

MUCAT Independent Investigator Access Policy

1. Access Policy

The objective of the MUCAT Independent Investigator (II) program is to encourage the use of synchrotron radiation by providing opportunities for the use of the Advanced Photon Source (APS) by novice and experienced researchers who are not currently CAT members. A proposal process in which MUCAT makes the ultimate judgment of the scientific merit and feasibility of the proposals determines access for II's. Subject to the receipt of qualified II proposals, MUCAT will allocate 25% of the user beam time scheduled by the APS on instruments in operation to Independent Investigators.

2. Proposal Procedures

2.1. Proposal Preparation and Submission

All proposals must be submitted using the web-based submission process established by the APS User Office (UO). The appropriate starting URL is <http://www.aps.anl.gov/ii>. MUCAT participates in the Central Review Process (CRP) administered by the UO. Proposal review cycles and deadlines will be those established by the UO. "Fast-Access" proposals, so identified by checking that box on the II proposal form web page, will not go through the CRP, but will be reviewed as described in Sec. 2.4 below.

As of the writing of this policy, the APS recognizes three categories of II proposals: individual, program, and fast-access. Individual proposals are valid for only one scheduling period. Program proposals are valid for two full years. Multiple requests for beam time can be made against program proposals without further review, but not against individual proposals. II's should include all appropriate setup time in their request. The II is expected to setup, perform the experiment, and remove the equipment within the allotted time. The II is also expected to communicate all of the safety and experimental requirements (e.g. detectors, lab space, chemical and material hazards) in the II proposal.

2.2. Proposal Logging and Screening

The proposal may only be saved, and thus submitted to the UO, if all of the required fields on the II proposal form web page have been completed. Once submitted, the (non-Fast-Access) proposal will be guided through the CRP by the UO. MUCAT personnel will be notified by electronic mail of receipt of the proposal and, simultaneously with the CRP review, begin to screen it for beamline-specific safety problems and technical feasibility.

2.3. Proposal Review

As stated above, MUCAT will use the review process established by the UO, except for Fast-Access proposals (see Sec. 2.4 below). Under this program, the UO will send the proposal out for review by suitable referees, and forward the reviews and ratings to MUCAT. Additional MUCAT review of the proposal and allocation of time will be handled in the same manner as for CAT member proposals. The following criteria will be used in the decision:

- Scientific merit of the work
- Qualifications of the investigators
- Need for APS- and MUCAT-specific capabilities
- The feasibility of conducting the proposed experiments on the specified beamline(s)
- Benefit to the APS Community for conducting the experiments (e.g., providing access to train users, increasing educational base, etc.)

MUCAT will decide whether to accept or reject the proposal and will report its decision promptly using the APS electronic submission and review system. If the proposal is rejected, MUCAT will include an explanation. If the proposal is accepted, MUCAT will notify the II.

2.4 Fast-Access Proposals

The MUCAT Fast-Access system may be used for one-time exploratory proposals of significant merit where the lead-time required by the normal review system presents an unacceptable burden. Fast-Access proposals must be identified as such at the time of submission, and will be passed by the UO directly to MUCAT, bypassing the CRP. MUCAT will review these proposals internally. Approved proposals will be scheduled as soon as possible. No more than 12 shifts may be awarded under this Fast-Access system per II per year, and any Fast-Access allocations will be identified and briefly justified in MUCAT's subsequent report to APS (see Sec. 6).

2.5 Options for Rejected Proposals

If a proposal is rejected, the UO will send the author notification along with the MUCAT explanation. The author may modify and resubmit the proposal, or withdraw it. If the author takes issue with the way the review process was administered, he or she may communicate these concerns in writing to the APS; if the circumstances warrant it, the APS may direct the reconsideration of MUCAT's decision. The MUCAT Executive Committee will consider such cases.

2.6 Required Pre-run II Actions

Once a proposal has been approved, the II must:

- (a) Ensure that the II's institution has signed an APS User Agreement
- (b) Obtain any necessary visas in addition to APS approval for participation of any foreign nationals--for current regulations, follow the appropriate links from the APS home page at <http://www.aps.anl.gov/>
- (c) Review the APS Experiment Safety Approval Form (ESAF), automatically generated by the CAT from the information provided on the proposal form, and communicate any errors or omissions to the CAT
- (d) Establish an APS user account giving the MUCAT Director or designee spending authority and with a minimum balance of \$1000 to allow stockroom purchases for their experiment and to ensure that equipment and samples shipped to MUCAT can be promptly returned to the II's institution
- (e) Communicate any special needs and any other technical issues with the designated MUCAT contact--last minute requests will not be honored

It is the II's responsibility to allow enough lead-time for all paperwork to be completed before the experiment begins.

3. Facilities, Equipment, and Technical Support Provided by MUCAT

3.1. Facilities and Equipment

MUCAT will make available to II's a beamline which is in proper working condition and able to deliver photons having the radiation characteristics required for the generic class of experiments for which the CAT has received approval to operate. However, no warranty, expressed or implied, is given to the II as to the functioning of equipment or quality of the beam. MUCAT will maintain a description of its beam line capabilities and a list of equipment that the II may use. Other equipment may be available on a collaborative basis. The II should consult the relevant MUCAT scientist for more information. II's who damage CAT owned equipment will be held liable for the damage.

MUCAT will also permit the II to use existing CAT laboratory facilities in the LOM for tasks that cannot reasonably be done off-site, such as final preparation of short-lived samples. However, this access must be requested at the time that the proposal is reviewed since LOM facilities and resources must also be scheduled. The MUCAT Safety Coordinator must review all proposed operations in the MUCAT sector. No operation may be undertaken in the sector without the prior approval of the MUCAT Safety Coordinator.

Storage facilities are not available to II's. II's must remove all equipment, samples and data from the MUCAT facilities immediately after the completion of their experiment in a manner consistent with the MUCAT transportation policy.

If, while participating in activities in a sector operated by MUCAT, an II engages in behavior that the CAT finds unacceptable (for example, behavior that compromises the safety of beamline operations), MUCAT may make a formal written request to the APS to be exempted from considering future proposals from that II. If a member of the MUCAT staff observes the II performing activities outside of the scope of the approved experiment and/or if II activity compromises personnel or equipment safety, the staff member may immediately suspend the II's operations pending a review by the MUCAT Director or designee.

3.2. Technical Support

MUCAT will provide each II with basic technical training required to use the beamline and any ancillary equipment to which that II has been granted access. II's are encouraged to collaborate with MUCAT scientific members to improve the probability of a successful experiment. The technical training may be combined with the sector-specific safety orientation discussed in Section 4.1 below. If the II states in writing that prior experience makes technical training on a particular piece of equipment unnecessary, MUCAT may waive that training segment at its discretion. If an II requests and is granted access to unique or expensive equipment, MUCAT may, at its discretion, require the II to use it in collaboration with a CAT member.

During scheduled II access periods, MUCAT will give the II's the same level of technical support that it provides to its members.

4. Safety

4.1. Sector-specific Safety Orientation for II's

All persons using APS beamlines are required to complete the corresponding sector-specific Environment, Safety & Health Orientation Program, which is administered by the host CAT.

4.2. Hazard Control for Individual Experiments

The APS requires an approved ESAF for each experiment. All chemicals, gases, equipment, samples, and wastes to be generated in the experiment shall be identified on the form. The APS also requires that all experimenters be listed on the ESAF. The APS and MUCAT use the form to identify potential hazards so that a proactive strategy for mitigating these hazards can be developed. For II's, MUCAT will automatically generate these forms from the information provided on the II proposal form. The CAT will review the ESAF to determine special handling, setup, and/or scheduling requirements.

II's will comply with all DOT and Argonne safety regulations including those that concern transportation of chemicals and samples.

5. Reporting Requirements

Within 6 months of completing an approved experiment, the II shall provide to the MUCAT Director one or more of the following:

- (a) An APS activity report for the work performed at the sector

- (b) Status of the results, if a report is not warranted, along with an estimate of when more details on the results may be expected
- (c) An explanation of the cause if the experiment did not produce any publishable results

If no report is submitted, MUCAT will postpone scheduling further II time for the investigator until the reporting requirement is met.

The II will comply with any other reporting requirement that the MUCAT Executive Committee requires of its own members.

The II will forward copies of all publications using data obtained at MUCAT facilities to the MUCAT Director and the UO. The author must include appropriate acknowledgment statements in the manuscript; please check with MUCAT for the current grant number and standard acknowledgement text.

6. Tracking of II Participation

MUCAT will submit retrospective reports on II participation to the APS. These reports will enumerate the shifts used by II's, with any Fast-Access shifts identified and briefly justified.