CURRICULUM VITAE

Lawrence Berkeley National Lab
Chemical Sciences Division
One Cyclotron Road
Bldg 2, Room 118, MS 2-R0100
CA 94720-8176, Berkeley
USA

Dr. Thorsten Weber, Diploma Physicist

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born 28th of June 1972

in Usingen/Ts. Germany
german
single, global mobility

189 Third Street, Apt. 319
Oakland
CA 94607, USA

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Dr. Thorsten Weber

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CURRICULUM VITAE

Job Details

Code Number	017379 in the Chemical Sciences Division of LBNL
Working Title	Divisional Fellow

Personal Data

Name	Dr. Thorsten Weber
Profession	Diploma-Physicist, PhD
Age	35 years
Gender	male
Residence	Berkeley/CA
Citizenship	German
Family Status	single
Driver License	motorbike and passenger car

Professional Training

Education	1991 general qualification for university entrance (grade 2.0) at the Christian-Wirth comprehensive secondary school Usingen/Germany
Alternative Service	1991 paramedic training in Bonn, Frankfurt, and Herbstein/Germany (grade 1.7) at the Malteser Emergency Service in Usingen/Germany
Studies	Field: 1992 - 2003 Physics at the J.W. Goethe University Frankfurt/Germany Focused on: Experimental atomic and molecular and optics (AMO) physics, many particles systems, imaging technique, electronics and physical chemistry, ultra fast AMO science

Dr. Thorsten Weber

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Degrees:

Pre-degree	1994	(grade 2.0)
Diploma	1999	(passed with distinction because of brilliant achievement)
Doctorate	2003	("…the doctorate has been rated with excellent…")
Title	Dr. phil. nat./group leader	

Theses:
„Impulstransfer in Proton-Heliumstößen untersucht mit hochauflösender Rückstoßionenimpulsspektroskopie" (Momentum Transfer in Proton-Helium collisions investigated with high resolution Recoil-ion Momentum Spectroscopy),
Diploma Thesis at the Institut für Kernphysik Frankfurt of the Johann-Wolfgang-Goethe
University Frankfurt a.M./Germany, (1999)

„Untersuchung der verschränkten Bewegung freier Elektronenpaare emittiert aus Ein- und Zweizentren Coulomb-Potentialen in Photoabsorptionsprozessen" (Investigation of the entangled Motion of free Electron Pairs emitted from Single- and Double Well Coulomb Potentials in Photoionization Processes),
Dissertation at the Institut für Kernphysik Frankfurt of the Johann-Wolfgang-Goethe
University Frankfurt a.M./Germany, (2003)

Awards and Distinctions:
- Scholarship on the basis of the Hessian law for the promotion of procreation scientists (2000 – 2002)
- Feodor-Lynen-award of the Alexander von Humboldt foundation for the promotion of autonomous research abroad (2003 – 2005)
- Grant for the formation of a young investigator group at DESY/Hamburg in collaboration with the University of Frankfurt/Germany sponsored by the Helmholtz foundation 2005
- Conrad-Wilhelm Röntgen Prize of the Justus Liebig University Giessen/Germany 2005

Occupational History

Since November 2006
Job title: Divisional Fellow at the recently established Ultrafast X-ray Science Lab of the Chemical Sciences Division of the Lawrence Berkeley National Laboratory in the USA.
Tasks: Setup of an autonomous research group (approx. 5 coworkers). Fundamental research in the fields of atomic

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and molecular physics with synchrotron radiation (ALS), and short laser pulses (on attosecond and femtosecond time-scale) as well as with Free Electron Laser light (LCLS Stanford). Project planning of several experiments with a term of 5 years. Design, development, and setup of 2 measuring apparatuses ($250k each), continuous purchase of components at specified suppliers. Direct supervision of postdocs and training of diploma and PhD students, establishing cooperations with strategic partners, job interviews and hiring procedures, preparation of quarterly reports for funding (DOE, LDRD) and proposals for research facilities, setup (of vacuum chambers, electronics, data acquisition) and realization of the experiments in the US (as well as in Germany: Collaboration with the Institut für Kernphysik Frankfurt), active participation at international conferences. Computer administration and set up of several workstations (Windows XP) and one file server (Windows 2003 Server). Webpage design (PHP) and content for the AMO group at LBNL.
Competencies: Recruitment, hiring and training, finances, choosing subject matters, technical and scientific steering of research projects, publication and PR
Line: Experimental fundamental research (atomic, molecular and solid state physics) at international research facilities in conjunction with an University (UC Berkeley)

September 2005 – October 2006
Job title: Leader of a Helmholtz Young investigator group at the DESY/Hamburg in collaboration with the Institut für Kernphysik/University Frankfurt
Tasks: Setup and leadership of an autonomous research group (7 coworkers) as a link between a university and an international research facility. Fundamental research in the fields of atomic and molecular physics with synchrotron radiation (DORIS and ALS), and short laser pulses (on femtosecond timescale) as well as with Free Electron Laser light (VUV-FEL). Project planning of 7l experiments with a term of 5 years. Design, development, and setup of 2 measuring apparatuses (€300k each), continuous purchase of components at specified suppliers. Lectures (2 hours per week), direct supervision of postdocs and training of diploma and PhD students. Participation in 2 cooperation (managing of their activities at DESY), job interviews and hiring procedures, preparation of quarterly reports for funding (DFG, BMBF, AvH, HGF) and proposals for research facilities, setup (of vacuum chambers, electronics, data acquisition) and realization of the experiments at laser, synchrotron, and FEL facilities in Germany and the US, active participation at international conferences

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Competencies: Recruitment, hiring and training, finances, choosing subject matters, technical and scientific steering of research projects (definition of milestones), publication and PR
Line: Experimental fundamental research (atomic, molecular and solid state physics) at international research facilities in conjunction with a university (JWG Frankfurt)

June 2003 – June 2005
Job title: Autonomous visiting scientist at the Lawrence Berkeley National Laboratory sponsored with a Feodor-Lynen grant of the Alexander von Humboldt foundation
Tasks: Organization and performance of 4 experiments with a term of 2 years, setup and test of a new imaging system in collaboration with the Roentdek company (a market dominating firm), realization and supervision of the experiments, data analysis, training of 2 Diploma students, establishing of a collaboration with a top-ranking theory group, coordination of up to 8 collaborators with different nationalities and affiliations
Competencies: Choosing subject matters, technical and scientific steering of research projects, training of coworkers and students, publication and PR
Line: Experimental fundamental research (atomic and molecular physics) at an international research facility (LBNL-USA)

May 2001 – June 2003
Job title: PhD student research associate at the J.W. Goethe University Frankfurt/Germany
Tasks: Design, engineering and setup of 3 experiments in the field of atomic and molecular experimental fundamental physics at national and international research facilities (occasionally leader of a group of up to 8 coworkers from different affiliations and with different nationalities), realization of the experiments, data analysis, supervision of Diploma and PhD projects. Development, and tests as well as optimization of imaging systems and detectors in collaboration with a market dominating company (Roentdek) at home and abroad
Competencies: Organization and realization of several national and international (sub-)projects (with terms of 4 weeks to 3 months) at universities and research facilities, training of coworkers (PhD and diploma students as well as trainees), publication and PR
Line: Experimental fundamental research (atomic, molecular and solid-state physics) at a university and several national and international research facilities (BESSYII, DESY, GSI, IKF, APS, CAB, CERN, GANIL, LBNL, NRC, SPring8)

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Dr. Thorsten Weber

May 2000 – May 2002
Job title: Demy on the basis of the Hessian law for the promotion of procreation scientists, PhD student
Tasks: Elaboration of the doctoral thesis, supervision of Diploma and PhD students
Line: Experimental fundamental research (atomic, molecular and solid-state physics) at the university Frankfurt

February 1999 – May 2000
Job title: PhD student and research associate at the J.W. Goethe University Frankfurt
Tasks: Supervision of trainees in the advanced labs of the Institut für Kernphysik Frankfurt/Germany, preparing and maintaining experiments for trainees, correcting minutes and evaluation of students. Design, engineering, and setup of 2 experiments dealing with atomic and molecular physics at home and abroad (occasionally leader of a group of up to 8 coworkers from different affiliations and with different nationalities), realization of the experiments, data analysis, supervision of Diploma and PhD projects.
Competencies: Organization and realization of several national and international (sub-)projects (with terms of 4 weeks to 3 months) at universities and research facilities, training of coworkers (PhD and diploma students as well as trainees), publication and PR
Line: Experimental fundamental research (atomic and molecular physics) at the university Frankfurt

October 1996 – March 1999
Job title: Collegiate assistant and Diploma student at the Institut für Kernphysik Frankfurt/Germany
Tasks: Autonomous operation and supervision of accelerator machines and their auxiliary devices during night shifts and weekends. Design, engineering and setup of a kinematical complete experiment in the field of ion-atom collision, data analysis, publication and PR, active participation at various experiments at home and abroad.
Line: Operator of 2 Van-de-Graaff accelerator machines and experimental fundamental research (atomic physics)

Language Skills, Academic Training, Computing etc.

Language Skills	German:	native language
	English:	business fluent in spoken and written
	French:	proficiency in spoken and written

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International Stays

Active participation in 26 different research projects and 22 conferences at home and abroad (Argentina, France, Germany, Italy, Japan, Canada, Mexico, Austria, Switzerland, USA): thereof project leader 11-times

Duration of stays:

Conferences	totaled approx. 4 months
Research projects	totaled approx 14 months (1 to 8 weeks each) + 2 years of continuous work as a Feodor Lynen Fellow at the Lawrence Berkeley National Laboratory (USA)

Computing

MS-DOS (2), Windows NT/2000/XP/Server2003 (2) and VMS operating system (4), MS-Office-applications (2), internet (PHP) Phase5 (2), Auto-CAD (4), CorelDRAW (3), Fortran 90 (Compaq Visual Fortran) (2), SIMION 3D (Simulation of electromagnetic fields) (3), PAW/LabView/COBOLD (event-mode data acquisition and analysis) (1), Microcal Origin (scientific data preparation) (1)

Rating:	very good		good		basics	
	1	2	3	4	5	6

Technical know-how

design, simulation, engineering,
set-up and accomplishment
cryogenic- und vacuum technique,
particle accelerators,
imaging and position sensitive detector techniques,
CAMAC and NIM-electronics (nuclear scientific electronics and control units)
particle spectroscopy/short-time metrology
computer set-up in hard- and software (data acquisition computers and work stations as well as file servers) and administration as well as fast electronics read-out

Publications

62 articles in (professional-)journals and books, 33 conference proceedings

Highlights:

Nature	2
Science	1 (+1 under review)
Physics News	1
Physical Review Letters	16 (+ 3 in progress, 2 • front-page)
Journal of Physics	11

Reviewed manuscript for: Nature, Optics Express

Fellowships

Deutsche Physikalische Gesellschaft (DPG)
(German Physical Society)

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Dr. Thorsten Weber

Longtime and (now passive) member of the Schnelle Eingreif Gruppe (SEG; civil protection) of the Malteser emergency service (triage, medical care, transportation) in Usingen/Germany

Hobbies

Myth Harley-Davidson ('Ride and Customize'), winter sports, endurance training, basketball

About me

The choice of the field and the way I studied it tells you a lot about my personality. My ability for associativities, my flexibility as well as my capacity to work in a team can be retrieved in all spheres of action.

The understanding of complex interrelationships and the discovery of structures has always been fascinating to me. Especially I get into practicable solutions of problems and their application to new constellations.

During my studies I was always looking for new challenges at home and abroad. This demanded a lot of persistence, mobility and give-and-take. In all these projects I could bring in my talent for organization and my ability of improvisation very well.

With a lot of commitment I took every chance to acquire considerable expertise and experience. Today this makes me an internationally high valued contact person who can stimulate research and set new trends.

I am always anxious to see the "big picture" and I like to work project-orientated. My fast and practical apprehension, my determined and committed action as well as my tolerant and straight attitude help me to find a position in a team very quickly and to assume responsibility.

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Personal Qualifications
Vigorousness

Personal amenities

- poise, self-confidence, pragmatic openness, tolerance
- commitment, creativity and autonomy
- talent for organization and improvisation, project oriented thinking

Professional amenities

- achievements and experience in research and development
- achievements and experience in leading small groups (up to 8 coworkers)
- achievements and experience with the settlement of national and international projects

Social amenities

- team-player and consent ready colleague
- contact-strongly with conversational partners of different hierarchies and nationalities
- decisive, beginning high-level executive

Vocational aims and possible assignment

- searching for the challenge in R&D, management, consulting, operation and manufacturing
- poise and persuasive appearance
- outgoing personality with managerial skills
- experience in training and motivation of coworkers
- international and interdisciplinary team work desired
- maximum employment and motivation

Employment Conditions

Minimum Fee: no free-lancing intended

Minimum Salary: ≥ $100k

Possible Starting Date: by arrangement

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Preferred Place of Work: USA and Europe (preferably Germany, England, France, Austria, Spain, Switzerland) as well as Australia

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Berkeley/CA, 27 June 2007

Dr. Thorsten Weber

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Enclosures

University:

Letter of Reference Prof. Dr. R. Dörner
Letter of Recommendation Prof. Dr. H. Schmidt-Böcking
Letter of Reference Prof. Dr. C.L. Cocke

C.W. Röntgen Award of the University Gießen †
Post-Doctoral Certificate †
Doctoral Certificate †
Diploma Certificate †
Diploma Report †
Pre-degree in Physics †
Operator - Certificate †

Paramedic Certificate †

Certificate of having passed the Abitur †

International Stays

Publication List

† Available only in German language

Letter of Reference Prof. Dr. R. Dörner

(Page 1/2):

Johann Wolfgang Goethe-Universität
Frankfurt am Main

Prof. Dr. Reinhard Dörner
Phone: 049 69 798 24218
Fax:: 049 69 798 24212
email: doerner@hsb.uni-frankfurt.de

Institut für Kernphysik
August Euler Str. 6
D60486 Frankfurt am Main

15.06.2003

Letter of Reference

Dr. Thorsten Weber, born 6/28/1972, has been in a member of our group at the Institut für Kernphysik Frankfurt (IKF) of the Johann Wolfgang Goethe University Frankfurt/Germany since the 1st of November 1996 to the 15th of June 2003. Dr. Weber earned his doctorate with distinction ('magna cum laude') in May 2003.

During his stay in our group he was engaged in fundamental research in atomic physics. He worked very successfully with state-of-the-art laser systems, synchrotron radiation and particle beams from accelerator devices. Among other things he has mastered

- vacuum technology,
- a broad spectrum of analog and digital electronics
- substantial experience in computer programming.

During his doctorate work, he achieved two major scientific and technological breakthroughs which earned big attention world wide. For the year 2000 his work was awarded by the American Physical Society (APS) as one of the most important result in physics world wide. Dr. Weber received many invitations to numerous international conferences which emphasize the top-quality of his work very impressively.

Dr. Weber supervised autonomously several substantial international research projects very successfully:
Among these projects were top-class manned German-American and German-Danish collaborations at the European and world largest particle physics laboratory (CERN) and an American research facility (ALS).

For the accomplishment of these projects it was necessary:

- to schedule the financial/administrative transactions in terms of considerably large proposals at German federal, EU and American authorities,
- to coordinate and supervise a group of 2 to 7 coworkers,
- to deal with technical preparations, prototyping, purchasing of high technology products as well as the production control in machine shops,
- to perform output saving, data analysis and publication of scientific results and technologic progress in international papers as well as in the presentation at international conferences in both German and English.

Dr. Weber has a multifaceted and international work experience. He has worked on projects in Japan, Switzerland, Canada, USA, France and Argentina. All of the projects he supervised autonomously were finished successfully in short time. Even under the most difficult circumstances, like in a multicultural environment with different languages, he worked very diligently toward the success-

Letter of Reference Prof. Dr. R. Dörner

(Page 2/2):

ful completion of numerous projects. In each of his collaborative efforts, he showed an outstanding degree of ability to work as part of a team.

The scientific brilliance as well as the results-orientation and the purposefulness of Dr. Weber is emphasized by the outstanding number and quality of his publications. 40 letters in 6 years, with 13 publications in Physical Review Letter (the most important journal of physics world wide) and 1 Nature article, show an exemplary productivity.

His personal integrity and his professional judgment have earned him the highest respect of both his coworkers and supervisors.

Dr. Weber's behavior toward colleagues, coworkers and external contacts was very exemplary at any time. Even against high-pressure deadlines he always showed resilience and commitment.

After earning his Ph.D., Dr. Weber left our group in order to carry out a specific research project at the renowned Lawrence Berkeley National Laboratory in Berkeley/California, USA. He is currently sponsored by the Alexander von Humboldt foundation.

We very much regret losing Dr. Weber as a brilliant coworker, and we are thankful for his consistently excellent achievements as part of our group.

We wish him the very best for his future career.

Reinhard Dörner

(Prof. Dr. Reinhard Dörner)

Letter of Recommendation Prof. Dr. H. Schmidt-Böcking

(Page 1/2):

Johann Wolfgang Goethe-Universität
Frankfurt am Main

Der Dekan
Prof.Dr.H.Schmidt-Böcking
Stefan Lyson Professor
Gräfstraße 39
60486 Frankfurt am Main
Postfach 111932
60054 Frankfurt am Main
Tel. 069-79823313
Fax 069-79828309
18.2.2004

Letter of recommendation for Mr. Dr. phil. nat. Thorsten Weber

I have known Thorsten Weber for approximately 8 years. Dr. Weber earned both diploma and doctorate degrees working in my group. Through our close interaction over these years, I have developed a high regard for both his professional and personal capabilities. Dr. Weber is a scientist who is not afraid to delve into a problem, undertaking the full responsibility of finding solutions independently with consistent and constant motivation.

In both his diploma and doctorate projects, he performed brilliantly. For his doctorate he was confronted with the task to measure and compare the full dynamics in momentum space of the photo double ionization of both helium atoms and deuterium molecules. Dr. Weber developed an apparatus that was able to detect both continuum electrons and both nuclear fragments of the doubly ionized D_2 molecule in coincidence. In this four particle coincidence measurement, a very high coincidence rate (in total approx. a few percent) and an extreme high momentum resolution of 0.1 a.u. (which corresponds to a few milli-eV in energy space) was achieved, which is a tremendous technical achievement. He has a strong background in modern supersonic gas-jet devices, multi-hit detector techniques, fast electronics, and multi-parameter data acquisition; his technical skills would be readily adaptable to most any laboratory situation.

The imaging apparatus developed by Dr. Weber represents a state-of-the-art reaction microscope. In designing and operating the apparatus, Dr. Weber proved to have excellent experimental skills. He carried out the experiments very autonomously. He took data which represent the first fully differential cross sections in momentum space for the molecule fragmentation induced by photons. During his time as a doctoral candidate, he was also installing COLTRIMS-apparatuses (imaging systems) for the RoentDek Company. This included setting-up and testing, operating, customer care in Japan, tests and further development of novel detector prototypes and electronics in Berkeley/USA.

In addition to his thesis work, Dr. Weber contributed to many other research projects of our group. For example, he is the first author of a pioneer work dealing with the many particle fragmentation of atoms in strong femtosecond laser fields; this work was published in 'Nature' and has been discussed as a benchmark experiment. With this work alone, he could have earned his doctorate already two years ago. But we, his supervisors, could not convince him to use this work as a PhD thesis. Instead, he set his target to a full and first time investigation of a four body break-up of the D_2-molecule. The extremely substantial PhD thesis he wrote represents in principle a complete research program comparable to a habilitation. This work generates new basic principles in molecular physics and challenges theory in an incomparable manner.

Letter of Recommendation Prof. Dr. H. Schmidt-Böcking

(Page 2/2):

Dr. Weber supervised several graduate students during his doctorate work. In doing so he has proven to be an excellent team worker and has shown that he can direct and motivate young students. His scientific work performed so far is just excellent. This is emphasized by his outstanding publication list. His performance was also awarded by the highly desirable Feodor-Lynen grant which enabled him to take a position as a PostDoc at UC-Berkeley.

He is a well liked colleague in our group who has stood up for other members. I personally would be very happy if he will go on doing research at the university since he has the skills to set the Thames on fire in fundamental physics.

(Prof. Dr. Horst Schmidt-Böcking)

Letter of Reference Prof. Dr. C.L. Cocke

(Page 1/2):

K·STATE
Kansas State University

Department of Physics
116 Cardwell Hall
Manhattan, KS 66506-2601
785-532-6786
Fax: 785-532-6806

October 27, 2004

Letter of reference for Thorsten Weber:

For about three decades I have observed a long string of talented students emerge from the atomic physics group of Prof. Dr. Horst Schmidt-Böcking at the University of Frankfurt. Several of these have gone on to be at the very core of atomic physics excellence in Germany today. Certainly at the head of this list would be Prof. Joachim Ullrich and Prof. Reinhard Dörner. I consider Dr. Thorsten Weber to be a potential "next in line" in this illustrious stream. Dr. Weber is presently a Feodor Lynen Fellow under the auspices of the Alexander von Humboldt Foundation at the Lawrence Laboratory National Laboratory in Berkeley, formally working in collaboration with me and Dr. M.H. Prior. In fact, he is the *de facto* leader of the international COLRTIMS collaboration which has been in place at the Advanced Light Source (ALS) for about a decade.

Dr. Weber's list of accomplishments is so long and diverse that I will only be able to touch on a few high points of his career. I first met Dr. Weber through his Diplom work on the fully kinematically controlled measurements of ionization in proton-He collisions. He successfully exploited the high-resolution momentum-resolving capability of COLTRIMS to reveal details of the momentum transfer distribution among projectile, nucleus and electron(s) in quasi-fast proton-helium collisions. This work provided insights into simple ionization and capture-processes at a level not previously available, and greatly enhanced our confidence in theoretical calculations of these processes. His Diplom thesis was at a level which would earn a Ph.D. degree at many universities.

Following his ion-atom collision work, Dr. Weber proceeded to apply COLTRIMS techniques to the interaction of short laser pulses with light atomic targets. I believe that his work was the first in what is now a long list of publications in the literature pointing out that the recoil ion momentum can be used to differentiate very simply and easily between so called "sequential" and "non-sequential" double ionization processes. From this work came four major publications which I consider to be somehow "seminal" in this area, in PRL, Nature, JPB and Optics Express. At Kansas State University we presently have several research programs which I would have to say really follow in the path set by these experiments. I am quite sure that Dr. Weber could easily have produced a Ph.D. dissertation from this work alone, had he not been so involved in pushing other frontiers instead.

For many years he has been a major player in a collaboration at the ALS at the Lawrence Berkeley National Laboratory in Berkeley to do COLTRIMS on light atomic and molecular targets with linearly and circularly polarized hard photons. This publication list from this work is extremely long, but I would like to select for comment one paper on which Dr. Weber was first author. COLTRIMS enables one to measure the photoelectron angular distributions from molecules which are "fixed in space" *a posteriori* by detection of the fragment emission axis. By selection of the kinetic energy release of the molecules, Dr. Weber and collaborators were able to show that, for some emission channels, the usual axial emission assumption fails (reference 17 in his publication list), and thus information on the life-

Letter of Reference Prof. Dr. C.L. Cocke

(Page 2/2):

time of the breaking complex is contained in the apparent body-fixed electron angular distributions. It was this paper which really led to the further development of this idea and its application to a measurement of the isomerization time for acetylene to vinylidene in the dication of acetylene (reference 30). This subject continues to be of great interest to both physicists and chemists and attracted a short newsletter description in Physics Today in September of 2003. Dr. Weber was also the first author on the use of these techniques to measure body-fixed angular distributions of Auger electrons from this same molecule.

By far the most impressive result of Dr. Weber's work in this collaboration, and that which he eventually chose to make the subject of his Ph.D. dissertation, is the photo-double ionization of the deuterium molecule with kinematic control over the angle and kinetic energy release of the two emerging deuterons as well as that of both electrons. In spite of this being the most basic and simple molecule for which double ionization can be studied, no such experiment had ever appeared before. The major reason for this is quite simple: it is very demanding experimentally. Dr. Weber was able to reveal detailed angular and energy distributions of the electrons and to challenge the most complete theoretical calculations available. One major surprise was the revelation that the photoelectron emission patterns are quite sensitive to the inter-nuclear distance from which they are emitted. The amount of information in his dissertation is so great that it will probably continue to diffuse into the literature for some time. Results from his dissertation have appeared already in one PRL and one Nature article.

Dr. Weber's career has been quite impressive in both breadth and productivity. The list of subjects and publications is quite formidable. If one focuses only on those publications on which he was first author and prime mover, one sees work involving ions, intense laser pulses and single hard photons on light targets. It is quite impressive that in his short career he has been the first author on 4 PRLs (and coauthor on many others) and 2 Nature papers. His list of invited talks at international conferences is impressive. He is clearly a team worker and a comfortable player in a completely international arena. There is always the difficulty in multi-author publications in knowing exactly who contributed what. I can testify that Dr. Weber has been truly a prime mover in all cases with which I am personally involved. He has served both as scientific driver and as practical consultant in the laboratory. He has shown his leadership abilities in both his work at Frankfurt and his guidance of the ALS collaboration.

There is absolutely no question in my mind that Dr. Weber is one of the bright lights in AMO experimental physics today. If we could attract him to Kansas State University as a faculty member, we would go after him in a millisecond. His breadth and productivity speak for themselves. He is a talented and ambitious scientist who is already making his mark in the AMO science community and, given the opportunity, will certainly continue to do so for many years.

Sincerely yours,

C. L. Cocke

C.L. Cocke
Director, J.R. Macdonald Laboratory
University Distinguished Professor

C.W. Röntgen Award of the University Gießen

Die Justus-Liebig-Universität Gießen

verleiht

Dr. Thorsten Weber

in Anerkennung seiner bahnbrechenden
Beiträge zur Aufklärung der Vielteilchendynamik in
fundamentalen atomaren und molekularen Systemen

den

RÖNTGEN-PREIS

für das Jahr 2005

Gießen, 25. November 2005

Der Präsident

Prof. Dr. Stefan Hormuth

Post-Doctoral Certificate

ALEXANDER VON HUMBOLDT-STIFTUNG

Herr Dr. Thorsten Weber

erhielt vom

16. Juni 2003 bis 15. Juni 2005

EIN FEODOR-LYNEN-FORSCHUNGSSTIPENDIUM
DER ALEXANDER VON HUMBOLDT-STIFTUNG.

Er führte in dieser Zeit wissenschaftliche Untersuchungen durch

am Lawrence Berkeley Laboratory, Chemical Sciences Division, der
University of California, Berkeley in Berkeley/CA und am
Department of Physics der Kansas State University in Manhattan/KS, USA.

Bonn-Bad Godesberg, den 16. Juni 2005

DER PRÄSIDENT

(PROFESSOR DR. WOLFGANG FRÜHWALD)

Doctoral Certificate

JOHANN·WOLFGANG·GOETHE·UNIVERSITÄT·FRANKFURT

Der Fachbereich Physik
der Johann Wolfgang Goethe-Universität

verleiht

Herrn

THORSTEN WEBER

aus Usingen

den Grad eines Doktors der Naturwissenschaften (Dr. phil. nat.)
im Fach Physik
nachdem er in ordnungsgemäßem Promotionsverfahren durch die Arbeit

"Untersuchung der verschränkten Bewegung freier Elektronenpaare emittiert aus Ein-und Zweizentren Coulomb-Potentialen in Photoabsorptionsprozessen"

und eine öffentliche Disputation
seine wissenschaftliche Befähigung erwiesen hat.
Die Promotionsleistung wurde mit
"ausgezeichnet"
beurteilt.
Frankfurt am Main, den 8. Mai 2003

Prof. Dr. H. Schmidt-Böcking, Dekan

Johann Wolfgang Goethe-Universität Frankfurt am Main Fachbereich Physik 1 Der Dekan

Diploma Certificate

JOHANN WOLFGANG GOETHE-UNIVERSITÄT FRANKFURT A. M.

JOHANN·WOLFGANG·GOETHE·UNIVERSITÄT·FRANKFURT·

DIPLOM

Thorsten Weber

geboren am 28.06.1972 in Usingen,

hat am 18.12.1998 die Diplom-Hauptprüfung in Physik
gemäß der am 13. 5. 1997 in Kraft getretenen Prüfungsordnung
an der Universität Frankfurt am Main bestanden.
Auf Grund überragender Leistungen wurde das Gesamturteil
„mit Auszeichnung bestanden" erteilt.

Gemäß Prüfungsordnung wird ihm hiermit der akademische Grad

Diplom-Physiker

verliehen.

Frankfurt am Main, den 15.1.1999

Der Dekan des Fachbereichs Physik

JOHANN·WOLFGANG·GOETHE·UNIVERSITÄT·FRANKFURT·
Fachbereich 13 Physik
2
Der Dekan

Diploma Report

(Page 1/2):

JOHANN WOLFGANG GOETHE-UNIVERSITÄT FRANKFURT A. M.

Diplom-Hauptprüfung für Studierende der Physik

PRÜFUNGSZEUGNIS

Der Studierende der Physik

Thorsten Weber

geboren am 28.06.1972 in Usingen

hat am 18.12.1998 die Diplom-Hauptprüfung in Physik gemäß der am 13. 5. 1997 in Kraft getretenen Prüfungsordnung an der Universität Frankfurt am Main mit den umseitig aufgeführten Ergebnissen bestanden.

Das Thema der Diplomarbeit lautet:

Impulstransfer in Proton-Heliumstößen

untersucht mit hochauflösender Rückstoßionenimpulsspektroskopie

Frankfurt am Main, den 15.1.1999

Der Vorsitzende des Prüfungsausschusses

Diploma - Report

(Page 2/2):

Prüfungsgebiete:	Bewertungen:	Prüfer:
1. Experimentelle Physik	sehr gut	Prof.Dr.Schmidt-Böcking
2. Theoretische Physik	sehr gut	Prof.Dr.Maruhn
3. Spezialgebiet:		
Kernphysik	sehr gut	Prof.Dr.Elze
4. Wahlfach:		
Physikalische Chemie	sehr gut	Prof.Dr.Schmidt

Die Diplomarbeit wurde mit sehr gut bewertet.

Gutachter: Prof.Dr.Schmidt-Böcking

Prof.Dr.Groeneveld

Die Gesamtnote ist: sehr gut

Pre-degree in Physics

(Page 1/2):

JOHANN WOLFGANG GOETHE-UNIVERSITÄT FRANKFURT A. M.

Diplom-Vorprüfung für Studierende der Physik

PRÜFUNGSZEUGNIS

Der Studierende der Physik

Thorsten Weber

geboren am 28.06.1972 in Usingen

hat sich am 11.11.1994 gemäß der am 31. 8. 1976 in Kraft getretenen Prüfungsordnung der Diplom-Vorprüfung für Physik an der Universität Frankfurt am Main unterzogen und die Prüfung mit

- gut -

bestanden.

Die erteilten Bewertungen sind umstehend aufgeführt.

Frankfurt am Main, den 17.11.1994

Der Vorsitzende des Prüfungsausschusses

JOHANN · WOLFGANG · GOETHE · UNIVERSITÄT · FRANKFURT · Diplom · Physik · Prüfungsausschuß

Th. Eire

Pre-degree in Physics

(Page 2/2):

Prüfungsgebiete:	Bewertungen:	Prüfer:
1. Experimentelle Physik	gut	Prof.Dr.Martienssen
2. Theoretische Physik	gut	Prof.Dr.Haug
3. Mathematik	gut	Prof.Dr.Constantinescu
4. Elektronik	sehr gut	Prof.Dr.Elze
Gesamtnote:	gut	

Operator - Certificate

INSTITUT FÜR KERNPHYSIK

DER JOHANN WOLFGANG GOETHE-UNIVERSITÄT FRANKFURT AM MAIN

D-60486 FRANKFURT AM MAIN
AUGUST-EULER-STRASSE 6
TELEFON (0 69) 798 - 2 42 38
TELEFAX (0 69) 798 - 2 42 12

Zeugnis

Herr Thorsten Weber, geb. am 28. 06. 1972, war als studentische Hilfskraft im Institut für Kernphysik der Johann Wolfgang Goethe-Universität in der Zeit vom Oktober 1996 bis März 1999 beschäftigt.

Herr Weber wurde an den 2.5 MV und 7 MV Van-de-Graaff-Beschleunigeranlagen als Operator ausgebildet. Selbstständig mussten die Anlagen nach vorgegebenen Spannungs- und Strahlstromwerten hochgefahren und bedient werden.

Nach Einführung in den Beschleunigerbetrieb, oblagen ihm in den Nacht-, Samstags- und Sonntagsschichten die Überwachung und Bedienung der Beschleuniger und deren Zusatzaggregaten.
Zu den letzteren gehören Hochvakuum- Pumpstände, Luft- und Stickstoffverflüssigeranlagen, Kühlkreislauf- Pressluft- und Klimaanlagen.

Herr Weber führte die ihm gestellten Aufgaben zuverlässig und gewissenhaft durch. Sein persönliches Verhalten war stets vorbildlich. Wir waren mit seinen Leistungen sehr zufrieden.

Wir wünschen ihm für die Zukunft alles Gute.

Frankfurt a.M., 31. Mai 2003

Prof. Dr. H. Ströbele
Geschäftsführender Direktor
des Instituts für Kernphysik

Ständige Wissenschaftliche Betriebseinheit des Fachbereichs Physik der Johann Wolfgang Goethe-Universität Frankfurt am Main • Geschäftsführender Direktor: Prof. Dr. H. Ströbele

Paramedic Certificate

Malteser Hilfsdienst

ZEUGNIS

ÜBER DIE PRÜFUNG ZUM RETTUNGSSANITÄTER

Thorsten Weber

geboren am 28.06.1972

hat an einem Rettungssanitäter-Lehrgang erfolgreich teilgenommen.

Die Prüfung erfolgte gemäß des vom Bund / Länderausschuß "Rettungswesen" am 20.9.1977 festgelegten Lernzielkatalogs. Die Grundsätze für eine Prüfungsordnung für das Personal im Rettungsdienst (Stand: 13.8.1985) wurden beachtet.

Thorsten Weber hat folgende Prüfungsnoten erhalten:

Schriftlicher Teil	1
Mündlicher Teil	2
Praktischer Teil	2

Herbstein, 29.02.92
Ort, Datum

MALTESER-HILFSDIENST (Siegel) ESSEN

(Unterschrift des Vorsitzenden des Prüfungsausschusses)

(Unterschrift des Fachprüfers)

(Unterschrift des Fachprüfers)

Nr. 273-02-92

Certificate of having passed the Abitur

(Page 1/4):

Christian-Wirth-Schule · Usingen

GYMNASIUM

ZEUGNIS DER

ALLGEMEINEN HOCHSCHULREIFE

~~Frau~~/ Herr Thorsten Weber

ev. Konf.

geboren am 28. Juni 19 72 in Usingen/Ts.

wohnhaft in 6392 Neu-Anspach 1

Buchenweg 1

hat sich nach dem Besuch der gymnasialen Oberstufe der Abiturprüfung unterzogen.

Certificate of having passed the Abitur

(Page 2/4):

Name des Schülers Thorsten Weber

I. Leistungen in der Qualifikationsphase

Fach[4]	Bewertung[2] Punktzahlen der einzelnen Kurse in einfacher Wertung			
	1. Halbjahr	2. Halbjahr	3. Halbjahr	4. Halbjahr
Sprachlich-literarisch-künstlerisches Aufgabenfeld				
Deutsch	10	11	10	10
Englisch	08	08	(07)	(07)
Französisch				
Lateinisch				
Kunst	14	14	12	13
Musik				
Gesellschaftswissenschaftliches Aufgabenfeld				
Gemeinschaftskunde	09	10	09	(08)
Geschichte	12	13	09	10
ev. Religionslehre	(06)	(08)	(07)	(08)
Ethik				
Mathematisch-naturwissenschaftlich-technisches Aufgabenfeld				
Mathematik (LF)	14	11	13	12
Physik (LF)	12	10	08	06
Chemie	(07)	08	09	(08)
Biologie				
Sport	12	12	12	(10)

Für die Umsetzung der Punkte in Noten gilt:

Punkte	15 14 13	12 11 10	9 8 7	6 5 4	3 2 1	0
Noten	sehr gut	gut	befriedigend	ausreichend	mangelhaft	ungenügend
	je nach Notentendenz					

[1] Leistungsfächer sind mit dem Zusatz „(LF)" gekennzeichnet.
[2] Punktzahlen, die nicht in der Gesamtqualifikation berücksichtigt wurden, sind in Klammern gesetzt.
(z. B. verpflichtend zu besuchende Kurse oder weitere Ergebnisse auf Wunsch des Schülers).

Certificate of having passed the Abitur

(Page 3/4):

Name des Schülers Thorsten Weber

II. Leistungen in der Abiturprüfung

Prüfungsfach			Prüfungsergebnis in einfacher Wertung schriftlich	mündlich
1. Leistungsfach:	Mathematik		11	–
2. Leistungsfach:	Physik		12	–
3. Prüfungsfach:	Geschichte		10	–
4. Prüfungsfach:	Kunst	Im Fach Sport[1], praktischer Teil:	–	12

[1] In anderen Fächern dieses Feld streichen.

III. Berechnung der Gesamtqualifikation und der Durchschnittsnote

Punktsumme aus 20 Grundkursen in einfacher Wertung:	212	mindestens 100, höchstens 300 Punkte
Punktsumme aus 6 Leistungskursen in dreifacher Wertung und den beiden Leistungskursen des Abschlußhalbjahres in einfacher Wertung:	222	mindestens 100, höchstens 300 Punkte
Punktsumme aus den Prüfungen in vierfacher Wertung und den Kursen der Prüfungsfächer im Abschlußhalbjahr in einfacher Wertung:	221	mindestens 100, höchstens 300 Punkte
Gesamtpunktzahl:	655	mindestens 300, höchstens 900 Punkte
Durchschnittsnote:	2,0	

Dem Zeugnis liegen zugrunde:

Die „Vereinbarung zur Neugestaltung der gymnasialen Oberstufe in der Sekundarstufe II" (Beschluß der Kultusministerkonferenz vom 7. 7. 1972),

die Vereinbarung über die „Einheitliche Durchführung der Vereinbarung zur Neugestaltung der gymnasialen Oberstufe" (Beschluß der KMK vom 2. 6. 1977, in der jeweils geltenden Fassung),

die „Vereinbarung über die Abiturprüfung der neugestalteten gymnasialen Oberstufe in der Sekundarstufe II (gemäß Vereinbarung der KMK vom 7. 7. 1972)" (Beschluß der KMK vom 13. 12. 1973, in der jeweils geltenden Fassung),

die „Verordnung über die gymnasiale Oberstufe und die Abiturprüfung vom 9. 2. 1983" (ABl. S. 54), in der jeweils geltenden Fassung.

Certificate of having passed the Abitur

(Page 4/4):

Name des Schülers Thorsten Weber

IV. Fremdsprachen

Fach (Pflicht- und Wahlpflichtunterricht)	Jahrgangsstufe von bis
Englisch	5 - 13
Französisch	7 - 11
Latein	—

Fach (Arbeitsgemeinschaften und wahlfreie Unterrichtsveranstaltungen)	Jahrgangsstufe von bis
Physik AG	12/I - 13/I
Informatik AG	11
—	—

~~Dieses Zeugnis~~ schließt ein

- das Große Latinum / das Kleine ~~Latinum / das Graecum~~,
- den Nachweis von Lateinkenntnissen (Latinum) / und von Griechischkenntnissen ~~(Graecum)~~ gemäß der Vereinbarung über Kenntnisse in Latein und in Griechisch (Beschluß der Kultusministerkonferenz vom 26. 10. 1979) und ~~der Verordnung~~ über den Erwerb und den Nachweis von Kenntnissen in Lateinisch und Griechisch (Latinum und Graecum) vom 3. 9. 1981 (ABl. S. 639) in der jeweils geltenden Fassung.

V. Bemerkungen

VI. ~~Frau~~ / Herr Thorsten Weber

hat die Abiturprüfung bestanden und damit die Befähigung zum Studium an einer Hochschule in der Bundesrepublik Deutschland einschließlich Berlin (West) erworben.

Usingen/Ts., den 10. Juni 1991

Vorsitzende(r) des Prüfungsausschusses ,OStD

Christian-Wirth-Schule-Usingen (Siegel)

~~Leiter(in) der Schule~~ / Studienleiter(~~in~~) ,StD

Dr. Thorsten Weber

International Stays

Research Projects:

August 96	2 weeks	COLTRIMS-experiment at LEAR (atomic physics), CERN, ***Geneva (Switzerland)***
May 97	2 weeks	Research project in cooperation with GSI/Darmstadt, GANIL, ***Caen (France)***
July 97	7 weeks	Set-up and test of a COLTRIMS-apparatus on behalf of the RoentDek company (www.RoentDek.com), ARGONNE, ***Chicago (USA)***
September 97	1 week	Summer school, topic: Neutrino physics, ***Erice (Italy)***
August 98	3 weeks	Experiment at the synchrotron for PhD project (first part), ALS, ***Berkeley (USA)***
February 99	3 weeks	Experiment at the synchrotron for PhD project (second part)/installation of a detector prototype on behalf of the RoentDek company (www.RoentDek.com), ALS, ***Berkeley (USA)***
June 99	8 weeks	Research project in cooperation with the femto second laser lab of the Philips-University, ***Marburg (Germany)***
December 99	4 weeks	Atomic physics with conventional electron spectroscopy within the framework of a BMBF-project, CAB, ***Bariloche (Argentina)***
February 00	3 weeks	COLTRIMS-experiment (molecular physics), ALS, ***Berkeley (USA)***
April 00	4 weeks	Set-up and test of a COLTRIMS-apparatus as well as assistance for an experiment on behalf of the RoentDek company (www.RoentDek.com) at SPring8, ***Harima (Japan)***
July 00	3 weeks	COLTRIMS-experiment (molecular physics)/test of a detector prototype on behalf of the RoentDek company (www.RoentDek.com), ALS, ***Berkeley (USA)***
February 01	4 weeks	COLTRIMS-experiment (atomic- und molecular physics), ALS, ***Berkeley (USA)***
September 01	1 week	Imaging test-measurement on solid states (support of a PhD project), BESSY II, ***Berlin (Germany)***
January 02	1 week	COLTRIMS-experiment (atomic physics: support of a PhD project), BESSY II, ***Berlin (Germany)***

Dr. Thorsten Weber

Continuation Research Projects:

February 02	4 weeks	COLTRIMS-experiment (molecular physics and test of new amplifiers on behalf of the RoentDek company, www.RoentDek.com), ALS, ***Berkeley (USA)***
June 02	2 weeks	Imaging measurement on solid states (support of a PhD project), HASYLAB, ***Hamburg (Germany)***
February 03	3 weeks	Research project in cooperation with the femto second laser lab of the NRC, ***Ottawa (Canada)***
August 03	2 weeks	First part of the Humboldt research project: COLTRIMS-experiment (atomic- and molecular physics), ALS, ***Berkeley (USA)***
March 04	2 weeks	Second part of the Humboldt research project (support of a Diploma study): COLTRIMS-experiment (atomic- and molecular physics), ALS, ***Berkeley (USA)***
August 04	2 weeks	Third part of the Humboldt research project (support of a Diploma study): COLTRIMS-experiment (atomic- and molecular physics), ALS, ***Berkeley (USA)***
March 05	2 weeks	Fourth part of the Humboldt research project (support of a Diploma study): COLTRIMS-experiment (molecular physics), ALS, ***Berkeley (USA)***
August 05	3 weeks	COLTRIMS-experiment (molecular physics and electron momentum spectroscopy of a high temperature superconductor), ALS, ***Berkeley (USA)***
October 05	2 weeks	Electron spectroscopy of metall clusters with FEL radiaton in a collaboration of the University Rostock, Würzburg, Berlin and Frankfurt, DESY, ***Hamburg (Germany)***
December 05	2 weeks	First COLTRIMS-experiment (atomic and molecular physics) with FEL radiation in a collaboration of the MPI-Heidelberg and the University of Frankfurt, DESY, ***Hamburg (Germany)***
March 06	2 weeks	COLTRIMS-experiment (molecular phyiscis: supervision of a Diploma project), ALS, ***Berkeley (USA)***
June 06	4 weeks	COLTRIMS-Experiment with nobel gar dimers (cluster physics: supervision of a PhD project) invesitgated with X-rays from DORIS in collaboration with the University of Frankfurt, DESY, ***Hamburg (Germany)***

Dr. Thorsten Weber

Conferences:

97/98/99	1 week each	EAS-meeting, ***Riezlern (Austria)***
97/98/99/ 2003/06	1 week each	DPG-meeting, ***Mainz, Konstanz, Heidelberg, Hannover, Frankfurt (Germany)***
August 99	1 week	X-99, ***Chicago (USA)***
May 00	1 week	Many Part. Dyn. In Coulomb-Sys., ***Bad-Honnef (Germany)***
November 00	1 week	CAARI, ***Denton (USA)***
April 01	1 week	ECAMP, ***Berlin (Germany)***
May 01	1 week	DAMOP XXII, ***London (Canada)***
July 01	1 week	ICPEAC XX III, ***Santa Fe (USA)***
July01	1 week	ISIAC, ***Ensenada (Mexico)***
July02	1 week	EPII, ***Metz (France)***
May 03	1 week	PETRA III: Concepts for beamlines at the future high energy synchrotron of the HASYLAB, ***Hamburg (Germany)***
July 05	1 week	ICPEAC XX IV, ***Rosario (Argentina)***
June 07	1 week	DAMOP 38th, ***Calgary (Canada)***
July 07	1 week	ICPEAC XX V, ***Heidelberg (Germany)***
August 07	1 week	International Symposium on (e,2e), Double Photoionization and Related Topics, ***Koenigstein (Germany)***
September 07	1 week	Research Meeting of the Atomic, Molecular and Optical Sciences (AMOS) Program, ***Airlie (USA)***

(in chronologic order)

Theses

DIPLOMA THESIS:

Thorsten Weber, *„Impulstransfer in Proton-Heliumstößen untersucht mit hochauflösender Rückstoßionenimpulsspektroskopie“* (Momentum Transfer in Proton-Helium collisions investigated with high resolution Recoil-ion Momentum Spectroscopy),
Diploma Thesis at the Institut für Kernphysik Frankfurt of the Johann-Wolfgang-Goethe University Frankfurt a.M./Germany, (1999)
http://univis.uni-frankfurt.de
http://hsb.uni-frankfurt.de/web/publications/diplom%5Fdoktor/

DOCTORAL THESIS:

Thorsten Weber, *„Untersuchung der verschränkten Bewegung freier Elektronenpaare emittiert aus Ein- und Zweizentren Coulomb-Potentialen in Photoabsorptionsprozessen“ (Investigation of the entangled Motion of free Electron Pairs emitted from Single- and Double Well Coulomb Potentials in Photoionization Processes),*
Dissertation at the Institut für Kernphysik Frankfurt of the Johann-Wolfgang-Goethe University Frankfurt a.M./Germany, (2003)
http://univis.uni-frankfurt.de
http://hsb.uni-frankfurt.de/web/publications/diplom%5Fdoktor/

Papers and articles in books

Summary:

Journal	Number of	First Author	Front-Page
Nature	2	2	
Science	1 (+1 submitted)		
Phys. Rev. Lett.	16 (+ 3 submitted)	4	2
Journal of Physics	11	3	
other	28	2	

With a focus on: Ion-atom and electron-atom collisions, single and double photoionization of light atoms (e.g. He, Ar, Ne) and molecules (e.g. H_2, N_2, CO) with synchrotron radiation and femtosecond laser pulses, study of ionization mechanisms, dynamics of many particle systems, imaging systems and multihit detection with position sensitive detectors

[1]	R. Dörner, ..., **T. Weber** et al.	FIAC - Debrecen 1996 *Nucl. Instr. Meth.,* **B 124**, (1997)
[2]	B. Bapat, …, **Th. Weber** et al.	*GSI-Preprint-98-65,* (1998) *Physica Scripta*, **T808**, (1999), 351 – 353
[3]	B. Krässig, …, **Th. Weber** et al.	*Phys. Rev. Lett.*, **83**, (1999), 53 – 56
[4]	B. Bapat, …,**Th. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys.*, **32**, (1999), 1859 – 1872
[5]	Kh. Khayyat, **Th. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys.*, **32**, (1999), Letter to the Editor, L73 – L79
[6]	L. Spielberger, …, **Th. Weber** et al.	*Phys. Rev. A*, **59**, (1999), 371 – 379
[7]	H. Schmidt-Böcking, …, **Th. Weber** et al.	*Australian Journal of Physics*, **52**, (1999), 523 – 535
[8]	**Th. Weber** et al.	*Phys. Rev. Lett.*, **84**, (2000), 443 – 446
[9]	**Th. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys.*, **33**, (2000), L127 – L133
[10]	**Th. Weber** et al.	*Nature,* Vol. **405**, 8 June, (2000), 658
[11]	**Th. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys.*, **33**, (2000), 3331 – 3344
[12]	**Th. Weber** et al.	*Physics News in 2000 (APS News Supplement),* (2000), 2
[13]	R. Dörner, ..., **Th. Weber** et al.	*Scientific American, Online Version 'www.sciam.com'*, (24 Januar 2000), Titelstory, Ed.: Christine Leutwyler
[14]	**Th. Weber** et al.	*Phys. Rev. Lett.*, **86**, (2001), 224 – 227
[15]	V. Mergel, …, **T. Weber** et al.	*Phys. Rev. Lett.*, **86**, (2001), 2257 – 2260
[16]	Y. Muramatsu, ..., **T. Weber** et al.	*Surface Rev. Lett.,* **9**, (2002), 93 – 97
[17]	**Th. Weber** et al.	*Optics Express,* **8**, (2001), 368 – 376
[18]	A. Landers, **Th. Weber** et al.	*Phys. Rev. Lett.,* **86**, (2001), 013002-1
[19]	**Th. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys.*, **34**, (2001), 3669
[20]	M. Weckenbrock, …, **T. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys*, **34**, (2001), L449 – L455
[21]	Y. Muramatsu, ..., **T. Weber** et al.	*Phys. Rev. Lett.,* **88**, (2002), 133002-1
[22]	R. Dörner, …, **T. Weber** et al.	*From Atoms to Molecules* Ed.: V.P. Shevelko and J. Ullrich, Springer Verlag, (2002)

[23]	T. Jahnke, **Th. Weber** et al.	*Phys. Rev. Lett.*, **88**, (2002), 073002-1, **front page**
[24]	R. Dörner, **Th. Weber** et al.	*Advances in Atomic and Molecular Physics 2002,* Volume **48** Ed.: B. Bederson and H. Walther, Academic Press, Amsterdam, (2002)
[25]	F. Afaneh, …, **Th. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys.*, **35**, (2002), Letter to the Editor, L229 – L235
[26]	A. Knapp, …, **Th. Weber** et al.	*Phys. Rev. Lett.*, **89**, (2002), 033004-1
[27]	O. Jagutzki, …, **Th. Weber** et al.	*IEEE Transactions on Nuclear Science,* **49**, (2002), 2477 - 2483
[28]	H. Schmidt-Böcking, …, **Th. Weber** et al.	*Europhys. Rev. Lett.,* **62**, (2002), 477-483
[29]	**Th. Weber** et al.	*Phys. Rev. Lett.*, **90**, (2002), 153003-1
[30]	A. Knapp, ..., **Th. Weber** et al.	*J. Phys. B: At. Mol. Opt. Phys.*, **235**, (2002), L521 – L526
[31]	H. Schmidt-Böcking, …, **Th. Weber** et al.	*Many-Particle Quantum Dynamics in Atomic und Molecular Fragmentation,* Springer Series on Atomic, Optical, and Plasma Physics **35**, Ed.: V.P. Shevelko and J. Ullrich, Springer Verlag, (2003), p. 353-377
[32]	T. Osipov, …, **T. Weber** et al.	*Phys. Rev. Lett.*, **90**, (2003), 233002-1
[33]	H. Schmidt-Böcking, …, **T. Weber** et al.	*Radiation Physics and Chemistry*, **68**, (2003), 41 – 50
[34]	**Th. Weber** et al.	*Phys. Rev. Lett.*, **92**, (2004), 163001-1
[35]	T. Jalowy, **Th. Weber** et al.	*International Journal of Mass Spectrometry,* **231***,* (2004), 51-58
[36]	Reinhard Dörner, ..., **Thorsten Weber** et al.	*Radiation Physics and Chemistry*, **70**, (2004), 191–206
[37]	M. Hattass and T. Jalowy, …, **T. Weber** et al.	*Review of Scientific Instruments*, **75**, No. 7, (2004), 2373 – 2378
[38]	H. Schmidt-Boecking, …, **Th. Weber** et al.	*Nucl. Ph. A*, **737**, (2004), p. 306 – 313
[39]	M. Weckenbrock, …, **Th. Weber** et al.	*Phys. Rev. Lett.*, **92**, (2004), 213002-1, **front page**
[40]	L.Ph.H. Schmidt, …, **Th. Weber** et al.	*Physica Scripta*, **Vol. T110**, (2004), 379 – 383
[41]	A. Czasch,…, **Th. Weber** et al.	*Physica Scripta*, **Vol. T110**, (2004), 141 – 143
[42]	T. Jahnke, **Th. Weber** et al.	*J. of Elec. Spec. and Rel. Phen.*, **141**, (2004), 229 – 238
[43]	**Th. Weber** et al.	*Nature*, **Vol. 431**, (2004), 437 – 440

[44] N. Saito, …, **T. Weber** et al. *J. of Elec. Spec. and Rel. Phen.*, **141**, (2004), 183 – 193

[45] D. Zeidler, ..., **Th. Weber** et al. *Photonics North 2004: Photonic Applications in Telecommunications, Sensors, Software, and Lasers,* edited by J. Armitage, R. Lessard, G. Lampropoulos, Proc. of SPIE Vol. **5579** (SPIE, Bellingham, WA, 2004), page 708 ff

[46] A. Knapp, …, **Th. Weber** et al. *J. Phys. B: At. Mol. Opt. Phys.*, **38**, (2005), 615 – 633

[47] A. Knapp, …, **Th. Weber** et al. *J. Phys. B: At. Mol. Opt. Phys.*, **38**, (2005), 635 – 643

[48] A. Knapp, …, **Th. Weber** et al. *J. Phys. B: At. Mol. Opt. Phys.*, **38**, (2005), 645 – 657

[49] A. Czasch, …, **Th. Weber** et al. *Phys. Lett.* ***A***, 347, (2005), 95 – 102

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