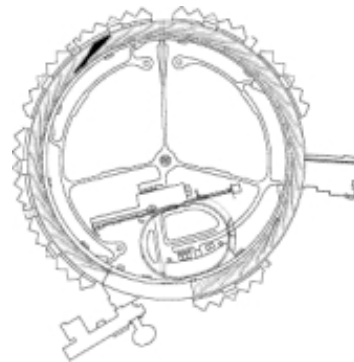


Beamline 13-BM-D: Sector 13 - Bending Magnet

Beamline End Station

GSECARS

GeoScience, Environmental Science



Description

Beamline 13 BMD is a bending magnet beamline specialized for earth and environmental science research.

Supported Techniques

- Tomography
- High-pressure diamond anvil cell
- High-pressure multi-anvil press
- X-ray absorption fine structure

Beamline Controls and Data Acquisition

Windows and Linux workstations running EPICS with VME, SPEC, IDL, marCCD, mar345, Princeton Instruments WinView and WinSpec.

Detectors

- Canberra 16-element Ge detectors (2)
- MAR-165 CCD and MAR-345 online image plate (2 each)
- Dectris Pilatus 100K pixel array detector (2)
- Vortex single-element and 4-element detectors (2)
- Princeton Instruments visible light CCD cameras (6)
- Canberra single element Ge and Si(Li) detectors (3)

Additional Equipment

- 250-ton multi-anvil press with DIA, deformation DIA, rotational Drickamer, T-cup tooling (13-BM-D)
- Diamond anvil cell with on-line Brillouin spectroscopy
- Laser Raman system in support laboratory

Local Contacts

Name MARK L. RIVERS (Tomography)

Phone 630.252.0422

Email rivers@cars.uchicago.edu

Name MATTHEW G. NEWVILLE (XAFS)

Phone 630.252.0431

Email newville@cars.uchicago.edu

Name ANTONIO LANZIROTTI (XAFS)

Phone 630.252.

Email lanzirotti@uchicago.edu

Name VITALI B. PRAKAPENKA (Diamond Anvil Cell)

Phone 630.252.0439

Email prakapenka@cars.uchicago.edu

Name YANBIN WANG (Multi-anvil Press)

Phone 630.252.0425

Email wang@cars.uchicago.edu

Beamline Specs

Source	Bending Magnet
Monochromator Type	Si(111)
Energy Range	4.5-70 keV
Resolution ($\Delta E/E$)	1×10^{-4}
Flux (photons/sec)	1×10^9 @10 keV
Beam Size (HxV)	
Focused	10 μ m x 30 μ m
Unfocused	50mm x 4mm
Monochromator Type	DCM Si(311)
Energy Range	6-28 keV
Resolution ($\Delta E/E$)	1.1×10^{-4}

For additional information see:

http://www.gsecars.org/bm_beamline_info.htm

Current Status: Operational/Accepting General Users

Access Mode: On-site