

Welcome to the Advanced Photon Source! This is the Sector-Specific Orientation for users of Microscopy Group beam lines, in particular for 2ID-B, 2ID-D, 2ID-E & 8BM-B. Please review the material below. If you have any questions, please ask.

As a part of the orientation, you will also be trained on proper procedures for searching and securing the experimental hutches. This will serve as the 'hands-on' portion of the orientation. After finishing both parts of the training, you will be eligible for access only to the specific areas for which you have received orientation.

Facilities

- Bench tops as well as the fume hood in 431/C030 are shared lab spaces which are available to users while they have beam time. It is mandatory that all work done in these areas be described in an approved ESAF
- Users are not typically permitted access to the Front End Optics Enclosures (FOEs). See beamline staff for access.

Laboratory Practices

- Before leaving a laboratory area, wash hands thoroughly.
- All containers should be tightly closed except when a material is being added or removed.
- When not in use, razor blades and other sharps must be stored in labeled containers.
- Workspaces should be neat, clean, uncrowded, and uncluttered.
- Access to exits, emergency equipment, and utility controls must not be blocked.
- Eye protection is required in areas posted "Eye Protection Required" and as designated in any ESAFs or when using power tools or soldering irons.

Eating/Drinking

- Do not drink water from laboratory taps; domestic water is available at drinking fountains, in restrooms, and in break rooms.
- Eating and drinking are prohibited inside the FOEs, mini enclosures, and experimental stations, as well as in the laboratories.
- Alcoholic beverages are prohibited. Snack foods and non-alcoholic beverages are allowed at the experimental control stations EXCEPT for areas where chemical hazards are present.

Emergencies

- Designated tornado-shelter areas are rest room and locker facilities only. It is mandatory that all users respond appropriately to all Tornado Warnings
- Persons who are ill or injured should not be transported in personal vehicles - call 911.
- Call 911 from any ANL phone or (630) 252-1911 from non-ANL phones.

Stop Work Authority

- Personnel and users have the authority and the responsibility to stop any activity at the APS that, in their judgment, poses a clear and present threat to health, safety, or the environment.
- No experiment can be considered more important than safety!

Shielding/PSS Components

- NO shielding or personnel safety system (including labyrinths) shall be modified, moved/removed, or disabled without following the APS-mandated procedures.
- DO NOT BREAK THE SEAL AND OPEN IT YOURSELF!

ESAF

- All proposed activities at our Sectors are subject to a safety analysis by the APS and Sector staff.
- An experiment will NOT be allowed if an up-to-date Experiment Safety Approval Form is not completed and posted.



Electrical Safety

- Use of extension cords should be minimized; extension cords may not be connected in series; when in use, extension cords should be secured to the floor to avoid creating a trip hazard.
- Do not attempt any electrical work if you are not qualified and authorized.
- Non-commercial equipment, including modified commercially manufactured equipment, must be made available for inspection, testing, and certification by ANL prior to use.

Compressed Gas Cylinder Safety

- Gas cylinders must be restrained and may not be left freestanding.
- Cylinders must be stored and transported with valve-cover cap screwed firmly in place.
- Compressed Gas Cylinders should not be used or stored on carts and should never be moved or transported with a regulator attached.
- Where gases of different chemical-reactivity types are stored in the same general location, cylinders should be grouped by type, with incompatible types segregated appropriately.

Cryogenic Safety

- Safety glasses or goggles and loose-fitting insulating gloves must be worn at all times when handling cryogenic liquids or when in the proximity of someone handling cryogenic liquids.
- A full-face shield should be worn when splashing or spraying of cryogenic liquids may create a significant hazard.
- SANDALS OR OPEN TOP SHOES ARE NOT ALLOWED ANYWHERE in the proximity of cryogenic liquids.

Radiological Safety

- Thermoluminescent dosimeters (TLDs) are required for users who have radioactive samples.
- TLDs may also be requested at any time.
- TLDs are to remain on-site and should be placed in the dosimeter rack for readouts.
- If you plan to use radioactive sealed sources, contact the Sector 2 Safety Officer prior to your experiment.