

The APS Proposal System: Getting beamtime

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How do I get access to the APS

All APS beamlines have at least 25% of the beamtime for General Users:

- Beamtime allocated by peer-review and open competition.
- Designed to bring in new people, keep access open to all.
- Beamtime can go to “local experts”
- Many beamlines give more than 50% General User time

The APS has three run cycles per year.

- Feb 1 to Apr 30
- Jun 1 to Aug 30
- Oct 1 to Dec 20

Proposals are due around the middle of the preceding run.

XAFS Beamlines at the APS

Beamline	GUP %	XAFS%	Notes
2-ID (XOR)	> 50%	1/4	x-ray microprobe, XANES
4-ID (XOR)	> 50%	1/2	XMCD, magnetic XAFS
5-BM (DND-CAT)	25%	1/2	catalysis, enviro
9-BM (XOR)	> 50%	most	can do S and Cl!
10-ID (MR-CAT)	25%	most	Catalysis, enviro, actinides.
11-ID (XOR)	25%	some	time-resolved.
12-BM (XOR)	> 50%	most	Catalysis, enviro, actinides.
13-BM (GSECARS)	> 50%	1/4	geo / enviro
13-ID (GSECARS)	> 50%	1/4	x-ray microprobe, geo / enviro
18-ID (BioCAT)	25%	some	biological systems
20-BM (XOR/PNC)	> 50%	most	general purpose XAFS
20-ID (XOR/PNC)	> 50%	most	x-ray microprobe, geo / enviro time-resolved

Proposal Contents

Proposals are read / rated based on

Will this experiment result in a publication?

Key Points:

- 2-3 pages: Take the time to make it short.
 - Describe “Importance of Science”
Aim broadly – Proposal will be read by physicists, chemists, biologists.
 - Describe Experiment Include details of samples to be measured, and details of experimental setup if non-standard.
 - Consult with beamline scientist / collaborators before submitting proposal.
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Matt's hints on Proposal Writing

- Describe “Societal Impact” in Abstract – they love this.
- Describe what other measurements have been made on these samples.
- Be specific and explicit about:
 - ▶ Element(s) and Edge(s) to be studied
 - ▶ Concentrations of elements to be studied.
 - ▶ Transmission, Fluorescence, Multi-Element Detector
- Give literature references:
Not your CV. Do not attach PDFs of published papers.
- Say you've taken this class! (Really!)
- If you're a student or postdoc:
 - ▶ say so.
 - ▶ list yourself as Spokesperson, not your advisor.
 - ▶ write the proposal yourself, with help.
- If you've had some beamtime and just “need more time”, Include a plot of any data collected so far.
- List a 2nd choice beamline.

Proposal Scores, Lifetime and Aging

The Proposal Review Process gives:

Proposal Scores: 1 (highest) to 5 (worst)

Proposal Shifts: # of 8-hour shifts for next run and up to 6 runs.

- Average Score for XAFS Proposals: ≈ 2.2 .
- Proposals that don't get time "Age Up" by 0.2 each run for 2 years, until they get time.
- Your proposal may be for 1 run or multiple runs. To get beamtime in more than 1 run for "the same work":
 - ▶ **Multi-Run Proposals:** make a "Beamtime Request" for time in later cycles – no new proposal.
 - ▶ **Single-Run Proposals:** copy-and-paste old proposal, make some changes for a "new" proposal.

Both of these work.

After you've submitted a Proposal

Most beamlines are oversubscribed – many 2× to 3×.

$$\text{oversubscription} = (\text{requested days}) / (\text{available days})$$

- It may take a run cycle to get beamtime.
- You may get less time than you ask for

Don't panic: it will become easier.

Once you are “in the system”, *everyone* here wants you to succeed (ie, publish!).

Most of these hints work for getting beamtime at other facilities.