcock, Chem. Phys. 169 (1993) 243. ($FeCp_2$, $NiCp_2$ - C1s, Fe2p, Ni2p)

RH&93c E. Rühl, C. Heinzel, A.P. Hitchcock, H. Schmeltz, C. Reynaud, H. Baumgartel, W. Drube and R. Frahm, J. Chem. Phys. 98 (1993) 6820. (Ar, Ar_n- Ar1s)

RH&93d E. Rühl, C. Heinzel, H. Baumgartel, W. Drube and A.P. Hitchcock, Jap. J. Appl. Phys. 32 (Supp.2) (1993) 791. (Ar,Ar_n - Ar2p, Ar1s)

RH&93e E. Rühl, C. Heinzel, A.P. Hitchcock and H. Baumgartel, Proc. VUV-10 (1993). ($(C_6H_6)_n$ - C1s, $(N_2O)_n$ - N1s; Ar_n - Ar2p)

RH&94 T. Reich, P.A. Heimann, B.L. Petersen, E. Hudson, Z. Hussain and D.A. Shirley, Phys. Rev. A 49 (1994) 4570. (CO - C1s, O1s)

RH&95 E. Rühl, A.P. Hitchcock, P. Morin and M. Lavollée, J. Chim. Phys. 92 (1995) 521. (Ar_n - Ar2p)

RH&97 E.G. Rightor, A.P. Hitchcock, H. Ade, R.D. Leapman, S.G. Urquhart, A.P. Smith, G. Mitchell, D. Fischer, H.J. Shin and T. Warwick, J. Phys. Chem. 101 (1997) 1950. ($C_{10}H_{10}O_4$ - C1s, O1s)

RH&02 E.E. Rennie, U. Hergenhahn, O. Kugeler, A. Rüdel, S. Marburger, and A.M. Bradshaw, J. Chem. Phys. 117 (2002) 6524. (C_4H_4O – C1s)

RI&88 M.B. Robin, I. Ishii, R. McLaren and A.P. Hitchcock, J. Electron Spectrosc. 47 (1988) 53. ($C_2H_xF_{4-x}$, c-C_5F_8, $H_xF_{2-x}CO$, $CF_2CFCFCF_2$, CH_3CCCH_3, CF_3CCCF_3, CH_3COOH, C_3H_6O, CF_3COOH, $C_{10}H_8$, $C_{10}F_8$, $(CF_3)_2CO$ - C1s, O1s, F1s)

RJ96 E. Rühl and H.W. Jochims, Z. Phys. Chem Bd 195 (1996) 137. (CO_2 - C1s; N_2O - N1s)

RJ&91 E. Rühl, H.W. Jochims, C. Schmale, E. Biller, A.P. Hitchcock and H. Baumgartel, Chem. Phys. Lett. 178 (1991) 558. (Ar2p)

RK&93 K.J. Randall, A.L.D. Kilcoyne, H.M. Koppa, J. Feldhaus, A.M. Bradshaw, J.E. Rubensson, W. Eberhardt, Z. Xu, P.D. Johnson and Y. Ma, Phys. Rev. Lett. 71 (1993) 1156. (CO - C1s)

RK&96 E. Rühl, A. Knop, A.P. Hitchcock, P.A. Dowben and D.N. McIlroy, Surface Reviews and Letters 3 (1996) 557. (Ar_n - Ar2p)

RK&99 E.E. Rennie, H.M.Koppe, B. Kempgens, U.Hergenhahn, A. Kivimaki, K. Maier, M. Neeb, A. Rudel and A.M. Bradshaw, J.Phys. B 32 (1999) 2691. (C_2H_6 – C1s)

RK&00a E.E. Rennie, B. Kempgens, H.M.Koppe, U.Hergenhahn, J. Feldhaus, B.S. Itchikawitz, A.L.D. Kilcoyne, A. Kivimaki, K. Maier, M.N Piancastelli, M.Polcik, A. Rudel and A.M. Bradshaw, Phys. Rev. A 113 (2000) 7362. (C_6H_6 – C1s)

RK&00b J. Rius I Riu, E. Kukk, M.Stankiewicz, S. Aksela, J. A. Ruiz, P. Erman, P. Hatherly, M. Huttula, A. Karawajcyk, E. Rachlew and P. Winiarczyk, MaxLab Report (2000) 182. (CD_4 – C1s)

RL77 T.N. Rescigno and P.W. Langhoff, Chem. Phys. Lett. 51 (1977) 65. (N_2-N1s)

RL&83 R.A. Rosenburg, P.R. LaRoe, V. Rehn, J. Stöhr, R. Jaeger and C.C. Parks, Phys. Rev. B 28 (1983) 3026. (H_2O, D_2O(s) - O1s)

RL&85 R.A. Rosenberg, P.J. Love, P.R. LaRoe, V. Rehm and C.C. Parks, Phys. Rev. B 31 (1985) 2634. (CO-C1s; N_2,NO,N_2O - N1s; CO, NO - O1s)

RL&95 J.E. Rubensson, J. Lüning, M. Neeb, M. Biermann, B. Küpper and W. Eberhardt, J. Electron Spectrosc. 75 (1995) 47. (N_2 - N1s, O_2 - O1s)

RL&96 J.E. Rubensson, J. Lüning, M. Neeb, B. Küpper, S. Eisebitt and W. Eberhardt, Phys. Rev. Lett. 76 (1996) 3919. (N_2 - N1s)

RL&97 J.E. Rubensson, J. Lüning, S. Eisebitt and W. Eberhardt, Appl. Phys. A 65 (1997) 91. (Ne1s)

RM79 R.F. Reilman and S.T. Manson, Astrophysical J. Suppl. Ser. 40 (1979) 815. (PA X-sections for Z<31 from 5-5,000 eV)

RM&89a M. Richter, M. Meyer, M. Pahler, T. Prescher, E. von Raven, B. Sonntag and H.E. Wetzel, Phys. Rev. A 39 (1989) 5666. (Ba4d, La4d, Ce4d)

RM&89b M. Richter, M. Meyer, M. Pahler, T. Prescher, E. von Raven, B. Sonntag and H.E. Wetzel, Phys. Rev. A 40 (1989) 7007. (Ba to Tb 4d)

RN&93 J.E. Rubensson, M. Neeb, M. Biermann, Z. Xu and W. Eberhardt, J. Chem. Phys. 99 (1993) 1633. (N_2- N1s)

RN&96 J.E. Rubensson, M. Neeb, A. Bringer, M. Biermann and W. Eberhardt, Chem. Phys. Lett. 257 (1996) 447. (Ne1s)

RO79 T.N. Rescigno and A.E. Orel, J. Chem. Phys. 70 (1979) 3390. (N_2-N1s).

RO85 T.N. Rescigno and A.E. Orel, Lect. Notes in Chem. 35 (1985) 215. (N_2,NO,N_2O-N1s)

RO&03 T. Richter, B. Obst, M. Martins and P. Zimmermann, J.Phys. B 36 (2003) 155. (Sc2p)

RRM84 F.A. Rajgara, A. Roy and D. Mathur, Indian J. Phys. B 57 (1983) 32. (N_2-N1s)

RRW74 P. Rabe, K. Radler and H.W. Wolff, Proc. 4th Int. Vac. UV Rad. Phys. Conf. (Hamburg, 1974) 169. (Ba4d)

RR&83 R.A. Rosenberg, V. Rehn, A.K. Green, P.R. LaRoe and C.C. Parks, Desorption Induced by Electronic Transitions I (1983). (N_2,NH_3-N1s, D_2O-O1s)

RS74 K. Radler and B. Sonntag, Proc. VUV-4 (Hamburg, 1974) 104. (LiCl - Li1s)

RS76 K. Radler and B. Sonntag, Chem. Phys. Lett. 39 (1976) 371. (CsCl - Cs4d)

RSH93 M.L.M. Rocco, G.G.B. de Souza and A.P. Hitchcock, unpublished. ($C_{32}H_{16}N_8$, $C_{32}H_{16}N_8Fe$, $C_{32}H_{16}N_8Ni$, $C_{32}H_{16}N_8Zn$ - C1s; $C_{32}H_{16}N_8Ni$ - N1s)

RSW76 K. Radler, B. Sonntag and H.W. Wolff, Proc. Int. Conf. on X-ray Spectra (Washington, 1976) 54. (NaCl - Na2p)

RS&76 K. Radler, B. Sonntag, T.C. Chang and W.H.E. Schwarz, Chem. Phys. 13 (1976) 365. (LiF, LiCl - Li1s)

RS&86 A. Reimer, J. Schirmer, J. Feldhaus, A.M. Bradshaw, U. Becker, H.G. Kerkoff, B. Langer, D. Szostak and R. Wehlitz, Phys. Rev. Lett. 57 (1986) 1707 (CO-C1s).

RS&89 M. Rosi, A. Sgamellotti, F. Tarantelli, M.M. Gofman, V.A. Andreev and V.I. Nefedov, J. Struct. Chem. 30 (1989) 147 [Zh. Struk. Khimii 30 (1989) 171] (CH_xF_{4-x}, x=0,4 - C1s)

RS&91 E. Rühl, C. Schmale, H.W. Jochims, E. Biller, M. Simon and H. Baumgartel, J. Chem. Phys. 95 (1991) 6544 (Ar, Ar_n - Ar2p)

RS&92a E. Rühl, C. Schmale, H.W. Jochims, E. Biller, R. Locht, A.P. Hitchcock and H. Baumgartel, AIP Conf. Proc. 258 (1992) 230. (Ar_n - Ar2p; $(CO)_n$ - C1s, O1s)

RS&92b E. Rühl, C. Schmale, H. Baumgartel and A.P. Hitchcock, (1992) unpublished ($(C_2H_4)_n$ - C1s; $(O_2)_n$ - O1s)

RUH95 E. Rühl, S.G. Urquhart and A.P. Hitchcock, unpublished. ($C_6H_{12}N_2$ - C1s, N1s)

RWH91 E.Rühl, A.T. Wen and A.P. Hitchcock, J. Electron Spectrosc. 57 (1991) 137. ($CoCp_2$, C_5H_6, C_5H_8, $C_{10}H_{12}$ - C1s; $Co_2(CO)_8$, $CpCo(CO)_2$ - C1s,O1s)

RW&90a R.A. Rosenberg, C.R. Wen, K. Tan and J.M. Chen, J. Chem. Phys. 92 (1990) 5196. (SiF_4 - Si2p)

RW&90b R.A. Rosenberg, C.R. Wen, K. Tan and J.M. Chen, Phys. Scripta 41 (1990) 475. ($SiCl_4$ - Si2p)

RW&90c R.A. Rosenberg, C.R. Wen, K. Tan and J.M. Chen, DIET IV, Spring. Ser. Surf. Sci. 19 (1990) 97. (SiF_4, $SiCl_4$ - Si2p)

RW&95 F. Raski, K.R. Wilson, Z. Jiang, A. Ikhlef, C.Y. Coté and J.C. Keiffer, SPIE Vol. 2523 (1995). (SF_6 - S1s)

RW&96 F. Raski, K.R. Wilson, Z. Jiang, A. Ikhlef, C.Y. Coté and J.C. Keiffer, J. Chem. Phys. 104 (1996) 6066. (SF_6 - S1s)

RY&92 E.G. Rightor, G.P. Young, S.G. Urquhart, A.T. Wen and A.P. Hitchcock, Microscopy: The Key Research Tool 22 (1992) 67. (C_6H_6 - C1s; C_7H_6O, $C_8H_6O_2$, $C_9H_{10}O_2$ - C1s, O1s; $COCl_2$, $C_8H_{14}O_2Cl_2$ - C1s, O1s, Cl2p)

S36 S.T. Stephenson, Phys. Rev. 50 (1936) 790. (Br_2-Br1s)

S40 C.H. Shaw, Phys. Rev. 57 (1940) 877. (HBr, Br_2 - Br1s)

S63 H.W. Schnopper, Phys. Rev. 131 (1963) 2559. (Ar1s)

S66 J.A.R. Samson, Adv. Atom. Mol. Phys. 2 (1966) 178. (review of atomic photoionization cross-sections; Ar2p, Kr3d, Xe4d)

S74 W.H.E. Schwarz, Angew. Chem. Int. Ed. Engl. 13 (1974) 454. (theory, review, data summary to 1973; CO-O1s; HCl-Cl2p; XeF_2-Xe4d)

S75a W.H.E. Schwarz, Chem. Phys. 9 (1975) 157. (HCl, H_2S, PH_3, SiH_4)

S75b W.H.E. Schwarz, Chem. Phys. 11 (1975) 217. (HCl-Cl2p, H_2S-S2p, PH_3-P2p, SiH_4-Si2p, CH_4-C1s, H_2O-O1s, NH_3-N1s)

S76a W.H.E. Schwarz, Chem. Phys. 13 (1976) 153. (HCl-Cl2p, H_2S-S2p, NH_3-N1s, SiH_4-Si2p)

S76b M.E. Schwartz, Chem. Phys. Lett. 40 (1976) 1. (NH_3-N1s)

S80a V. Schmidt, Appl. Optics 19 (1980) 4080. (Xe4d, N_2-N1s)

S80b A.F. Starace, Appl. Optics 19 (1980) 4051. (review, Xe4d)

S82a G. O'Sullivan, J. Phys. B 15 (1982) L327. (CH_3I - I4d)

S82b G. O'Sullivan, J. Phys. B 15 (1982) 2385. (CCl_4,CCl_2F_2-Cl2p)

S85 N. Spector, Optica Pura Y Applicada 18 (1985) 183. (Li1s, Na1s, Al2p)

S86 V. Schmidt, Com. At. Mol. Phys. 17 (1985) 1. (Mn3p,Mn3d)

S87 B. Sonntag, J. Phys. 48 (1987) C9-439. (U5d, Li1s)

S90a H.P. Saha, Phys. Rev. A 42 (1990) 6507. (Ar1s)

S90b N. Saito, Research of the Electrotechnical Laboratory, No. 910 (1990) 88 page review. (N_2 - N1s; NO, O_2 - N1s, O1s)

S91a B.F. Sonntag, Phys. Scripta T 34 (1991) 93. (Ar2p, Li1s)

S91b E. Shigemasa, Photon Factory Ann. Rep. (1991) intro. (SiF_4 - Si2p)

S92 J. Stöhr, *NEXAFS Spectroscopy*, Spr. Ser. Surf. Sci. (Heidelberg, 1992). (Review; N1s, Ar1s, NH_3, N_2H_4 - N1s; O_2, CO, CO_2, H_2CO, CH_3OH - C1s, O1s; H_2O - O1s; HF, F_2 - F1s; CH_4, C_2H_n, n=2,4,6; CH_3NH_2, CH_3CN, CH_3F, C_3H_4, C_3H_6, c-C_3H_8, C_3H_8, C_4H_6,C_4H_8, C_5H_{10}, C_6H_6, C_6H_{12} $C_2H_xF_{4-x}$ - C1s)

Sc92 V. Schmidt, Rep. Prog. Phys. 55 (1992) 1483. (Ar2p, Ar1s, Kr3d, Kr2p, Kr1s, Xe4d, Xe3d, Xe1s - review)

S94 S. Sekine, Bull. Electrotech. Lab. 58 (1994) 21. (CO - C1s, O1s; N_2-N1s)

S95 E. Shigemasa, Nucl. Inst. Meth. B 99 (1995) 132. (N_2 - N1s)

S98 E. Shigemasa, J. Electron Spectrosc. 88-91 (1998) 9. (CO - C1s, N_2 - N1s, CO_2 - O1s)

SA93 S. Svennson and H. Agren, Chem. Phys. Lett. 205 (1993) 387. (SF_6 - F1s)

SA97 S. Svensson and A. Ausmees, App.Phys. 65 (1997) 107. (Kr3d; HCl-Cl2p; H_2S-S2p; CO-C1s)

SAA95 S. Svensson, H. Aksela and S. Aksela, J. Electron Spectrosc. 75 (1995) 67. (CO - C1s)

SAV87 V.N. Sivkov, V.N. Akimov and A.S. Vinogradov, Opt. Spectr. 63 (1987) 162 [Opt. Spekt. 63 (1987) 275]. (CO_2-C1s,O1s; CH_4, CF_4 - C1s)

SA&84 V.N. Sivkov, V.N. Akimov, A.S. Vinogradov and T.M. Zimkina. Opt. Spectr. 57 (1984) 160 [Opt. Spekt. 57 (1984) 265]. (CO_2-C1s,O1s)

SA&86a G. Stefani, L .Avaldi, A. Lahman-Bennani and A. Duguet, J. Phys. B 19 (1986) 3767. (Ar2p)

SA&86b V.N. Sivkov, V.N. Akimov, A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. (USSR) 60 (1986) 194; [Opt. Spekt. 60 (1986) 318] (CH_4-C1s; CF_4 - C1s,F1s)

SA&95a S. Svensson, H. Aksela, A. Kivimaki, O.-P. Sairanen, A. Ausmees, S.J. Osborne, A. Naves de Brito, E. Nömmiste, G. Bray and S. Aksela, J. Phys. B 28 (1995) L325. (H_2S - S2p)

SA&95b O.-P. Sairanen, H. Aksela, S, Aksela, J. Mursu, A. Kivimaki, A. Naves de Brito, E. Nömmiste, S.J. Osborne, A. Ausmees, and S. Svensson, J. Phys. B 28 (1995) 4509. (Xe4d)

SA&95c E. Shigemasa, J. Adachi, M Oura and A. Yagashita, Phys. Rev. Lett. 74 (1995) 359. (N_2 – N1s)

SA&97 S. Sundin, A. Ausmees, S.L. Sorensen, O. Bjorneholm, I. Hjelte and S. Svensson, J. Phys. B 30 (1997) L851. (CO - C1s)

SA&98a E. Shigemasa, J. Adachi, K. Soejima, N. Watanabe, A. Yagashita and N.S. Cherepkov, Phys. Rev. Lett. 80 (1998) 1622. (CO - C1s)

SA&98b S. Sundin, A. Ausmees, O. Bjorneholm, S.L. Sorensen, M. Wiklund, A. Kikas and S. Svensson, Phys. Rev. A 58 (1998) 2037. (CO - C1s)

SA&98c S.L. Sorensen, A. Ausmees et al. MaxLab report (1998) 196. (O_2 – O1s)

SA&99 C.D. Schroter, L. Avaldi, R. Camilloni, G. Stefani, M. Zitnik and M. Stuhek, J. Phys. B 32 (1999) 171. (Ne1s)

SA&01 R. Sankari, A. Kivimäki, M. Huttula, H. Aksela, S. Aksela, M. Coreno, G. Turri, R. Camilloni, M. de Simone, and K. C. Prince, Phys. Rev. A 63 (2001). (Ar3d)

SB76 W.H.E. Schwarz and R.J. Buenker, Chem. Phys. 13 (1976) 153. (N_2O, CO_2)

SB84 R.N.S. Sodhi and C.E. Brion, J. Electron Spect. 34 (1984) 363. (N_2-N1s, SF_6-S2p, F1s, CO-C1s,O1s, Ar2p, Ne1s)

SB85a R.N.S Sodhi and C.E. Brion, J. Electron Spect. 37 (1985) 1. (C_3H_4, C_4H_6 - C1s)

SB85b R.N.S Sodhi and C.E. Brion, J. Electron Spect. 36 (1985) 187. $(CH_3)_xNH_{3-x}$, x=0-3 - C1s,N1s)

SB85c R.N.S Sodhi and C.E. Brion, J. Electron Spect. 37 (1985) 97. (PH_3, $P(CH_3)_3$, PF_3, PCl_3 -

P2p,P2s,F1s,C1s,Cl2p,Cl2s)

SB85d R.N.S Sodhi and C.E. Brion, J. Electron Spect. 37 (1985) 125. (PF_5, POF_3, $OPCl_3$ - P2p,P2s,F1s,O1s,Cl2p,Cl2s)

SB89 K.H. Sze and C.E. Brion, Chem. Phys. 137 (1989) 353. (ClF_3 - Cl2p,2s, F1s)

SB90 K.H. Sze and C.E. Brion, Chem. Phys. 140 (1990) 439. (TeF_6 - F1s, Te3p, Te3d, Te4s, Te4p, Te4d; SeF_6 - F1s, Se3s, Se3p, Se3d; SF_6 - S2p, S2s, F1s) (*Erratum* Chem. Phys. 147 (1990) 219)

SB91a K.H. Sze and C.E. Brion, J. El. Spect. 57 (1991) 117. (C_3H_6 - C1s; C_2H_4O - C1s, O1s)

SB91b J. Stöhr and K. Bauschspeiss, Phys. Rev. Lett. 67 (1991) 3376. (N_2 - N1s, O_2 - O1s)

SBB68 A.P. Sadovskii, V.M. Bertenev and S.M. Blokhin, Theor. Exp. Chem. 4 (1968) 342 [Teor. i Eksp. Khim. 4 (1968) 533]. (Cl_2, HCl, $CHCl_3$, CCl_4 -Cl1s, Ar1s)

SBC84 R.N.S. Sodhi, C.E. Brion and R.G. Cavell, J. Electron Spect. 34 (1984) 373. (NF_3-N1s, F1s)

SBK89 K.H. Sze, C.E. Brion and A. Katrib, Chem. Phys. 132 (1989) 271. (C_2FH_3 -C1s,F1s; C_2ClH_3 - C1s,Cl2p,2s; C_2BrH_3 - C1s,Br3d,Br3p; C_2IH_3 - C1s,I4d)

SBM90 J. Schirmer, M. Braunstein and V. McKoy, Phys. Rev. A 41 (1990) 283. (CO - C1s,O1s)

SBM91 J. Schirmer, M. Braunstein and V. McKoy, Phys. Rev. A 44 (1991) 5762. (CO - C1s)

SBS94a I.H. Suzuki, J.D. Bozek and N. Saito, Chem. Phys. 182 (1994) 81. (CF_2Cl_2 - C1s, Cl2p, F1s)

SBS94b I.H. Suzuki, J.D. Bozek and N. Saito, Chem. Phys. 188 (1994) 367. (CF_4 - C1s, F1s)

SBS95 N. Sato, J.D. Bozek and I.H. Suzuki, J. Phys. B 28 (1995) 3505. (CF_4 - C1s, F1s)

SBT88 J. Schirmer, A. Barth and F. Tarantelli, Chem. Phys. 122 (1988) 9. (H_2CO-C1s, O1s)

SB&78 W.H.E. Schwarz, W. Butscher, D.L. Ederer, T.B. Lucarto, B. Ziegenbein, W. Mehlhorn and H. Prompeler, J. Phys. B 11 (1978) 591. (Li,Li_2-Li1s)

SB&83 S. Southworth, U. Becker, C.M. Truesdale, P.H. Kobrin, D.W. Lindle, S. Owaki and D.A. Shirley, Phys. Rev. A 28 (1983) 261. (Xe4d)

SB&87 K.H. Sze, C.E. Brion, X.M. Tong and J.M. Li, Chem. Phys. 115 (1987) 433. (SO_2 - S2p,S2s, O1s)

SB&88 K.H. Sze, C.E. Brion, M. Tronc, S. Bodeur and A.P. Hitchcock, Chem. Phys. 121 (1988) 279. ($(CH_3)_2S$=O - C1s,S2p,O1s,S1s)

SB&91 B.K. Sorpal, C. Biancard, J.P. Connerade, J.M. Esteva, J. Hormes, R.C. Karnatak and U. Kuetgans, J. Phys. B 24 (1991) 1593. (Sm3d, Tm3d)

SB&92 D.G.L. Sutherland, G.M. Bancroft, J.D. Bozek and K.H. Tan, Chem. Phys. Lett. 199 (1992) 341. (SiH_4, SiD_4, Si_2H_6, Si_3H_8 - Si2p)

SB&96 J. Schirmer, M.Braunstein, M.T. Lee and V. McKoy, "Core Relaxation Effects in Molecular Photoionization" in VUV and Soft X-ray Photoionization, U. Becker and D.A. Shirley, eds. (Plenum, NY, 1996) 105. (CO,

H_2CO, C_2H_4 - C1s)

SB&02 G.G.B. de Souza, H.M. Boechat-Roberty, M.L.M. Rocco and C.A. Lucas, J. El. Spec. 123 (2002) 315. ($C_{10}H_8$ – C1s)

SC76 W.H.E. Schwarz and T.C. Chang, Int. J. Quant. Chem. 10 (1976) 91. (LiF,Li_2 - Li1s)

SC82 E.C. Sewell and A. Crowe, J. Phys. B 15 (1982) L357. (Ar2p)

SC84 E.C. Sewell and A. Crowe, J. Phys. B 17 (1984) 2913, L547. (Ar2p)

SC95 H.D. Schulte and L.S. Cederbaum, J. Chem. Phys. 103 (1995) 698. ($C_3H_3^+$ - C1s; $B_3N_3H_6$ - B1s, N1s)

SC02 S. K. Semenov and N. A. Cherepkov, Phys. Rev. A 66 (2002) 022708. (N_2 – N1s)

SCC77 W.H.E. Schwarz, T.C. Chang and J.P. Connerade, Chem. Phys. Lett. 49 (1977) 207. (NO_2 - N1s,O1s)

SCT96 H.D. Schutte, L.S. Cederbaum and F. Tarantelli, J. Chem. Phys. 105 (1996) 11106. (N_2 – N1s; CO, H_2CO – C1s, O1s)

SC&84 D.A. Shaw, D. Cvejanovic, G.C. King and F.H. Read, J. Phys. B 17 (1984) 1173. (HBr,Br_2 - Br3d; HCl - Cl2p)

SC&87 W.H.E. Schwarz, T.C. Chang, U. Seeger and K.H. Huang, Chem. Phys. 117 (1987) 73. (C_6H_6, C_6H_5F - C1s)

SC&93 S.J. Schaphorst, C.D. Caldwell, M. O. Krause and J. Jimenez-Mier, Chem. Phys. Lett. 213 (1993) 315. (O_2-O1s)

SC&02 M de Simone, M Coreno, M Alagia, R Richter and K C Prince, J. Phys. B 35 (2002) 61. (CCl_4,CF_4,CH_4 – C1s)

SD89 N. Shanthi and P.C. Deshmulch, Phys. Rev. A 40 (1989) 2400 (Xe4p)

SDD81 J.R. Swanson, D. Dill and J.L. Dehmer, J. Chem. Phys. 75 (1981) 619. (BF_3-B1s,F1s)

SDD86 J.A. Stephens, D. Dill and J.L. Dehmer, J. Chem. Phys. 84 (1986) 3638. (CF_4-C1s, F1s)

SDM88 N. Shanthi, P.C. Deshmukh and S.T. Manson, Phys. Rev. A 37 (1988) 1773, 4720. (Kr3p,Kr3d)

SDT92 A. Sevin, C. Dezarnaud-Dandine and M. Tronc, Chem. Phys. 165 (1992) 245 (CH_3SH - S1s)

SD&83 V.L. Sukhorukov, V.E. Demekhin, V.A. Yavna, I. Dudenko and V.V. Timoshevskaya, Opt. Spectrosc. 55 (1983) 135. [Opt. Spektrosk. 55 (1983) 229] (Ar2p)

SD&84 R.N.S. Sodhi, S. Daviel, C.E. Brion and G.G.B. de Souza, Ann. Israel. Phys. Soc. 6 (1984) 200. (($CH_3)_4$Si-Si2p,C1s)

SD&85 R.N.S. Sodhi, S. Daviel, C.E. Brion and G.G.B. de Souza, J. Electron Spect. 35 (1985) 45. (($CH_3)_4$Si-Si2p,C1s)

SD&79 V.L. Sukhorukov, V.F. Demekhin, V.V. Timoshevskaya and S.V. Lavrentev, Opt. Spectrosc USSR 47 (1979) 228 [Opt. i Spek. 47 (1979) 407] (Ne1s, Ar1s)

SF&90 D. Sondericker, Z. Fu, J. Bradley and W. Eberhardt, J. Chem. Phys. 92 (1990) 2203. ($Ru_3(CO)_{12}$ - C1s,O1s)

SF&95 P. Sladeczak, H. Feist, M. Feldt, M. Martins and P. Zimmermann, Phys. Rev. Lett. 75 (1995) 1483. (W5p, W4f)

SF&01 S.L. Sorensen, R. Fink, R. Feifel, M.N. Piancastelli, M. Bässler, C. Miron, H. Wang, I. Hjelte, O. Björneholm, and S. Svensson, Phys. Rev. A 64 (2002) 012719. (O_2 – O1s)

SF&03 N Saito, A De Fanis, K Kubozuka, M Machida, M Takahashi, H Yoshida, I H Suzuki, A Cassimi, A Czasch, L Schmidt, R Dörner, K Wang, B Zimmermann, V McKoy, I Koyano and K Ueda, J. Phys. B 36 (2003) L25. (CO_2- C1s)

SG82 A. Shah and S.J. Gurman, X-ray Spectrometry, 11 (1982) 2. (O1s)

SG&89 J.A. Sheehy, T.J. Gil, C.L. Winstead, R.E. Farren and P.W. Langhoff, J. Chem. Phys. 91 (1989) 1796. (NO, N_2O, HCN, N_2 - N1s; HCN, H_2CO, CO, CO_2, C_2, C_2H_2, C_2H_4, C_2H_6, C_2N_2 -C1s; F_2 - F1s; O_2, H_2CO, CO, CO_2, NO, N_2O - O1s)

SG&95a H.C. Schmelz, M.A. Gaveau, C. Reynaud, C. Heinzel, H. Baumgartel and E. Rühl, Physica B 208 (1995) 519. (Kr, Kr_n - Kr2p)

SG&95b P. Skytt, J. Guo, N. Wassdahl, J. Nordgren, Y. Luo and H. Agren, Phys. Rev. A 52 (1995) 3572. (C_6H_6 - C1s)

SG&96a P. Skytt, P. Glans, K. Gunnelin, J.H. Guo, J. Nordgren and H. Agren, Skytt's Ph.D thesis (Uppsala, 1996) (CO_2 - O1s)

SG&96b P. Skytt, P. Glans, K. Gunnelin, J.H. Guo, C. Sathe, F.Kh. Gel'mukhanov, A. Cesar and H. Agren, Phys. Rev. Lett. 77 (1996) 5035. (CO_2 - O1s)

SG&97a P. Skytt, P. Glans, K. Gunnelin, J.H. Guo, J. Nordgren, Y. Luo and H. Agren, Phys. Rev. A 55 (1997) 134. (CO -C1s,O1s)

SG&97b P. Skytt, P. Glans, K. Gunnelin, J.H. Guo and J. Nordgren, Phys. Rev. A 55 (1997) 146. (CO -C1s,O1s)

SG&97c S. Sundin, F.Kh. Gel'mukhanov, H. Agren, S.J. Osborne, A. Kikas, O. Bjorneholm, A. Ausmees and S. Svensson, Phys. Rev. Lett. 79 (1997) 1451. (CO - C1s)

SG&97d S. Sundin, F.Kh. Gel'mukhanov, S.J. Osborne, O. Bjorneholm, A. Ausmees, S.L. Sorenssen, A. Naves de Brito, R.R.T. Marinho, S. Svensson and H. Agren, J. Phys. B 30 (1997) 4267. (CO - C1s)

SH&85 Y. Sato, T. Hayaishi, Y. Itikawa, Y. Itoh, J. Murakami, T. Nagata, T. Sasaki, B. Sonntag, A. Yagashita and M. Yoshino, J.Phys. B 18 (1985) 225 (Ca3p)

SH&91 A. Svennson, E.A. Hughes, A. Banichevich, S.D. Peyerimhoff and B.A. Hess, J. Phys. B 24 (1991) 2997. (HBr - Br3d)

SH&93 E. Shigemasa, T. Hayaishi, T. Sasaki and A. Yagashita, Phys. Rev. A 47 (1993) 1824. (CO - C1s, O1s)

SH&95 N. Saito, F. Heiser, O. Hemmers, A. Hempelmann, K. Wieliczek, J. Viefhais and U. Becker, Phys. Rev. A 51 (1995) R4313. (CO - C1s, O1s)

SH&96a E. Shigemasa, T. Hayaishi, K. Okuno, A. Danjo, K. Ueda, Y. Sato and A. Yagashita, J. Electron Spectrosc. 79 (1996) 495. (SiF_4 - Si2p)

SH&96b N. Saito, F. Heiser, O. Hemmers, K. Wieliczek, J. Viefhaus and U. Becker, Phys. Rev. A 54 (1996) 2004. (CO - C1s)

SH&00 N. Saito, A. Hempelmann, F. Heiser, O. Hemmers, K. Wieliczak, J. Viefhaus and U. Becker, Phys. Rev. A 61 (2000) 022709. (N_2 - N1s, CO – C1s)

SH&01 W. C. Stolte, D. L. Hansen, M. N. Piancastelli, I. Dominguez Lopez, A. Rizvi, O. Hemmers, H. Wang, A. S. Schlachter, M. S. Lubell, and D. W. Lindle, Phys. Rev. Lett .86 (2001) 4504. (CO - C1s)

SI&92 A.V. Soldatov, T.S. Ivanchenko, I.E. Shtekhin and A. Bianconi, Sov. Phys. Sol. St. 34 (1992) 1047 (Fiz.Tverd. Tila. St. Petersburg 34 (1992) 1961). (Ne1s)

SI&93 A.V. Soldatov, T.S. Ivanchenko, S. Della Longa and A. Bianconi, Phys. Rev. B 47 (1993) 16155. (Ne1s)

SI&95 T. Sekiguchi, H. Ikeura, K. Tanaka, K. Obi, N. Ueno and K. Honma, J. Chem. Phys. 102 (1995) 422. (H_2O - O1s)

SI&96 M.Sano, Y. Itoh, T. Koizimi, T.M. Kojima, S.D. Kravis, M. Oura, T. Sekioka, N.Watanabe, Y. Awaya and F. Koike, J. Phys. B 29 (1996) 5305. (Xe4d)

SKN51 R. Stephenson, J. Krogstad and F.R. Nelson, Phys. Rev. 84 (1951) 806. (Cl_2 - Cl1s)

SKR80 D.A. Shaw, G.C. King and F.H. Read, J. Phys. B 13 (1980) L723. (Cl_2 - Cl2p)

SKR86 D.A. Shaw, G.C. King and F.H. Read, Chem. Phys. Lett. 129 (1986) 17. (CO_2 - C1s,N_2O-N1s; Kr3d, Xe4d)

SK&82 D.A. Shaw, G.C. King, F.H. Read and D. Cvejanovic, J. Phys. B 15 (1982) 1785. (Ar2p, N2-N1s)

SK&83 D.A. Shaw, G.C. King, F.H. Read, J. Eichler, W. Fritsel, I.V. Hertel, N. Stolterfoht and U. Wille, Proc. 13th ICPEAC (Berlin, 1983) 278. (Kr3d, Xe4d; CO,CO_2-C1s, N_2O-N1s)

SK&84a D.A. Shaw, G.C. King, D. Cvejanovic and F.H. Read, J. Phys. B 17 (1984) 2091. (CO-C1s)

SK&84b D.A. Shirley, P.H. Kobrin, C.M. Truesdale, D.W. Lindle, T.A. Ferrett, P.A. Heimann, U. Becker, H.G. Kerkoff and S.H. Southworth, S.P.I.E. 447 (1984) 150. (CO, CO_2 - C1s)

SK&90 S. Svensson, L. Karlsson, N. Martensson, P. Baltzer and B. Wannberg, J. Electron Spectrosc. 50 (1990) C1-7. (F1s)

SK&91 M. Schmidbauer, A.L.D. Kilcoyne, K.J. Randall, J. Feldhaus, A.M. Bradshaw, M. Braunstein and V. McKoy, J. Chem. Phys. 94 (1991) 5299. (N_2O - N1s, O1s)

SK&92a M. Schmidbauer, A.L.D. Kilcoyne, H.M. Koppe, J. Feldhaus and A.M. Bradshaw, Chem. Phys. Lett. 199 (1992) 119. (CO, CO_2 - C1s, O1s)

SK&92b E. Shigemasa, T. Koizumi, Y. Itoh, T. Hayaishi, K. Okuno, A. Danjo, Y. Sato and A.Yagshita., Rev. Sci. Inst. 63 (1992) 1505. (SiF_4 - Si2p)

SK&93a S.J. Schaphorst, A.F. Kodre, J. Ruscheinski, B. Crasemann, T. Aberg, J. Tulkki, M.H. Chen, Y. Azuma and G.S. Brown, Phys. Rev. A 47 (1993) 1953. (Kr1s)

SK&93b D.G. Sutherland, M. Kasrai, G.M. Bancroft, Z.F. Liu and K.H. Tan, Phys. Rev B 48 (1993) 14989.

$(Si(OCH_3)_x(CH_3)_{4-x}$, x=0-4 - Si2p, Si1s)

SK&94 M. Stuhec, A. Kodre, M. Hribar, D. Glavic-Cindro, I. Arcon and W. Drube, Phys. Rev. A 49 (1994) 3104. (Ar1s)

SK&95a M.H. Sayed, E.T. Kennedy, L. Kiernan, J.-P. Mosnier and J.T. Costello, J. Phys. B 28 (1995) 1715. (Si2p)

SK&95b M. Schmidbauer, A.L.D. Kilcoyne, H.M. Köppe, J. Feldhaus and A.M. Bradshaw, Phys. Rev. A 52 (1995) 2095. (CO_2 - C1s, O1s)

SK&95c O.P. Sairanen, A. Kivimaki, E. Nommiste, A. Naves de Brito, H. Aksela and S. Aksela, MAX report (1995) 200. (Ar2p, Kr3d, Xe4d)

SK&96 O.P. Sairanen, A. Kivimaki, E. Nommiste, H. Aksela and S. Aksela, Phys. Rev. A 54 (1996) 2834. (Ar2p, Kr3d, Xe4d)

SK&02 R. Sankari, A. Kivimäki, M. Huttula, T. Matila, H. Aksela, S. Aksela, M. Coreno, G. Turri, R. Camilloni, M. de Simone, and K.C. Prince, Phys. Rev. A 65 (2002) 042702. (Ar2s)

SLD95 M. Stener, A. Lisini and P. Decleva, Chem. Phys. 191 (1995) 141. (CO, H_2CO, HFCO, F_2CO, $Cr(CO)_6$, $Mo(CO)_6$, $Fe(CO)_5$, $Mn(CO)_5Br$, $Mn(CO)_5H$, $Ni(CO)_4$, NiCO, PdCO, PtCO - C1s, O1s)

SLS97 J.A.R. Samson, Y. Lu and W.C. Stolte, Phys. Rev. A 56 (1997) R2530. (Ar2p)

SLS01 A.C.F. Santos, C.A. Lucas and G.G.B. de Souza, J. El. Spec. 114-116 (2001) 115. (SiF_4 – Si2p)

SLS02 A.C.F. Santos, C.A. Lucas and G.G.B. de Souza, Chem. Phys. 282 (2002) 315. (SiF_4 – Si2p)

SL&91a S.H. Southworth, D.W. Lindle, R. Meyer and P.L. Cowan, Phys. Rev. Lett. 67 (1991) 1098. (CF_3Cl - Cl1s)

SL&91b M. Simon, T.LeBrun, P. Morin, M. Lavollee and J.L. Marechal, Nucl. Inst. Meth. B 62 (1991) 167. (N_2O - N1s)

SL&92 M. Simon, M. Lavollee, T.LeBrun, J. Delwiche, M.J. Hubin-Franskin and P. Morin, AIP Conf. Proc. 258 (1992) 323. ($Fe(CO)_2(NO)_2$ - C1s, N1s)

SL&93 M. Simon, T. Lebrun, R. Martins, G.G.B. de Souza, I. Nenner, M.Lavollee and P. Morin, J. Phys. Chem. 97 (1993) 5228. ($Si_2(CH_3)_6$ - Si2p)

SL&94 D.G.J. Sutherland, Z.F. Liu, G.M. Bancroft and K.H. Tan, Nucl. Inst. Meth. B 87 (1994) 183. (SiH_4, SiD_4, Si_2H_6 - Si2p)

SL&96 M. Simon, M. Lavollee, M.Meyer and P. Morin, J. Electron Spectrosc. 79 (1996) 401. (N_2O - N1s)

SL&97 W.C. Stolte, Y. Lu, J.A.R. Samson, O. Hemmers, D.L. Hansen, S.B. Whitfield, H. Wang, P. Glans and D.W. Lindle, J. Phys. B 30 (1997) 4489. (O1s)

SL&99 G. Snell, B. Langer, M. Drescher, N. Müller, B. Zimmermann, U. Hergenhahn, J. Viefhaus, U. Heinzmann and U. Becker, Phys. Rev. Lett. 82 (1999) 2480. (Xe4d)

SMM79 N.A. Shklyaeva, L.N. Mazalov and V.V. Murakhtanov, J. Struct. Chem. 20 (1979) 621 [Zh. Struk. Khim. 20 (1979) 733]. (SO_2-S2p)

SMN85 G.G.B. de Souza, P. Morin and I. Nenner, J. Chem. Phys. 83 (1985) 492, 2035. ($Si(CH_3)_4$-Si2p)

SMN86 G.G.B. de Souza, P. Morin and I. Nenner, Phys. Rev. A 34 (1986) 4770. (SiH_4-Si2p)

SMN89 G.G.B. de Souza, P. Morin and I. Nenner, J. Chem. Phys. 90 (1989) 7071. (SiF_4-Si2p)

SMS91 J.L. Solomon, R.J. Madix and J. Stöhr, J. Chem. Phys. 94 (1991) 4012. (C_4H_4O - C1s)

SM&70 A.P. Sadovskii, L.N. Mazalov, V.M. Bertenev and V.V. Murakhantanov, Theor. Exp. Chem. 6 (1970) 409 [Teor. i Eksp. Khim. 6 (1970) 502]. (Cl_2, HCl - Cl1s)

SM&78 R. Szargan, A. Meisel, E. Hartmann and G. Brunner, Proc. Int. Conf. X-ray and XUV Spectrosc., Sendai. Jap. J. Appl. Phys. 17 S-2 (1978) 174. (SiF_4-Si2p)

SM&83 W.H.E. Schwarz, L. Mensching, K.H. Hallmeier and R. Szargan, Chem Phys. 82 (1983) 57. (BF_3, BF_4^- -B1s; CF_4 -C1s)

SM&94 P. Sladeczek, M. Martin, M. Richter, K.H. Selbmann and P. Zimmermann, J. Phys. B 27 (1994) 4123. (Pt4f,Pt5p)

SM&95 M. Simon, P. Morin, P. Lablanquie, M. Lavollée, K. Ueda and N. Kosugi, Chem. Phys. Lett. 238 (1995) 42. (BF_3 - B1s)

SM&96 G. O'Sullivan, C.M. Grunes, J. Costello, E.T. Kennedy and B. Wienwann, Phys. Rev. A 53 (1996) 3227. (I4d)

SM&97 M. Simon, C. Miron, N. Leclerc, P. Morin, K. Ueda, Y. Sato, S. Tanaka and Y. Kayanuma, Phys. Rev. Lett. 79 (1997) 3857. (BF_3 - B1s)

SM&98 P. Selles, J. Mazeau, P. Lablanquie, L. Malegat and A.Huetz, J. Phys. B 31 (1998) L353. (Xe4d)

SM&02a S W J Scully, R A Mackie, R Browning, K F Dunn and C J Latimer , J. Phys. B 35 (2002) 2703. (SF_6 – S2p)

SM&02b S. Schippers, A. Müller, S. Ricz, M.E. Bannister, G.H. Dunn, J. Bozek, A.S. Schlachter, G. Hinojosa, C. Cisneros, A. Aguilar, A.M. Covington, M.F. Gharaibeh, R. A. Phaneuf, Phys. Rev. Lett. 89 (2002) 193002. (Sc3p)

SN&84 B. Sonntag, T. Nagata, Y. Sato, Y. Satow, A. Yagishita and M. Yangihara, J. Phys. B 17 (1984) L55. (Xe3d, Cs3d, Ba3d)

SN&86 S.Suzuki, S.Nagaoka, I.Koyano, K. Tanaka and T. Kato, Z. Phys. D 4 (1986) 111. ($GeCl_4$ - Ge3d; $Sn(CH_3)_4$ - Sn4d)

SO&87 J. Stöhr, D.A. Outka, K. Baberschke, D. Arvanitis and J.A. Horsley, Phys. Rev. B 36 (1987) 2976. (C_3H_8 - C1s)

SO&96 S.L. Sorensen, S.J. Osborne, A. Ausmees, A. Kikas, N. Correia, S. Svensson, A. Naves de Brito, P. Persson and S. Lunell, J. Chem. Phys. 105 (1996) 10719. (C_4H_6 - C1s)

SO&97 S. Sundin, S.J. Osborne, A. Ausmees, O. Bjorneholm, S.L. Sorensen, A. Kikas and S. Svensson, Phys. Rev. A 56 (1997) 480. (CO - C1s)

SO&01 Y. Shimizu, H. Ohashi, Y. Tamenori, Y. Murumatsu, H. Yoshida, K. Okada, N. Saito, H. Tanaka, I. Koyano, S. Shin and K. Ueda, J. El. Spec. 114-116 (2001) 63. (Ne1s, CO_2 – C1s,O1s)

SO&02 W C Stolte, G Öhrwall, M M Sant'Anna, I Dominguez Lopez, L T N Dang, M N Piancastelli and D W Lindle, J. Phys. B 35 (2002) L253. (CH_4O – C1s, O1s)

SP66 H.W. Schnopper and L.G. Parratt, Vort. Int. Symp. Rontgenspektron (Leipzig, 1966) 314. (Ar1s)

SP&74 V.P. Sachenko, E.V. Polozhentsev, A.P. Kovtun, Yu. F. Migal, R.V. Vedrinski and V.V. Kolesnikov, Phys. Lett. A 48 (1974) 169. (SF_6 - S2p)

SP&00 F.Sirotti, F.Polack, J.L. Cantin, M. Sacchi, R. Delaunay, M. Meyer and M. Liberati, J. Synch. Rad. 7 (2000) 5. (Ar2p, Ne1s, N_2 – N1s)

SRA02 S. Stranges, R. Richter, and M. Alagia, J. Chem. Phys. 116 (2002) 3679. (OD, OH – O1s)

SR&94 H.C. Schmelz, C. Reynaud, M. Simon and I. Nenner, J. Chem. Phys. 101 (1994) 3742. ($Br(CH_2)_nCl$, n=1-3, Br3d, Cl2p)

SR&95 I. Song, B. Rickett, P. Janavicus, J.H. Payer and M.R. Antonio, Nucl. Inst. Meth. A 360 (1995) 634. (SO_2 - S1s)

SR&00 M. Stankiewicz, J. Ruis I Riu et al, MaxLab (2000) 184. (N_2 – N1s)

SR&02 M. Stankiewicz, J. Ruis I Riu, P. Winiarczyk, J. Alvarez Ruiz, P. Erman, P.A. Hatherly, M.Huttula, A. Karawajczyk, E. Kukk and E. Rachlew-Kallne, Surf. Rev. Lett. 9 (2002) 117. (CD_4- C1s, SF_6 – S2p)

SS59 J.A. Soules and C.H. Shaw, Phys. Rev. 113 (1959) 470. (Ar1s)

SS85 I.H. Suzuki and N. Saito, Bull. Chem. Soc. Japan 58 (1985) 3210. (C_3H_8-C1s)

SS86a N. Saito and I.H. Suzuki, Chem. Phys. 108 (1986) 327. (CH_4-C1s)

SS86b N. Saito and I.H. Suzuki, Chem. Phys. Lett. 129 (1986) 419. (N_2-N1s)

SS87a N. Saito and I.H. Suzuki, J. Phys. B 20 (1987) L785. (N_2-N1s)

SS87b I.H. Suzuki and N. Saito, Bull. Chem. Soc. Japan 60 (1987) 2989. (C_2H_4-C1s)

SS88a N. Saito and I.H. Suzuki, Int. J. Mass Spec. 82 (1988) 61. (N_2-N1s)

SS88b N. Saito and I.H. Suzuki, Phys. Rev. Lett. 61 (1988) 2740. (N_2-N1s)

SS89a N. Saito and I.H. Suzuki, J. Phys. B 22 (1989) L517. (O_2-O1s)

SS89b N. Saito and I.H. Suzuki, J. Phys. B 22 (1989) 3973. (N_2-N1s)

SS89c I.H. Suzuki and N. Saito, J. Chem. Phys. 91 (1989) 5324. (N_2 - N1s)

SS89d N. Saito and I.H. Suzuki, J. Chem. Phys. 91 (1989) 5329. (O_2 - O1s)

SS90 N. Saito and I.H. Suzuki, J. Chem. Phys. 93 (1990) 4073. (O_2 - O1s)

SS91 N. Saito and I.H. Suzuki, Phys. Rev. A 43 (1991) 3662. (NO - N1s,O1s)

SS92a N. Saito and I.H. Suzuki, Phys. Scripta 45 (1992) 253. (Ne1s)

SS92b N. Saito and I.H. Suzuki, J. Phys. B 25 (1992) 1785. (Xe3p)

SS92c A.Schmitt and J. Schirmer, Chem. Phys. 164 (1992) 1. (H_2O - O1s)

SS92d I.H. Suzuki and N. Saito, Int. J. Mass. Spec. 115 (1992) 157; I.H. Suzuki and N. Saito, Bull. Electrotech. Lab. 56 (1992) 46. (Ne1s, Ar2p, Kr3d, Xe4d)

SS94 N. Saito and I.H. Suzuki, Phys. Scripta 49 (1994) 80. (Ne1s, Ar2p, Kr3d, Xe4d)

SS95 I.H. Suzuki and N. Saito, AIP Conf. Proc. 360 (1995) 105. (CO, CO_2 - C1s)

SS97 I.H. Suzuki and N. Saito, Int. J. Mass Spec. Ion Phys. 163 (1997) 229. ($CFCl_3$ - Cl2p, C1s, F1s)

SS98a N. Saito and I.H. Suzuki, J. El. Spec. 88-91 (1998) 65. (Ar2p, Kr3d, Xe4d)

SS98b I.H. Suzuki and N. Saito, Chem. Phys. 234 (1998) 255. ($CFCl_3$ – Cl2p, C1s, F1s)

SS00 I.H. Suzuki and N. Saito, Chem. Phys. 253 (2000) 351. (C_3H_6O – C1s, O1s)

SSB94 I.H. Suzuki, N. Saito and J.D. Bozek, Int. J. Mass Spec. 136 (1994) 55. (CF_2Cl_2 - Cl2p,C1s,F1s)

SSB99 I.H. Suzuki, N. Saito and J.D. Bozek, J. El. Spec. 101-103 (1000) 69. (CF_xCl_{4-x}, x=1-3 - Cl2p, F1s)

SSE82 M. Simsek, S. Simsek and S. Erkoc, Chem. Phys. Lett. 91 (1982) 456. (Li1s)

SSH84a F. Sette, J. Stöhr and A.P. Hitchcock, J. Chem. Phys. 81 (1984) 4906. (24 molecules, sigma-resonance/ bond length correlation)

SSH84b F. Sette, J. Stöhr and A.P. Hitchcock, Chem. Phys. Lett. 110 (1984) 517. (F_2-F1s, C_4F_8-C1s)

SSL91 I. Solomon, J. Silberstein and R.D. Levine, J. Phys. Chem. 95 (1991) 6781. (CH_3CF_3 - C1s)

SSS86 W.H.E. Schwarz, U. Seeger and R. Seeger, (unpublished) (CH_3F - C1s)

SST96 V.L. Shneerson, D.K. Saldin and W.T. Tysoe, Surf. Sci. 345 (1996) 155. (C_2H_2, CO, C_2H_4 - C1s; N_2-N1s; O_2-O1s)

SST97 V.L. Shneerson, D.K. Saldin and W.T. Tysoe, Surf. Sci. 375 (1997) 340. (N_2 –N1s)

SS&85 E. Schmidt, H. Schroeder, B. Sonntag, H. Voss and H.E. Wetzel, J. Phys. B 18 (1975) 79. (Mn3p)

SS&89 N. Saito, I.H. Suzuki, H. Onuki and M. Nishi, Rev. Sci. Inst. 60 (1989) 2190. (Ar2p, N_2 - N1s)

SS&91 E. Shigemsa, T. Sasaki, A. Yagashita, K. Ueda, Y. Sato and T.Hayaishi, Photon Factory Ann. Rep. (1991) 88-185. (O_2-O1s)

SS&95 I.H. Suzuki, N. Saib, M. Koike and J.D. Bozek, Int. J. Mass Spec. Ion Phys. 151 (1995) 45. (CF_3Cl - Cl2p, C1s, F1s)

SS&96 J.A.R. Samson, W.C. Stolte, Z.X. He, J.N. Cutler and D.L. Hansen, Phys. Rev. A 54 (1996) 2099. (Ar2p)

SS&97 B. Santjer, D. Sundermann, M. Wilmer and H. Merz, J. Phys. B 30 (1997) 5501. (Eu4d)

SS&99 S. Sundin, S.L. Sorensen, A. Ausmees, O. Björneholm, I. Hjelte, A. Kikas and S. Svensson, J. Phys. B32 (1999) 267. (CO – C1s)

ST90 W. Sandner and C.E. Theodosiou, Phys. Rev. A 42 (1990) 5208. (Ne1s)

STB83 N. Spector, M.H. Tuilier and C. Bonnelle, Phys. Rev. A 27 (1983) 944. (Na1s)

STS95 V.L. Shneerson, W.T. Tysoe and D.K. Saldin, Phys. Rev. B 51 (1995) 13015. (C_2H_2 - C1s)

STS96 V.L. Shneerson, W.T. Tysoe and D.K. Saldin, Phys. Rev. B 53 (1996) 10177. (N_2 - N1s, O_2 - O1s)

STZ73 B. Sonntag, T. Tuomi and G. Zimmerer, Phys. Stat. Sol. B 58 (1973) 101. (Te_2 - Te4d)

ST&93 J. Schirmer, A.B. Trofimov, K.J. Randall, J. Feldhaus, A.M. Bradshaw, Y. Ma, C.T. Chen and F. Sette, Phys. Rev. A 47 (1993) 1136. (H_2O-O1s, NH_3 - N1s, CH_4, CD_4 - C1s)

SU&90a Y. Sato, K. Ueda, A. Yagashita, T. Sasaki, T. Nagata, T. Hayaishi, M. Yoshino, T. Koizumi, Y. Itoh and A.A. MacDowell, Phys. Scripta 41 (1990) 55. (SiH_4 - Si2p)

SU&90b E. Shigemasa, K. Ueda, Y. Sato, A. Yagashita, H. Maezawa, T. Sasaki, M. Ukai and T. Hayaishi, Phys. Scripta 41 (1990) 67. (SiH_4 - Si1s)

SU&90c E. Shigemasa, K. Ueda, Y. Sato, H. Maezawa, T. Sasaki, A. Yagashita and T. Hayaishi, Phys. Scripta 41 (1990) 63. (N_2 - N1s; O_2 - O1s)

SU&92a E. Shigemasa, K. Ueda, Y. Sato, T. Sasaki and A. Yagashita Phys. Rev. A 45 (1992) 2915. (N_2 - N1s)

SU&92b Y. Sato, K. Ueda, H. Chiba, E. Shigemasa, and A. Yagashita Chem. Phys. Lett. 196 (1992) 475. (SF_6 - S2p)

SU&97 Y. Shimiza, K. Ueda, H. Chiba, M. Okunishi, K. Ohmori, J.B. West, Y. Sato and T. Hayaishi, J. Chem. Phys. 107 (1997) 2419. (BF_3 - F1s)

SU&00 N. Saito, K. Ueda, M. Simon, K. Okada, Y. Shimizu, H. Chiba, Y. Senba, H. Okumura, H. Ohashi, Y. Tamenori, S. Nagaoka, A. Hiraya, H. Yoshida, E. Ishiguro, T. Ibuki, I. H. Suzuki, and I. Koyano, Phys. Rev. A 62 (2000) 042503. (CO_2 – O1s)

SV84 W. Sandner and M. Volkel, J. Phys. B 17 (1984) L597. (Ar2p)

SWD75 R.F. Stewart, D.K. Watson and A. Dalgano, J. Chem. Phys. 63 (1975) 3222. (LiH-Li1s)

SW&98 S.L. Sorensen, M. Wiklund, S. Sundin, A. Ausmees, A. Kikas and A. Svensson, Phys. Rev. A 58 (1998) 1879. (C_2H_4 – C1s)

SW&99 I.T. Steinberger, B. Wassermann, C.M. Teodorescu, G. Reichhardt, D. Gravel, C.W. Hutchings, A.P. Hitchcock, P.A. Dowben and E. Rühl, Phys. Rev. B 60 (1999) 3995. (Kr3p, Xe4p)

SW&02 J Schulz, Ph Wernet, K Godehusen, R Müller, P Zimmermann, M Martins and B Sonntag, J. Phys. B 35 (2002) 907. (Eu4d)

SYD82 V.L. Sukhorukov, V.A. Yavna and V.F. Demekhin, Bull. Acad. Sci. USSR, Phys. Ser. 46 (1982) 131. (Izv. Akad. Nauk. SSSR Ser. Fiz. 46 (1982) 763] (HF-F1s, H_2O-O1s; NH_3-N1s; CH_4-C1s; HCl-Cl2p,Cl1s;

H_2S-S2p,S1s; PH_3 - P2p, P1s; SiH_4-Si2p,S1s)

SY&89 T.K. Sham, B.X. Yang, J. Kirz and J.S. Tse, Phys. Rev A 40 (1989) 652. (CO, CO_2, COS, $(CH_3)_2CO$, C_2H_5OH, $(C_2H_5)_2O$, C_4H_8O (THF), $C_4H_8O_2$ (dioxane) - C1s, O1s)

SY&99 Y. Senba, H. Yoshida, T. Oyata, D. Sakata, A. Hiraya and K. Tanaka, J. El. Spec. 101-103 (1999) 131. (CH_3CN, CD_3CN – N1s)

SY&00 Y. Shimizu, H. Yoshida, K. Okada, Y. Murumatsu, N. Saito, H. Ohashi, Y. Tamenori, S. Fritzsche, N.M. Kabachnik, H. Tanaka and K. Ueda, J. Phys. B 33 (2000) L685. (Ne1s)

SZ92 B. Sonntag and P. Zimmermann, Rep. Prog. Phys. 55 (1992) 911. (review: Li1s, Ba4d, Cu3p, [Sc,Ti,Cr,Mn,Fe,Co,Ni - 3p]; Mn1s, Cu1s, La4d, Ce4d, Gd4d, Th5d, U5d, W5p, Pt5p, [Ba,La,Ce,Pr, Nd,Sm,Eu,Gd,Tb - 4d]

SZ&92 G. Stephani, M. Zitnik, L. Avaldi, R. Camilloni, G. Dawbe, G.C. King and M.A. Siggel, Daresbury Ann. Rep. (1992) (Xe4p)

T85 J. Tulkki, Phys. Rev. A 32 (1985) 3153. (Xe1s, Rn1s)

T86 J.A. Tossell, Am. Minerologist 71 (1986) 1170. (BF_3, $B(OH)_3$ - B1s; H_2CO_3 - C1s)

T88 J. Tse, J. Chem. Phys. 89 (1988) 920. (XeF_2 - Xe4d)

T91 J.A. Tossell, Chem. Phys. 154 (1991) 211. (SF_4, SF_6, S_2F_{10}, SF_2O, SF_4O, SF_2O_2, SO_2 - S2p, S1s)

T93 T. Takaynagi, AIP Conf. Proc. 295 (1993) 326. (Xe4d)

T94 J.A. Tossell, Chem. Phys. Lett. 219 (1994) 65. (SiH_xCl_{4-x}, x=0-4, Si2p)

TA85 J. Tulkki and T. Aberg, J. Phys. B 18 (1985) L489. (Ar1s)

TA&92 J. Tulkki, S. Aksela, H. Aksela, E. Shigemasa, A. Yagashita and Y. Furusawa, Phys. Rev. A 45 (1992) 4640. (Kr3d)

TB&89 T.A. Tyson, M. Benfatto, C.R. Natoli, B. Hedman and K.O. Hodgson, Physica B 158 (1989) 425. (SF_6 - S1s)

TB&99 T.D. Thomas, N. Berrah, J.D. Bozek, T.X. Carroll, J. Halne, T. Karben, E. Kukk and L.J. Saethre, Phys. Rev. Lett. 82 (1999) 1120. (C_2H_2 – C1s)

TC86 R. Tang and J. Callaway, J. Chem. Phys. 84 (1986) 6854. (SF_6-S2p)

TC91 T.D. Thomas and T.X. Carroll, Chem. Phys. Lett. 185 (1991) 31. (O_2-O1s)

TC&02 D. Tulumello, G. Cooper, E. Halliday and A.P. Hitchcock, unpublished. ($C_5H_{14}OSi$, $C_8H_{12}O_3Si$, $C_8H_{18}O_3Si$ - C1s, O1s, Si2p)

TD84 J.A. Tossel and J.W. Davenport, J. Chem. Phys. 80 (1984) 813. (CH_4, CF_4, CCl_4 - C1s; SiH_4, SiF_4, $SiCl_4$ - Si2p)

TD91 M. Tronc and C. Dezarnaud-Dandine, Chem. Phys. Lett. 184 (1991) 267. ($Mo(CO)_6$ - Mo2p)

TD&92a M. Tronc, C. Dezarnaud, G. Cooper, C.E. Brion and A.P. Hitchcock, (1992) unpublished. ($V(CO)_6$ - V2p,

C1s, O1s; $Mo(CO)_6$ - Mo3d, Mo2p)

TD&92b R. Thissen, J. Delwiche, M.J. Hubin-Franskin, M. Furlan, P. Morin, M. Lavollée and I. Nenner, AIP Conf. Proc. (Grenoble Dynamics) 258 (1992) 341. (CH_3NH_2 - N1s)

TE&00 C.M. Teodorescu, J.M. Esteva, M. Womes, A. El Afif, R.C. Karnatak, A.M. Flank and P. Lagarde, J. El. Spec. 106 (2000) 233. (Na, NaF – Na1s)

TE&01 T. Tyliszczak, I.G. Eustatiu, A.P. Hitchcock, C.C. Turci, A.B. Rocha and C.E. Bielschowsky, J. Electron Spectrosc. 114-116 (2001) 93. (CO_2 – C1s, O1s)

TF&91 J.C. Tang, X.S. Feng, J.F. Shen, T. Fujikawa and T. Okazawa, Phys. Rev. B 44 (1991) 13018. (C_2H_4 - C1s)

TF&95 C.C. Turci, J.T. Francis, T. Tyliszczak, G.G.B. de Souza and A.P. Hitchcock, Phys. Rev. A 52 (1995) 4678. (SF_6 - S2p)

TF&99 M.K. Thomas, B.O. Fisher, P.A. Hatherly, K. Codling, M. Stankiewicz and M. Roper, J. Phys. B 32 (1999) 2611. (CF_4 – C1s, F1s)

TGR98 C.M. Teodorescu, D. Gravel and E. Rühl, J. Chem. Phys. 109 (1998) 9280. (S_n n=2-8 – S2p)

TG&99 C.M. Teodorescu, D. Gravel, J. choi, D. Pugmire, P.A. Dowben, N. Fominykh, A.A. Pavlychev and E. Rühl, J. El. Spec. 101-103 (1999) 193. (S_n n=3-8 – S2p)

TG&00 A.B. Trofimov, E.V. Gromev, T.E. Moskovskaya and J. Schirmer, J. Chem. Phys. 113 (2000) 6716. (H_2CO – C1s)

THH87 T.A. Tyson, B. Hedman and K.O. Hodgson, SSRL Report (1987) 158. (SF_6-S1s)

THY86 K. Tohji, D.M. Hanson and B.X. Yang, J. Chem. Phys. 85 (1986) 7492 (O_2 - O1s)

TH&92a T.A. Tyson, K.O. Hodgson, C.R. Natoli and M. Benfatto, Phys. Rev. B 46 (1992) 5997. (Br_2-Br1s; $GeCl_4$ - Ge1s; SF_6 - S1s)

TH&92b R. Thissen, M.J. Hubin-Franskin, M. Furlar, J.L. Pielle, P. Morin and I. Nenner, Chem. Phys. Lett. 199 (1992) 102. (CH_2BrCH_2I - I4d)

TH&96 T.D. Thomas, R.I. Hall, M. Hochlaf, H. Kjeldsen, F. Penent, P. Lablanquie, M. Lavolleé and P. Morin, J. Phys. B 29 (1996) 3245. (Ar2p)

TH&98 M.K. Thomas, P.A. Hatherly, K. Codling, M. Stankiewicz, J. Rius I Riu, A. Karawejczyk and M. Roper, J. Phys. B 31(1998) 3407. (C_3H_8O – C1s, O1s)

TJ&99a D.B. Thompson, De Ji, K. Lee, C.I. Ma and D.M. Hanson, J. Phys. B 32 (1999) 2649. (C_3H_6O – C1s,O1s)

TJ&99b D.B. Thompson, De Ji, S.Y. Chen and D.M. Hanson, J. Phys. B 32 (1999) 5711. (C_2H_4O, C_3H_6O, C_3H_6O – C1s,O1s)

TKM81 I.A. Topol, A.V. Kondratenko and L.N. Mazalov, Opt. Spectrosc. 50 (1981) 267. [Opt. Spektrosk. 50 (1981) 494] PCl_3 - P2p, Cl2p)

TKM82 I.A. Topol, A.V. Kondratenko and L.N. Mazalov, Bull. Acad. Sci. USSR Phys. Ser. 46 (1982) 143. (Izv.

Akad. Nauk. SSSR Ser. Fiz. 46 (1982) 776] (PCl_3,$POCl_3$,$PSCl_3$ - P2p,Cl2p,S2p)

TKR79 M. Tronc, G.C. King and F.H. Read, J. Phys. B 12 (1979) 137. (CH_4, CO_2, C_2H_2, C_2H_4, CF_4, COS - C1s)

TKR80 M. Tronc, G.C. King and F.H. Read, J. Phys. B 13 (1980) 999. (N_2, NO, N_2O - N1s)

TKU98 S. Tanaka, Y. Kayanuma and K. Ueda, Phys. Rev. A 57 (1998) 3437. (BF_3 - B1s)

TK&76 M. Tronc, G.C. King, R.C. Bradford and F.H. Read, J. Phys. B 9 (1976) L555. (CO, CH_4 - C1s)

TK&92 Y. Takata, Y. Kitajima, H. Aga, S. Yagi, T. Asahi, T. Yokoyama, K. Tanaka and T. Ohta, Photon Factory Ann Rep. (1992) 29. (C_4H_4S - S1s)

TK&93 C.M. Teodorescu, R.C. Karnatak, J.M. Esteva, A. El Afif and J.P. Connerade, J. Phys. B 26 (1993) 4019. (Ar1s, Ne1s)

TK&00 X.M. Tong, D. Kato, T. Watanabe and S. Ohtani, J. Phys. B 33 (2000) 717. (Eu4d)

TK&01 X.M. Tong, D. Kato, T. Watanabe and S. Ohtani, Phys. Rev. A 64 (2001) 032716. (Eu4d)

TL89 X.M. Tong and J.M. Li, J. Phys. B 22 (1989) 1531. (NO_2 - N1s)

TL91 J.S. Tse and Z.F.Liu, Phys. Rev. A 44 (1991) 7838. (SF_6 - S2p; PF_5 - P2p)

TLE82 M.H. Tuilier, D. Laporte and J.M. Esteva, Phys. Rev. A 26 (1982) 372. (Na1s)

TLP90 X.M. Tang, J.M. Li and R.H. Pratt, Phys. Rev. A 42 (1990) 5348. (Xe3d, Fe3p)

TL&84 C.M. Truesdale, D.W. Lindle, P.H. Kobrin, U.E. Becker, H.G. Kerkhoff, P.A. Heimann, T.A. Ferrett and D.A. Shirley, J. Chem. Phys. 80 (1984) 2319. (CO,CO_2-C1s,O1s; CF_4-C1s; COS-C1s,S2p)

TL&85 B.T. Thole, G. van der Laan, J.C. Fuggle, G.A. Sawatzky, R.C. Karnatak and J.M. Esteva, Phys. Rev. B 32 (1985) 5107. (La...Yb rare earth 3d)

TL&89 J.S. Tse, Z.F. Liu, J.D. Bozek and G.M. Bancroft, Phys. Rev. A 39 (1989) 1791. ($SiCl_4$ - Si2s,2p; Cl2s,2p)

TMG01 A. B. Trofimov, T. E. Moskovskaya, E. V. Gromov, H. Köppel, and J. Schirmer, Phys. Rev. A 64 (2001) 022504. (H_2CO – C1s,O1s)

TMM94 S.S. Tayal, A.Z. Msezene and S.T. Manson, Phys. Rev. A 49 (1994) 956. (Na2p)

TM&01a M.Tchaplyguine, R.R.T. Marinho, M. Gisselbrecht, R. Feifel, G. Ohrwall, M. Lundwall, S.L. Sorensen, A. Naves de Brito, N. Martensson, S. Svensson and O. Björneholm, MaxLab Report (2001) 210. ($(H_2O)_n$ – O1s)

TM&01b A.B. Trofimov, T.E. Moskovskaya, E.V. Gromov, H. Köppel, and J. Schirmer, Phys.Rev. A 64 (2002) 022504. (H_2CO – C1s, O1s)

TPA98 L. Triguera, L.G.M. Pettersson and H. Agrens, Phys. Rev. B 58 (1998) 8097. (CO, H_2CO, Me_2CO – C1s, O1s; C_2H_2, C_2H_4, C_2H_6 – C1s)

TSH94 R. Thissen, M. Simon and M.J. Hubin-Franskin, J. Chem. Phys. 101 (1994) 7548. (CH_3Cl - Cl2p)

TS&83 C.M. Truesdale, S.H. Southworth, P.H. Kobrin, U. Becker, D.W. Lindle, H.G. Kerlchoff and D.A. Shirley,

Phys, Rev. Lett. 50 (1983) 1265. (CO-C1s,O1s)

TUH96 C. Turci, S. Urquhart and A.P. Hitchcock, Can. J. Chem. 74 (1996) 851. (C_6H_6 - C1s; $C_6H_5NH_2$ - C1s, N1s; $C_6H_5NO_2$, (1,2)-, (1,3)-, (1,4)-$NO_2C6_6H_4NH_2$ - C1s, N1s, O1s)

TV93 J.A. Tossell and D.J. Vaughan, J. Col. Int. Sci. 155 (1993) 98. (H_2CO_3, NH_3CS_2, $(OHCS_2)_2$ - C1s; CH_3SH, H_2COS_2 - C1s, S1s; H_2S_2 - S1s; H_2O_2 - O1s; CuS_2COH-S1s)

TWM94 J.A. Tossell, D.C. Winkler and J.H. Moore, Chem. Phys. 185 (1994) 297. $(SiMe_2)_n$, n=3-6 - Si2p)

TWT92 L.J. Terminello, C.D. Wadwill and J.G. Tobin, Nucl. Inst. Meth. A319 (1993) 271. (N_2- N1s; CO-C1s)

TW&99 C.M. Teodorescu, M. Womes, A. El Afif, R.C. Karnatak, J.M. Esteva, A.M. Flank and P.Lagarde, J. El. Spec. 101-103 (1999) 205. (KF, $(KF)_n$ – K1s)

TY&91 Y. Takata, T. Yokoyama, S. Yagi, N. Happo, H. Sato, K. Seki, T. Ohta, Y. Kitajima and H. Kuroda, Surf. Sci. 259 (1991) 266. (C_6H_5SH - S1s)

U91 K. Ueda, Rev. Laser Eng. 19 (1991) 1089. (BF_3 - B1s)

U93 K. Ueda, AIP Conf. Conf. Proc. 295 (1993) 405. (BF_3 - B1s)

U98 K. Ueda, J. Electron Spectrosc. 88-91 (1998) 1. (PH_3 - P1s; BF_3 - B1s; SF_6 - F1s)

UA&99 S.G. Urquhart, H. Ade, A.P. Smith, L.E. Ennis, J.F. Lehmann and A.P. Hitchcock, (1999) unpublished. ($C_4H_7O_4$ - C1s, O1s; $C_2H_5N_3O_2$, $C_6H_9N_3O_3$, $C_{21}H_{15}N_3O_3$, $C_{24}H_{21}N_3O_3$ - C1s, O1s, N1s)

UC&92 K. Ueda, H. Chiba, Y. Sato, T. Hayaishi, E. Shigemasa and A. Yagashita, Phys. Rev. A 46 (1992) R5. (BF_3-B1s)

UC&94a K. Ueda, H. Chiba, Y. Sato, T. Hayaishi, E. Shigemasa and A. Yagashita, J. Chem. Phys. 101 (1994) 3520. (BF_3-B1s)

UC&94b K. Ueda, H. Chiba, Y. Sato, T. Hayaishi, E. Shigemasa and A. Yagashita, J. Chem. Phys. 101 (1994) 7320. (BCl_3-B1s, Cl2p)

UH96 S.G. Urquhart and A.P. Hitchcock, unpublished. (C_7H_9N - 1s, N1s; $C_{10}H_6F_4$ - C1s)

UHR92 S.G. Urquhart, A.P. Hitchcock and E.G. Rightor, unpublished. ($C_6H_{14}O$, $C_{21}H_{15}N_3O_3$ - C1s, N1s, O1s)

UHR95 S.G. Urquhart, A.P. Hitchcock and E.G. Rightor, unpublished. ($C_5H_{14}O$ -C1s, O1s; $C_9H_6N_2O_2$, $C_{13}H_{17}N_2O_4$, $C_{19}H_{22}N_2O_4$ - C1s, N1s, O1s)

UHR99 S.G. Urquhart, A.P. Hitchcock and E.G. Rightor, unpublished. ($C_{11}H_{14}N_2O_4$, 2,4-$C_9H_6N_2O_2$,2,6-$C_9H_6N_2O_2$ - C1s, N1s, O1s)

UH&94a S.G. Urquhart and A.P. Hitchcock, unpublished. ($C_4H_9F_3O_3SSi$, $C_6H_{15}OSi$, $C_6H_{18}O_3Si_3$, $C_8H_{20}O_4Si$, $C_8H_{24}O_4Si_4$ - Si 2p, C1s, O1s, Si1s)

UH&94b S.G. Urquhart and A.P. Hitchcock, unpublished. ($C_5H_{15}NSi$, $C_7H_{18}N_2Si$, $C_6H_{18}N_3Si$, $C_7H_{21}N_2Si$, $C_8H_{24}N_4Si$, $C_9H_{21}NSi_3$ - Si2p, C1s, N1s, Si1s)

UH&95a S.G. Urquhart, A.P. Hitchcock, R.D. Leapman, R.D.Priester and E.G. Rightor, J. Pol. Sci. B. Pol. Phys. 33

(1995) 1593. $C_8H_{16}O$ - C1s, O1s; $C_7H_7NO_2$, $C_7H_8N_2O$, $C_9H_{11}NO_2$, $C_{10}H_{13}NO_2$, - C1s, N1s, O1s)

UH&95b S.G. Urquhart, A.P. Hitchcock, R.D. Leapman, R.D.Priester and E.G. Rightor, J. Pol. Sci. B. Pol. Phys. 33 (1995) 1603. $_4H_{10}O$, $C_8H_{16}O$ - C1s, O1s; CH_4N_2O, $C_3H_7NO_2$, $C_7H_7NO_2$, $C_7H_8N_2O$, C_8H_9NO, $C_9H_{11}NO_2$, $C_{10}H_{13}NO_2$, $C_{13}H_{12}N_2O$, $C_{13}H_{13}$ - C1s, N1s, O1s)

UH&96 S.G. Urquhart, A.P. Hitchcock, E.G. Rightor and H. Ade, MRS Symp. Proc. 437 (1996) 243. (O-, m-, p-$C_{10}H_{10}O_4$ - C1s, O1s)

UH&97 S.G. Urquhart, A.P. Hitchcock, A.P. Snith, H. Ade and E.G. Rightor, J. Phys. Chem. B 101 (1997) 2267. ($C_{10}H_{10}O_4$ - C1s, O1s)

UH&98 S.G. Urquhart, A.P. Hitchcock, J.F. Lehmann and M. Denk, Organometallics 17 (1998) 2352. ($C_{10}H_{20}N_2Si$, $C_{10}H_{22}N_2Si$, $C_{10}H_{22}N_2Si$, $C_{10}H_{24}N_2Si$ - C1s, N1s, Si2p, Si1s)

UH&99 S.G. Urquhart, A.P. Hitchcock, R. Lessard, E.G. Rightor and G.E. Mitchell, unpublished ($C_4H_8N_2O_3$, $C_4H_8N_2O_3$ - C1s, N1s, O1s)

UM&99 K. Ueda, Y.Muramatsu, Y. Shimizu, H. Chiba, Y. Sato, M. Kitajima, H. Tanaka and N. Nakamatsu, Chem. Phys. Lett. 308 (1999) 45. (PF_5 – P2p)

UO&95a K. Ueda, M. Okunishi, H. Chiba, Y. Shimizu, K. Ohmori and Y. Sato, Chem. Phys. Lett. 236 (1995) 311. (CH_4 - C1s)

UO&95b K. Ueda, K. Ohmori, M. Okunishi, Y. Shimizu, Y. Sato, T. Hayaishi, E. Shigemasa and A. Yagashita, Phys. Rev. A 52 (1995) R1815. (BF_3 - B1s)

UO&96 K. Ueda, K. Ohmori, M. Okunishi, H. Chiba, Y. Shimizu, Y. Sato, T. Hayaishi, E. Shigemasa and A. Yagashita, J. Electron Spectrosc. 79 (1996) 411. (BF_3 - B1s)

US&89a K. Ueda, E. Shigemasa, Y. Sato, S. Nagaoka, I. Kayano, A. Yagashita, T. Nagata and T. Hayaishi, Chem. Phys. Lett. 154 (1989) 357. ($Sn(CH_3)_4$ - Sn3d)

US&89b K. Ueda, E. Shigemasa, Y. Sato, A. Yagashita, T. Hayaishi and T. Sasaki, Rev. Sci. Inst. 60 (1989) 2193. (SiH_4 - Si1s)

US&90a K. Ueda, E. Shigemasa, Y. Sato, S. Nagaoka, I. Kayano, A. Yagashita and T. Hayaishi, Phys. Scripta 41 (1990) 78. ($Sn(CH_3)_4$ - Sn3d)

US&90b K. Ueda, E. Shigemasa, Y. Sato, S. Nagaoka, I. Kayano, A. Yagashita and T. Hayaishi, Chem. Phys. Lett. 166 (1990) 391. ($Sn(CH_3)_4$ - Sn4p,4s)

US&90c K. Ueda, Y. Sato, S. Nagaoka, I. Kayano, A. Yagashita and T. Hayaishi, Chem. Phys. Lett. 170 (1990) 389. ($Ga(CH_3)_3$ - Ga3p)

US&91 K. Ueda, E. Shigemasa, Y. Sato, A. Yagashita, M. Ukai, M. Maezawa, T. Hayaishi and T. Sasaki, J. Phys. B 24 (1991) 605. (Ar1s)

US&96 K. Ueda, Y. Shimizu, H. Chiba, M. Okunishi, K. Ohmori, Y. Sato, E. Shigemasa and N. Kosugi, J. Electron Spectrosc. 79 (1996) 441. (CH_4, CH_3F, CH_2F_2, CHF_3, CF_4 - C1s, F1s)

US&97 K. Ueda, Y. Shimizu, H. Chiba, M. Okunishi, K. Ohmori, J.B. West, Y. Sato, T. Hayaishi, H. Nakamatsu and T. Mukoyama, Phys. Rev. Lett. 79 (1997) 3371. (SF_6 - F1s)

US&99a K. Ueda, Y. Shimizu, N.M. Kabachnik, N. Leclerc, I.P. Sazhina, R. Wehlitz, U. Becker, M. Kitajima and H. Tanaka, J. Phys. B 32 (1999) L291. (Ar2p)

US&99b K. Ueda, M. Simon, C. Miron, N. Leclerc, R. Guillemin, P. Morin and S. Tanaka, Phys. Rev. Lett. 83 (1999) 3800. (CF_4 – C1s)

US&01 K Ueda, Y Shimizu, H Chiba, M Kitajima, H Tanaka, S Fritzsche and N M Kabachnik, J. Phys. B 34 (2001) 107. (Ar2p)

UT83 L. Ungier and T.D. Thomas, Chem. Phys. Lett. 96 (1983) 247. (N_2-N1s; CO- C1s, O1s)

UT84 L. Ungier and T.D. Thomas, Phys. Rev. Lett. 53 (1984) 435. (N_2-N1s, CO-C1s)

UT85 L. Ungier & T.D. Thomas, J. Chem. Phys. 82 (1985) 3146 (CO-C1s,O1s; N_2-N1s)

UT&97 S.G. Urquhart, C.C. Turci, T. Tyliszczak, M.A. Brook and A.P. Hitchcock, Organometallics 16 (1997) 2080. ($C_3H_{10}OSi$, $C_4H_{12}OSi$, $C_6H_{16}OSi$, $C_6H_{18}OSi_2$, $C_6H_{18}Si_2$, $C_{36}H_{30}OSi_2$, $C_{36}H_{30}Si_2$, - Si 1s, Si2p, C1s, O1s)

UT&00 K. Ueda, S. Tanaka, Y. Shimizu, Y. Muramatsu, H. Chiba, T. Hayaishi, M. Kitajima and H. Tanaka, Phys. Rev.Lett. 85 (2000) 3129. (BCl_3 – B1s)

UX&94 S.G. Urquhart, J.Z. Xiong, A.T. Wen, T.K. Sham, K.M. Baines G.G.B. de Souza, and A.P. Hitchcock, Chem. Phys. 189 (1994) 757. ($C_4H_{12}Si$, $C_6H_{18}Si_2$, $C_9H_{28}Si$, $C_{12}H_{36}Si_5$, $C_{12}H_{36}Si_6$ - Si2p, C1s, Si1s)

V88 E. Vatai, Phys. Rev. A 38 (1988) 3777. (N_2-N1s; Ar1s; Ne1s)

VA&75 A.S. Vinogradov, V.N. Akimov, T.M. Zimkina and E.B. Dobryabova, Izv. Sib. Otd. Akad. Nauk SSSR Ser. Khim. (1975) 88. (C_2H_5OH,O_2,CO_2-O1s)

VA&85 A.S. Vinogradov, V.N. Akimov and A.A. Pavylchev, Bull. Acad. Sci. USSR 49 (1985) 1 (Izv. Sib. Otd. Akad. Nauk SSSR Ser. Fiz. 49 (1985) 1458. (N_2- N1s; BF_3 - B1s, F1s; SF_6 - S2p, F1s, review)

VA&92 A.S. Vinogradov, V.N. Akimov, S.V. Nekipelov, A.A. Pavylchev, A.A. Boronoev and A. V. Zhadenov, Opt. Spect. 72 (1992) 599 [Opt. Spek. 72 (1992) 1094]. (CH_3NO_2 - C1s, N1s, O1s)

VBA91 R.V. Vedrinskii, L.A. Bugaev and V.M. Airapetyan, Opt. Spectrosc. (USSR) 70 (1991) 715 [Opt. i Spect. 70 (1991) 1223] (CO, CO_2, COS - O1s)

VD&98 A. Verweyen, D. Donnely, A. Hibbert and K.L. Bell, Phys. Rev. A 58 (1998) 3338. (Cu3p)

VF&96 D.A. Verna, G.J.Ferland, K.T. Korista and D.G. Yakovlev, Astrophys. J. 465 (1996) 487.(Li1s)

VF&98 P. Vaterlin, R. Fink, E. Umbach and W. Wurth, J. Chem. Phys. 108 (1998) 3313. (C_3H_8 - C1s)

VK76 R.V. Vedrinskii and V.L. Kraizman, Bull. Acad. Sci. USSR Phys. Ser. 40 (1976) 114 [Izv. Akad. Nauk. SSSR Ser. Fiz. 40 (1976) 2420]. (SF_6 - S2p, S1s)

VK&74 R.V. Vedrinskii, A.P. Kovtun, V.V. Kolesnikov, Yu. F. Migal, E.V. Polozhentsev and V.P. Sachenko, Bull. Acad. Sci. USSR Phys. Ser. 38 (1974) 8 [Izv. Akad. Nauk. SSSR Ser. Fiz. 38 (1974) 434] (SF_6-S2p)

VK&92 I.Y. Vayrynen, T.A. Kaurila, R.G. Cavell and K.H. Tan, J. Electron Spectrosc. 61 (1992) 55. (PF_3 - P2p)

VM&90 E. Von Raven, M. Meyer, M. Pahler and B. Sonntag, J. El. Spect. 52 (1990) 677. (Xe4d, Kr3d, Ar2p)

VNP91 A.S. Vinogradov, S.V. Nebipelov and A.A. Pavylchev, Sov. Phys. Sol. St. 33 (1991) 508 (Fiz. Tverd. Tela (Len) 33 (1991) 896) (C_6H_6 - C1s; $B_3N_3H_6$ - B1s)

VSZ74 A.S. Vinogradov, B. Shlarbaum and T.M. Zimkina, Opt. Spectrosc. 36 (1974) 383 [Opt. Spektrosk. 36 (1974) 658]. (N_2 - N1s)

VS&92 L. Volky, H.E. Saraph, W. Eissner, Z.W. Liu and H.P. Kelly, Phys. Rev. A 46 (1992) 3945. (Be1s)

VW&00 A. Verweyen, Ph. Wernet, P. Glatzel, B. Sonntag, Ch. Gerth, K. Godehusen and P. Zimmermann, J. Phys. B 33 (2000) 1563. (Cu3p)

VZ71a A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. 31 (1971) 288 [Opt. Spektrosk. 31 (1971) 542]. (SiF_4 - F1s, S2p)

VZ71b A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. 31 (1971) 364 [Opt. Spektrosk. 31 (1971) 685]. (H_2S,SO_2 - S2p)

VZ72 A.S. Vinogradov and T.M. Zimkina, Opt. Spectrosc. 32 (1972) 17 [Opt. Spektrosk. 32 (1972) 33]. (SF_6 - S2p)

VZF71 A.S. Vinogradov, T.M. Zimkina and V.A. Fomichev, J. Struct. Chem. 12 (1971) 823 [Zh. Struk. Khim. 12 (1971) 899]. (SF_6 - F1s)

VZ&74 A.S. Vinogradov, T.M. Zimkina, V.N. Akimov and B. Shlarbaum, Bull. Acad. Sci. USSR Phys. Ser. 38 No. 3 (1974) 69 [Izv. Akad. Nauk. SSSR Fiz. Ser. 38 (1974) 508] (N_2, NF_3 - N1s; NF_3 - F1s; O2 - O1s)

W65 F. Wuilleumier, J. de Phys. (Paris) 26 (1965) 776. (Ar1s)

Wa65 T. Watanabe, Phys. Rev. 139 (1965) 1747. (Ar1s)

W70 F. Wuilleumier, C.R. Acad. Sci. Paris 270 (1970) 825. (Ne1s)

W71 F. Wuilleumier, J. de Phys. (Paris) 32 (1971) C4-88.

W75 G. Wendin, Phys. Lett. A 51 (1975) 291. (Ba4d)

W76 G. Wendin, J. Phys. B 9 (1976) L297. (Ba4d)

W80 M.J. Van der Wiel, Proc. XI ICPEAC (Kyoto, 1979) 209. (SF_6-S1s; N_2-N1s; CO-C1s; $CHCl_3$,CCl_4-Cl2p - review)

W84 G. Wendin, Phys. Rev. Lett. 53 (1984) 724. (La3p, Th5d, U5d)

W92 A.T. Wen, Ph.D. thesis, McMaster University (1992). (C_9H_7 MnO_3 - C1s, O1s, Mn3p,2p; $SiCl_4$, Si_2Cl_6 - Si2p,

Cl2p; $SiMe_4$, Si_2Me_6, Si_6Me_{12}, $Si[Si(CH_3)_3]_4$- C1s, Si2p; $CpTiCl_3$, Cp_2TiCl_2, $TiCl_4$ -C1s,Cl2p,Ti2p)

W01 J.B. West, J. Phys. B 34 (2001) R45. (review; Al2p, Ba4d, C1s, Cr2p, I4d, Mg2p, Mn2p, Na2p, Si2p, Xe4d)

WA&98 N. Watanabe, X. Awaya, A. Fujino, Y. Itoh, M. Kitajima, T.M. Kojima, M.Oura, R.Okuma, M. Sano, T. Sekioka and T. Koizumi, J. Phys. B 31 (1998) 4137.(Xe4d)

WA&01 J.B. West, T. Andersen, R.L. Brooks, F. Folkmann, H. Kjeldsen, H. Knudsen, Phys. Rev. A 63 (2001) 052719. (Al2p)

WB72 H.H. Wellenstein and R.A. Bonham, Chem. Phys. Lett. 15 (1972) 530. (Ar2p)

WB74a G.R. Wight and C.E. Brion, J. El. Spectrosc. 3 (1974) 191. (CO_2, N_2O - C1s, N1s, O1s)

WB74b G.R. Wight and C.E. Brion, J. El. Spectrosc. 4 (1974) 25. (CH_4, NH_3, H_2O, CH_3OH, CH_3OCH_3, CH_3NH_2 - C1s,N1s, O1s)

WB74c G.R. Wight and C.E. Brion, J. El. Spectrosc. 4 (1974) 313. (NO, O_2 - N1s, O1s)

WB74d G.R. Wight and C.E. Brion, J. El. Spectrosc. 4 (1974) 327. (CF_4 - C1s, F1s)

WB74e G.R. Wight and C.E. Brion, J. El. Spectrosc. 4 (1974) 335. (CS_2, COS - C1s, S2p, O1s)

WB74f G.R. Wight and C.E. Brion, J. El. Spectrosc. 4 (1974) 347. [$(CH_3)_2CO$ - C1s, O1s]

WB74g G.R. Wight and C.E. Brion, Chem. Phys. Lett. 26 (1974) 607. (Z+1 analogy - H_2O, NH_3, CH_4)

WB74h G.R. Wight and C.E. Brion, Proc. 4th Int. Vac. UV Rad. Phys. Conf. (Hamburg, 1974) 184. (CH_4-C1s; NH_3-N1s; H_2O-O1s)

WBW73 G.R. Wight, C.E. Brion and M.J. Van der Wiel, J. El. Spectrosc. 1 (1972/73) 457. (N_2, CO - C1s, N1s)

WBW99 K. Weiss, P.S. Bagus and Ch. Woll, J. Chem.Phys. 111 (1999) 6834. (C_3H_8, C_4H_{10} – C1s)

WBW02 R. Wehlitz, J. B. Bluett, and S. B. Whitfield, Phys. Rev. Lett. 89 (2002) 093002. (Li1s)

WCK91 S.B. Whitfield, C.D. Caldwell and M.O. Krause, Phys. Rev. A 43 (1991) 2338. (Mg2p)

WC&92 S.B. Whitfield, C.D. Caldwell, D.X. Huang and M.O. Krause, J. Phys. B 25 (1992) 4755. (Xe4d).

WB&76 H.W. Wolff, R. Bruhn, K. Radler, B. Sonntag, Phys. Lett. A 59 (1976) 67. (Ce4d)

WDD82 S. Wallace, D. Dill and J.L. Dehmer, J. Chem. Phys. 76 (1982) 1217. (NO-N1s,O1s)

WD&97 F.J. Wuilleumier, S. Diehl, D. Cubaynes, J.M. Bizau and E.T. Kennedy, J. Electron Spectrosc. 88-91 (1997) 41. (Li1s) - ICES-7

WF&00 H. Wang, R.F. et al. MaxLab Report (2000) 190. (NO – N1s)

WF&01 H. Wang, R.F. Fink, M N Piancastelli, I Hjelte, K Wiesner, M Bässler, R Feifel, O Björneholm, C Miron, A Giertz, F Burmeister, S L Sorensen and S Svensson, J. Phys. B. 34 (2001) 4417. (NO – N1s)

WH90 A.T. Wen and A.P. Hitchcock, unpublished. (C_2HCl_3 - C1s, Cl2p)

WH93 A.T. Wen and A.P. Hitchcock, Can. J. Chem. 71 (1993) 1632. ($CpTiCl_3$, Cp_2TiCl_2, $TiCl_4$ - C1s, Cl2p, Ti2p)

WHR92 A.T. Wen, A.P. Hitchcock and E. Ruhl, (1992) unpublished. ($BzCr(CO)_3$, $CrBz_2$, CH_3-$BzCr(CO)_3$ - C1s, Cr2p,3p, O1s; $C_9H_5O_4V$ - V2p, C1s, O1s)

WH&90 A.T. Wen, A.P. Hitchcock, N.H. Werstiuk, N. Nguyen and W.J. Leigh, Can. J. Chem. 68 (1990) 1967. (C_7H_{10}, C_8H_{12}, $C_8F_3H_9$ - C1s)

WJ&94 F.J. Wuilleumier, L. Journal, B. Roussellow, D. Cubaynes, J.M. Bizeau, Z. Liu, J. Liu, M. Richter, P. Slodeczak, K.H. Selmann and P. Zimmermann, Phys. Rev. Lett. 73 (1994) 3074. (Na2p)

WJ&01 Th Weber, O Jagutzki, M Hattass, A Staudte, A Nauert, L Schmidt, M H Prior, A L Landers, A Bräuning-Demian, H Bräuning, C L Cocke, T Osipov, I Ali, R Díez Muiño, D Rolles, F J García de Abajo, C S Fadley, M A Van Hove, A Cassimi, H Schmidt-Böcking and R Dörner, J. Phys. B 34 (2001) 3669. (CO – C1s, N_2 – N1s)

WK74 F. Wuilleumier and M.O. Krause, Phys. Rev. A 10 (1974) 242. (Ne1s)

WK&94 S.B. Whitfield, M.O. Krause, P. van der Muellen and C.D. Caldwell, Phys. Rev. A 50 (1994) 1269. (Mn3p)

WK&01 S.B. Whitfield, K. Kehoe, R. Wehlitz, M.O. Krause, C.D. Caldwell, Phys. Rev. A 64(2002) 022701. (Sc3p)

WL98 F. Wang and F.P. Larkins, J. Phys. B 31 (1998) 1649. (NO - N1s, O1s)

WM69 W.S. Watson and F.J. Morgan, J. Phys. B 2 (1969) 277. (Ar2p,Kr3p,Xe4s)

WM78 J.B. West and R.X. Morton, At. Data Nucl. Data Tables 22 (1978) 106. (total and partial cross-sections)

WMT89 H.X. Wan, J.H. Moore and J.A. Tossell, J. Chem. Phys. 91 (1989) 7343. (SiX_4H_{4-x}, x=0-3, SiF_4 - Si2p)

WMT92 H.X. Wan, J.H. Moore and J.A. Tossell, unpublished (CCl_xF_{4-x}, x= 0-4 - C1s)

WMT94a D.C. Winkler, J.H. Moore and J.A. Tossell, Chem. Phys. Lett. 219 (1994) 57. (SiH_xCl_{4-x}, x=0-2 - Si2p)

WMT94b D.C. Winkler, J.H. Moore and J.A. Tossell, Chem. Phys. Lett. 222 (1994) 1. ($SiMe_x(OMe)_{4-x}$, x=0-4 - Si2p)

WPM77 H.T. Wang, W.S. Felps and S.P. McGlynn, J. Chem. Phys. 67 (1977) 2614. (H_2O - O1s)

WP&98 H. Wang, M.N. Piancastelli et al. MaxLab Report (1998) 198. (NO – N1s, O1s)

WRE89a B. Wastberg, A. Rosen and D.E. Ellis, Z. Phys. D 12 (1989) 377 (Mn_2 -Mn1s; Co_2 - Co1s; Ni_2 - Ni1s)

WRE89b B. Wastberg, A. Rosen and D.E. Ellis, Z. Phys. D 13 (1989) 153 (Fe_2 -Fe1s; Ni_2, Ni_3 - Ni1s)

WRH89 A.T. Wen, E. Ruhl and A.P. Hitchcock, unpublished. ($C_{13}H_{20}MnO$ -C1s, O1s, Mn2p, Mn3p; $C_{10}Cl_2H_{10}V$, $C_{10}H_{10}Mg$ – C1s)

WRH92 A.T. Wen, E. Ruhl and A.P. Hitchcock, Organometallics 11 (1992) 2559. ($FeCp_2$, $Fe(CO)_5$, $Fe_2(CO)_9$, $C_4H_6Fe(CO)_3$, 1,3-$C_6H_8Fe(CO)_3$, COT-$Fe(CO)_3$, $Fe(Cp)_2$, $C_2H_3CpFeCp$, $C_4H_9CpFeCp$ - C1s, O1s, Fe3p, Fe2p)

WR&82 H.W. Wolff, K. Radler, B. Sonntag and R. Haensel, Z. Phys. 257 (1972) 353. (Na2p,2s)

WR&01 K.R. Wilson, B.J. Rude, T. Catalano, R.D. Schaller, J.G. Tobin, D.T. Co and R.J. Saykally, J. Phys. Chem B 105 (2001) 3346. (H_2O- O1s)

WS72 M.J. Van der Wiel and Th.M. El-Sherbini, Physica 59 (1972) 453. (N_2 - N1s; CO - C1s)

WS76 H.W. Wolff, B.F. Sonntag, 2nd Int. Conf. on Inner Shell Ioniz. Phen., Abstracts, Freiburg (1976) 78. (CsF - Cs4d)

WS78 G. Wendin and A.F. Starace, J. Phys. B 11 (1978) 4119. (Ba4d, La4d)

WSB70 M.J. Van der Wiel, Th. M. El-Sherbini and C.E. Brion, Chem. Phys. Lett. 7 (1970) 161. (CO - C1s, O1s; N_2 - N1s)

WS&75 H.F. Wellenstein, H. Schmoranzer, R.A. Bonham, T.C. Wong and J.S. Lee, Rev. Sci. Inst. 46 (1975) 92. (N2 - N1s)

WTA91 S.B. Whitfield, J.Tulkki and T. Aberg, Phys. Rev. A 44 (1991) R6983. (Mg2p)

WW71 M.J. Van der Wiel and G. Wiebes, Physica 53 (1971) 225. (Ar2p)

WW77 G.R. Wight and M.J. Van der Wiel, J. Phys. B 10 (1977) 601. (Xe4d)

WW97 D.K. Waterhouse and J.F. Williams, Phys. Rev. Lett. 79 (1997) 391. (Ar2p)

WWT76 M.J. Van der Wiel, G.R. Wight and R.R. Tol, J. Phys. B 9 (1976) L5. (Ar2p)

WW&96 W.B. Weterveld, J. van der Weg, J. van Eck, H.G.M. Heideman and J.B. West, Chem. Phys. Lett. 252 (1996) 107. (CO - C1s)

WW&02 S.B. Whitfield, R. Whelitz, M.O.Krause and C.D. Caldwell, Surf. Rev. Lett. 9 (2002) 1229. (Fe3p)

WZ&97 R.M. Wood, Q. Zheng, A.K. Edwards and M.A. Mangai, Rev. Sci. Inst. 68 (1997) 1382. (N_2 -N1s)

XJ&95 J.Z. Xiong, D.T. Jiang, Z.F. Liu, K.M. Baines, T.K. Sham, K.H. Tan and X.H. Feng, Physica B 208 (1995) 451. ($C_{12}H_{36}Si_5$ - Si2p, Si1s)

XJ&96a J.Z. Xiong, D.T. Jiang, Z.F. Liu, K.M. Baines, T.K. Sham, S.G. Urquhart, A.T. Wen, T. Tyliszczak, A.P. Hitchcock, Chem. Phys. 203 (1996) 81. ($C_6H_{18}Si_2$ - Si2p, Si2s, Si1s)

XJ&96b J.T. Ziong, D. Jiang, C.E. Dixon, K.M. Baines and T.K. Sham, Can. J. Chem. 74 (1996) 2229. ($SiMe_4$, $Si(SiMe_3)_4$, $Si(GeMe_3)_4$, $Ge(SiMe_3)_4$ - Si 1s)

Y93 L. Yang, J. Phys.B 26 (1993) 1813. (Na1s)

YA&86 A. Yagshita, S. Arai, C.E. Brion, T. Hayaishi, J. Murakami, Y. Sato and U. Ukai, Chem. Phys. Lett. 132 (1986) 437. (SiH_4 - Si2p)

YA96 L. Yang and H. Agren, Phys. Rev. B 54 (1996) 1. ($H(C_2H_2)_nH$, n=1-5 - C1s)

YA&96 L. Yang, H. Agren, V. Carravetta and L.G.M. Pettersson, Phys. Scripta 54 (1996) 614. (CO, H_2CO, CO_2 $(CH_3)_xH_{2-x}CO$, x=0-2, C_3H_8CO, $C_4H_{10}CO$, $C_6H_{14}CO$ - C1s, O1s)

YA&97 L. Yang, H. Agren, L.G.M. Pettersson and V. Carravetta, J. Electron Spectrosc. 83 (1997) 209. (CO, H_2CO,

CO_2, H_2CO, MeHCO, Me_2CO, EtHCO, Et_2CO, Pr_2CO, PrHCO; COCu,$COCu_{17}$,$COCu_{50}$ - C1s, O1s)

YHT88 B.X. Yang, D.M. Hanson and K. Tohji, J. Chem. Phys. 89 (1988) 1215. (O_2-O1s)

YH&00 B.W. Yates, Y.F. Hu, K.H. Tan, G. Ratzlaff, R.G. Cavell, T.K. Sham and G.M. Bancroft, J. Synchr. Rad. 7 (2000) 296. (N_2, NO – N1s, CO – C1s)

YK87 B.X. Yang, and J. Kirz, Phys. Rev. B 35 (1987) 6100. (CO_2-O1s EXAFS)

YKD90 V.A. Yavan, A.N. Khoperskii and V.F. Demekhin, Opt. Spectrosc. (USSR) 68 (1990) 134. (Opt. i Spekt. 68 (1990) 231). (Kr1s, Xe1s)

YKS84 B.X. Yang, J. Kirz and T.K. Sham, NSLS Report (1984) 189. (CO_2-O1s)

YKS85a B.X. Yang, J. Kirz and T.K. Sham, Nucl. Inst. Meth. Phys. Res. A 236 (1985) 419. (CO_2 - O1s)

YKS85b B.X. Yang, J. Kirz and T.K. Sham, Phys. Lett. A 110 (1985) 301. (O_2, CO, CO_2-O1s)

YKS86 B.X. Yang, J. Kirz and T.K. Sham, J. Phys.(Paris) 47 C-8 (1986) 585. (O_2, CO, CO_2, COS - O1s EXAFS)

YKS87 B.X. Yang, J. Kirz and T.K. Sham, Phys. Rev. A 36 (1987) 4298. (CO, CO_2, COS, $(CH_3)_2CO$, CH_3OH, Et_2O, C_4H_8O, $C_8H_8O_2$ - O1s)

YK&86a V.A. Yavna, A.N. Khoperskii, I.D. Petrov and V.L. Sukhorukov, Opt. Spect (USSR) 61 (1986) 273; [Opt. Spekt. 61 (1986) 435] (Na1s)

YK&86b V.A. Yavna, A.N. Khoperskii, I.D. Petrov and V.L. Sukhorukov, Opt. Spect (USSR) 61 (1986) 577; [Opt. Spekt. 61 (1986) 922] (Ar1s,2p)

YK&96 T. Yokoyama, K. Kobayashi, T. Ohta and A. Ugawa, Phys. Rev. B 53 (1996) 6111. (Br_2 - Br1s; $HgCl_2$ - Hg2p)

YL94 J.F. Ying and K.T. Leung, J. Chem. Phys. 101 (1994) 7311. ($CF_{4-n}Cl_n$, n=0-4 - C1s, Cl2p)

YML93 J.F. Ying, C.P. Mathus and K.T. Leung, Phys. Rev. A 47 (1993) R5. (SF_6 - S2p)

YM&84 V.D. Yumatov, L.N. Mazalov, A.V. Okotruhl and I.A. Topol, J. Struct. Chem. 25 (1984) 545. ($POCl_3$ - P2p, Cl2p)

YM&89 A. Yagashita, H. Maezawa, M. Ukai and E. Shigemasa, Phys. Rev. Lett. 62 (1989) 36. (N_2 - N1s)

YM&92 A. Yagashita, S. Masui, T. Toyoshima, H. Maezawa and E. Shigemasa, Rev. Sci. Inst. 63 (1992) 1351. (CO-C1s, N_2-N1s, Ne1s)

YND94 V.A. Yavna, A.M. Nadolinsky and V.F. Demekhina, J. El. Spec. 68 (1994) 267. (CO - C1s; CO, O_2 - O1s)

YNH98 V.A. Yavna, A.M. Nadolinsky and A,N, Hopersky, J. El. Spec. 94 (1998) 49. (CO - C1s)

YN&02 H. Yoshida, K. Nobusada, K. Okada, S. Tanimoto, N. Saito, A. De Fanis, and K. Ueda, Phys. Rev. Lett. 88 (2002) 083001. (CO_2 – C1s)

YOW01 Yoshinori Iketaki, Kazumasa Ohtsuki and Tsutomu Watanabe , J. Phys. B 34 (2001) 1889. (NO-N1s,O1s)

YO&02 H. Yamaoka, M. Oura, K. Kawatsura, T. Hayaishi, T. Sekioka, A. Agui, A. Yoshigoe, and F. Koike, Phys. Rev. A 65 (2002) 012709. (Ne1s)

YPD91 V.A. Yavna, V.A. Popov and L.A. Demekhina, Opt. Spectrosc. (USSR) 70 (1991) 155 [Opt. i Spek. 70 (1991) 270] (HCl-Cl2p)

YPM85 C.H. Yu, R.M. Pitzer and C.W. McCurdy, Phys. Rev. A 32 (1985) 2134. (N_2-N1s)

YP&86 V.A. Yavna, I.D. Petrov, L.A. Demekhima, A.N. Khoperskii and V.L. Sukhorukov, Opt. Spect (USSR) 74 (1986) 552; [Opt. Spekt. 74 (1993) 3765] (Na1s)

YP&93 V.A. Yavna, V.A. Popov, S.A. Yavna and L.A. Demekhima, Opt. Spect (USSR) 74 (1993) 413; [Opt. Spekt. 74 (1993) 695] (SiH_4-Si2p)

YP&97 L.Yang, O. Plachkevytch, H. Agren and L.G.M. Pettersson, J. Phys. C 2 (1997) 227. (C_6H_7N, C_6H_6O, C_6H_5F, $C_8H_6O_2$ - C1s)

YS92 A. Yagashita and E. Shigemasa, Rev. Sci. Inst. 63 (1992) 1383. (CO-C1s; N_2-N1s; O_2-O1s)

YSK94 A. Yagashita, E. Shigemasa and N. Kosugi, Phys. Rev. Lett. 72 (1994) 3961. (O_2 - O1s)

YS&90 T. Yokoyama, K. Seki, I. Morisada, K. Edamatsu and T. Ohta, Phys. Scripta 41 (1990) 189. (C_6H_6 - C1s, polyphenylenes, polyacenes)

YS&02 G. Yalovega, A.V. Soldatov, M. Riedler, M.R. Pederson, A. Kolmakov, C. Nowak and T. Möller, Chem. Phys. Lett. 356 (2002) 23. $(NaCl)_4$ – Cl2p, Na1s)

YW83 O. Yagci and J.E. Wilson, J. Phys. C 16 (1983) 383. (Xe 3d)

YY&99 H. Yoshida, T. Yangihara et al. UVSOR Report (1999) 66. ($C_5H_8O_2$ – O1s)

YZ&02 Z.S. Yuan, L.F. Zhu, X.J. Liu, Z.P. Zhong, W.B. Li, H.D. Cheng, and K.Z. Xu, Phys. Rev A 66(2002) 062701 (Kr3d)

Z99 O. Zatsarinny, J. Phys. B 32 (1999) L565. (Li1s)

ZAV87 A.V. Zadenov, V. N Akimov and A.S. Vingradov, Opt. Spectrosc (USSR) 62 (1987) 204; [Opt. Spekt. 62 (1987) 340] (N_2-N1s)

ZB93 O.I. Zatsarining and L.A. Bandurina, J. Phys. B 26 (1993) 3765. (Na2p)

ZBS75 P. Ziem, R. Bruch and N. Stolterfoht, J. Phys. B. 8 (1975) L480. (Li1s)

ZCB90 E.B. Zarate, G. Cooper and C.E. Brion, Chem. Phys. 148 (1990) 289. (PH_3 - P2p,2s)

ZC&89 W. Zhang, G. Cooper, T. Ibuki and C.E. Brion, Chem. Phys. 137 (1990) 391. (CF_4 - C1s, F1s)

ZF67 T.M. Zimkina and V.A. Fomichev, Sov. Phys. Doklady 11 (1967) 726 [Dokl. Akad. Nauk. SSSR 169 (1966) 1304]. (SF_6 - S2p)

ZG71 T.M. Zimkina and S.A. Gribovskii, J. de Phys. 32 (1971) C4-282. (review of atomic photoionisation; Kr3d, Xe4d)

ZIB92 W. Zhang, T. Ibuki and C.E. Brion, Chem. Phys. 160 (1992) 435. (CF_xCl_{4-x}, x=1-3, F1s, C1s, Cl2p,2s)

ZKP92 B. Zhan, L. Kissel and R.H. Pratt, Phys. Rev. A 45 (1992) 2983. (Ar2p,Ne1s)

ZL84 A. Zangwill and D.A. Liberman, J. Phys. B 17 (1984) L253. (Xe3d)

ZMP83 A. Zhang, J.F. Morar and R.L. Park, J. Vac. Sci. Tech. A 1 (1983) 461. (CO,CO_2 C1s,O1s; N_2-N1s)

ZS80 A. Zangwill and P. Soven, Phys. Rev. Lett. 45 (1980) 204. (Ba4d)

ZS&90 W. Zhang, K.H. Sze, C.E. Brion, X.M. Tong and J.M. Li, Chem. Phys. 140 (1990) 265. (NO_2 - N1s, O1s)

ZS&91 K. Zhang, E.A. Stern, J.J. Rehr and D.E. Ellis, Phys. Rev. B 44 (1991) 2030. (Xe2p,2s)

ZT&79 J.P. Ziesel, D. Teillet-Billy, L. Bouby and R. Paineau, Chem. Phys. Lett. 63 (1979 47. (CO - K-shell excited negative ion resonances)

ZV71 T.M. Zimkina and A.S. Vinogradov, J. de.Phys. (Paris) 32 (1971) C4-3. (review; SF_6,SO_2,H_2S-S2p; SiF_4,$SiCl_4$-Si2p; SF_6,SiF_4-F1s)

ZV72 T.M. Zimkina and A.S. Vinogradov, Bull. Acad. Sci. USSR Phys. Ser. 36 (1972) 229 [Izv. Akad. Nauk. SSSR Fiz. Ser. 36 (1972) 248]. (review; SO_2,CS_2,H_2S,SF_6 - S2p; SiF_4 - Si2p; NF3 - N1s; B_2H_6,BF_3 - B1s; SF_6, SiF_4,BF_3 - F1s)

ZY02 J. Zeng and J. Yuan, J. Phys. B 35 (2002) 3041. (O1s)

ZZ&92 Y. Zhang, Y. Zhou, Z. Luo and D.M. Hanson, J. Phys.Chem. 96 (1992) 2949. (CO-C1s; HCN - C1s,N1s; N_2O, NO_2 - N1s,O1s; H_2O, O_3 - O1s)

ZZL97 Y. Zhang, P.H. Zhang and J.M. Li, Phys. Rev. A 56 (1997) 1819. (N_2 - N1s; CO - C1s, O1s)

REVIEW ARTICLES (time order)

S66 J.A.R. Samson, Adv. Atom. Mol. Phys. 2 (1966) 178.

FC68 U. Fano and J. W. Cooper, Rev. Mod. Phys. 40 (1968) 441.

ZG71 T.M. Zimkina and S.A. Gribovskii, J. de Phys. 32 (1971) C4-282.

ZV71 T.M. Zimkina and A.S. Vinogradov, J. de.Phys. (Paris) 32 (1971) C4-3.

D72 J.L. Dehmer, J. Chem. Phys. 56 (1972) 4496.

F72 U. Fano, Comments At. Mol. Phys. 3 (1972) 75.

C73 K. Codling, Rep. Prog. Phys. 36 (1973) 541.

AP74 L.V. Azaroff and D.M. Pease, X-ray Absorption Spectroscopy, Ch 6 in *X-ray Spectroscopy* (L.V. Azaroff, ed.) (1974, McGraw-Hill,NY)

S74 W.H.E. Schwarz, Angew. Chem. Int. Ed. Engl. 13 (1974) 454.

R75 M.B. Robin, Chem. Phys. Lett. 31 (1975) 140.

FTD76 U. Fano, C.E. Theodosiou and J.L. Dehmer, Rev. Mod. Phys. 48 (1976) 49.

C78 J.P. Connerade, Contemp. Phys. 19 (1978) 415.

R78 F.H. Read, J. Phys. Coll. 1 S5 (1978) 82.

KS79 E.E. Koch and B.F. Sonntag in, Topics in Current Physics 10 *Synchrotron Radiation*. (Springer, Heidelberg, 1979) 269.

B80 F.C. Brown, 'Inner-shell Threshold Spectra', Ch. 4 in *Synchrotron Radiation Research*, Winnick and S. Doniach (eds.) (Plenum, NY, 1980).

S80b A.F. Starace, Appl. Optics 19 (1980) 4051.

W80 M.J. Van der Wiel, Proc. XI ICPEAC (Kyoto, 1979) 209.

B82a C.E. Brion, Physics of Electronic and Atomic Collisions, (Proc. of XII ICPEAC, Tennessee, 1981), S. Datz, ed. (North-Holland, 1982).

BD&82 C.E. Brion, S. Daviel, R.N.S. Sodhl and A.P. Hitchcock, Int. Conf. on X-ray and Atomic Inner-Shell Physics, AIP Conf. Proc. 94 (1982) 429.

DBH83 S. Daviel, C.E. Brion and A.P. Hitchcock, Rev. Sci. Inst. 55 (1984) 182.

B85 C.E. Brion, Com. At. Mol. Phys. 16 (1985) 249.

R85 M.B. Robin, *Higher Excited States of Polyatomic Molecules* (Vol. 3, Academic, Florida, 1985).

VA&85 A.S. Vinogradov, V.N. Akimov and A.A. Pavylchev, Bull. Acad. Sci. USSR 49 (1985) 1 (Izv. Sib. Otd. Akad. Nauk SSSR Ser. Fiz. 49 (1985) 1458.

NB87 I. Nenner and J.A. Beswick, *Photodissociation and Photoionisation*, Chapter 6 in *Handbook on Synchrotron Radiation*, Vol. 2 (G. Marr, ed) (Elsevier, 1987).

H89 A.P. Hitchcock, Ultramicroscopy, 28 (1989) 165.

H90a A.P. Hitchcock, Phys. Scripta T31 (1990) 159.

H90b D.M. Hanson, Adv. Chem. Phys. 77 (1990) 1.

S90b N. Saito, Research of the Electrotechnical Laboratory, No. 910 (1990) 88 pages.

H92b A.P. Hitchcock, *Collision Processes of Ions, Positrons, Electrons and Photons with Matter*, Proc. ELAF-91 (World Scientific, 1992) 104.

K92 P. Kitzler, *"Directory of Numerical XANES Studies"*, Phys. Lett. A 172 (1992) 66.

S92 J. Stöhr, *NEXAFS Spectroscopy*, Spr. Ser. Surf. Sci. Vol. 25 (Heidelberg, 1992).

Sc92 V. Schmidt, *"Photoionisation of Atoms using Synchrotron Radiation"*, Rep. Prog. Phys. 55 (1992) 1483.

SZ92 B. Sonntag and P. Zimmermann, *XUV Spectroscopy of Metal Atoms*, Rep. Prog. Phys. 55 (1992) 911-987.

HM94 A.P. Hitchcock and D.C. Mancini, *"Bibliography and Database of Inner-shell Excitation Spectra of Gas Phase Atoms and Molecules"*, J. Electron Spectrosc. 67 (1994) 1.

G94 F.M.F. de Groot, *"Review of Theory and Experiment for X-ray Absorption Spectra of Transition Metal Compounds"*, J. Electron Spectrosc. 67 (1994) 529.

HZ96 T. Hayaishi and P. Zimmermann, *Ion Yield Spectroscopy with Soft X-rays* in VUV and Soft X-ray Photoionization, U. Becker, D.A. Shirley, eds. (Plenum, NY, 1996) 465.

NM96 I. Nenner and P. Morin, *Electronic and Nuclear Relaxation of Core Excited Molecules* in VUV and Soft X-ray Photoionization, U. Becker and D.A. Shirley, eds. (Plenum, NY, 1996) 291-355 (366 refs).

O96 H. Oyanagi, *X-ray Absorption Fine Structure* in Appl. of Synchrotron Radiation to Materials Analysis, (H. Saisho and Y. Goshi, eds) 207.

H00 A.P. Hitchcock, J. El. Spec. 112 (2000) 9. (inner shell electron impact)

W01 J.B. West, J. Phys. B 34 (2001) R45. (atomic and ion photoionization)

HN02 A.P. Hitchcock and J.J. Neville, Chemical Applications of Synchrotron Radiation, Part I: Dynamics and VUV Spectroscopy, Advanced Series in Physical Chemistry Vol 12A, (World Scientific, Singapore, 2002) 154.

K02 N. Kosugi, Chemical Applications of Synchrotron Radiation, Part I: Dynamics and VUV Spectroscopy, Advanced Series in Physical Chemistry Vol 12A, (World Scientific, Singapore, 2002) 228.