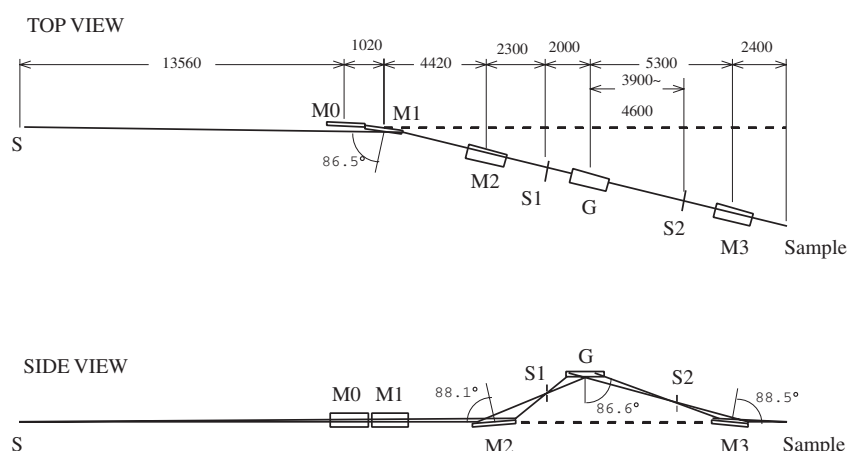


BL-13C Soft X-Ray 50m-CGM Station

This beamline provides soft X-rays in the energy range between 70 and 1000 eV from a multipole wiggler/undulator MPW#13 source. Users can change the undulator gap at any time during the experiments.



SCHEMATIC VIEW OF THE BEAMLINE

Area of Research

Soft X-ray spectroscopy (absorption, photoelectron) of solids and surfaces

Light Source

Type : Multipole wiggler/undulator MPW#13
 λ_u : 18 cm
 N_{period} : 13
 Tunable Energy Range : 70-1000 eV

Optics

Cylindrical grating monochromator (CGM) with one plain mirror and three cylindrical mirrors

Photons at sample

Energy Range : 70-500 eV (350 l/mm) or 150-1000 eV (750 l/mm)
 Energy Resolution : $E/\Delta E = 1000 \sim 6000$
 Photon Flux : Ca. 10^{10} photons/s at $h\nu = 400$ eV and $E/\Delta E = 6000$,
 Ca. 10^{12} photons/s at $h\nu = 400$ eV and $E/\Delta E = 1000$
 Beam Size : Ca. 5 mm (H) x 1 mm (V)

Facilities in Experimental Station

Personal computer for monochromator control [NEC PC9801]

Remarks

BL-13C was constructed by PF and NIMC (National Institute of Materials and Chemical Research). An XPS apparatus (ULVAC-PHI) of NIMC is usually connected to the beamline. Some vacuum chambers of PF or users can be connected also. Please make a contact with the person in charge for each apparatus. The beam height is 1.2 m. Beam time is shared with another branches BL-13A and BL-13B.

References

1. N. Matsubayashi et al., Rev. Sci. Instrum. 63 (1992) 1363.

Contact Persons

Kazuhiko MASE (Photon Factory)
 Phone: +81-298-79-6107 / Fax: +81-298-64-2801
 E-mail: mase@post.kek.jp
Hiromichi SHIMADA (National Institute of Materials and Chemical Research)
 Phone: +81-298-61-4533 / Fax: +81-298-61-4534
 E-mail: shimada@nimc.go.jp

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