Last updated: 20 July 2011

Checklist for Beamtime:

Administration:

- Send out email with information about the scientific project and the beamtime user guide (http://amo-csd.lbl.gov/downloads/AttendingALSBeamtime.pdf)
- Update the ALS Experimenter Safety Sheet (ESS) and give it to David Malone or Doug Taube and ask for any new safety requirements (http://amo-csd.lbl.gov/downloads/ALS_User_Experiment_Form.pdf and http://amo-csd.lbl.gov/downloads/ALS_ESS_Changes.pdf)
- Get On-The-Job training forms and Safety Watchlist ready for participating guests (http://amo-csd.lbl.gov/downloads/COLTRIMS_OJT.pdf http://amo-csd.lbl.gov/downloads/SafetyWatchList.pdf)

COLTRIMS Chamber:

- Center and fix chamber and differential chamber on frame.
- If necessary (i.e. in case chamber has a recoil ion extension mounted) dismount big chamber turbo pump so that setup fits in the elevator.
- Check crane and slings inspection status; get in contact with Mike Wisherop if we need a safety check.
- Bring chamber down to its feet.
- Dismount fore vacuum hoses at 70l turbo and jet turbo.
- Check on Helmholtz Powersupply stored in Building 7 and the coils in our special hiding place

Beamline:

- Power poll at beamline (or equivalent). We need 2 (one for the vacuum pumps and one for the electronics). We also need a 380VAC extension cord for the Helmholtz Coils powersupply: get in contact with the BL scientist and Steve Cooper
- Alignment: get scope, xy base plate and tripod (get a stand which goes very low) from survey group plus a fiber lamp; check out beam height and angle
- Beamline preparation: Moving of the beamline bellow to the appropriate position by the BL scientist
- Tell beamline scientist(s) to move their chambers and setups (incl. furniture) out of the way
- Have the special aluminum block available to heighten the chamber crane at the BL

- Get cable bridges for big power lines and gas lines: Get in contact with BL scientist
- Get gas cabinet and copper lines (ask Doug Taube and Steve Klingler for help), and plastic hoses (+ Ts) for exhaust (ask Frank Zucca for help if needed)
- Check cooling water supplies and hoses at BL (ask Jason Borsos for help). In best case we have three parallel lines (Helmholtz Coil 1, Coil 2, and Jet Turbo Pump)

Personal Protective Equipment:

- Check inventory of the dedicated suitcase (gloves, earplugs, earmuffs, tape, glasses…)
- Cryo gloves and shield
- Get plastic gloves from ALS shop
- Look out for cones and warning signs
- Look out for cable bridges

Vacuum and Gases:

- Gaskets and O-rings (2¾ , 4, 6, 8in from ALS stock room)
- Kwikflange: Crosses, Elbows, Adapters, O-rings (ALS stock room)
- Vacuum grease and „Kit“
- Indium
- Helium & Leak detector (Frank Zucca and Steve Klingler)
- Gas bottles and rack (or stand); straps to tie down and secure the bottles. Bolts to tie down the gas cabinet (Monroe Thomas). Contact Doug Taube in case of toxic gases (like CO which need special flow restricted gas cylinders).
- Gas regulators
- Copper and stainless tubing (refrig. clean and dry tubing) + ferrels
- Plastic hose for venting with N_2

Cleaning and Insulation:

- Foils: Aluminum, Capton, Mylar, Plastics
- Teflon and Ceramic pieces (Andrew Mei in building 77)
- (glass and mirrors: Daniel Lee in building 77)
- Tissues, Gloves (ALS stock room), Methanol, Acetone, Isopropanol (ALS chem. lab)
- Dry Air in the can (ALS stock room)
- Kitchen role or paper towel (toilet paper)

Electrical:

- Tape: Electrical Tapes, Tape to attach the heating tapes (ALS stock room), Duct Tape to fix cables or gas lines on the floor
- Soldering Iron, Soldering Gun, flux, sponge
- Shrink Wrap

- Fans
- Voltmeters and batteries
- Multiple outlets and extension cords. Surge protectors for electronics.
- Decoupling Boxes for MCP's and Anode's
- Cables: Ottmar-12-SHV-Stecker (the whip), SHV-SHV-cables, Lemo cables ,BNC, MHV, SHV + Adapters
- Heating tapes and Variags
- Camera and tripod
- COLTRIMS grounding manifold

Tools and Spare Parts:

- Meshes
- Copper Wire (thin and thick)
- Glass and Phosphor/Scintillator
- Tools: Wrenches, screwdrivers, pliers and special (tiny) tools, Tie wrap
- Rope and Thread
- Hoses: Water and Vacuum (Kwikflange)
- Torr Seal and Epoxy
- Flashlights (+batteries) and fiber lights (survey group in building 7c)
- Make sure the chamber crane is certified for this run (Mike Wisherop)
- Ceramic rods and spacers for the spectrometer
- Ceramic parts, Teflon, and Capton foil for insulation

Computer:

- check hard drives: Break old RAID pairs and get new harddrives and set up new RAID pairs
- hunt for hubs and Ethernet cables
- get hard drives for backing up data
- USB stick for transferring data
- update the compilers and data acquisition program
- get latest virus software, run a scan
- have an old analysis project on hand
- CD's and/or DVD's

Outside Collaborators:

- 2 Constant Fraction Modules ? (Frankfurt)
- 2 fast amplifiers ? (Frankfurt)
- 2 linear fans ? (Frankfurt)
- Acqiris system ? (Frankfurt)
- Meshes (Frankfurt)
- (spare) anode and/or MCP's (Frankfurt)
- Special detector screws and parts (Frankfurt)
- Bring portable hard drives or DVDs
- Logbook from last beamtime(s)
- Latest software (compiler, COBOLD, Root, analysis routines)