

Beamline 13-BM-C: Sector 13 - Bending Magnet Beamline Side Station

GSECARS

GeoScience, Environmental Science



Description

Bending magnet beamline specialized for earth and environmental science research.

Supported Techniques

- Surface diffraction
- High-pressure diamond anvil cell
- Single-crystal diffraction

Beamline Controls and Data Acquisition

EPICS for instrument and detector control. SPEC for surface diffraction. IDL software for single-crystal diffraction.

Detectors

- MAR-165 CCD, 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)

Additional Equipment

- Large Newport 6-circle kappa diffractometer.

Local Contacts

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Beamline Specs

Source	Bending Magnet
Monochromator Type	Si 111
Energy Range	10-10 keV
Resolution ($\Delta E/E$)	5×10^{-5}
Flux (photons/sec)	1×10^{12} @10 keV
Beam Size (HxV)	
Focused	23 μ m x 28 μ m
Unfocused	10mm x 3mm
Monochromator Type	Si 111
Energy Range	18-18 keV
Resolution ($\Delta E/E$)	5×10^{-5}
Flux (photons/sec)	8×10^{11} @18 keV
Beam Size (HxV)	
Focused	26 μ m x 28 μ m

Unfocused	10mm x 3mm
Monochromator Type	Si 220
Energy Range	30-30 keV
Resolution ($\Delta E/E$)	3×10^{-5}
Flux (photons/sec)	5×10^{11} @30 keV
Beam Size (HxV)	
Focused	26 μ m x 28 μ m
Unfocused	10mm x 3mm

For additional information see:

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

Current Status: Operational/Accepting General Users

Status:

Access Mode: On-site