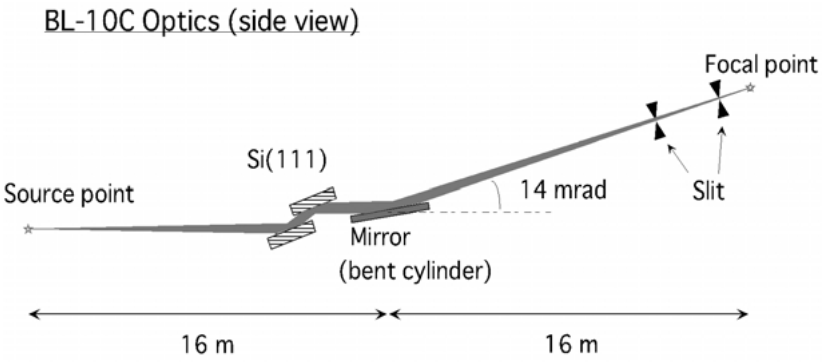
BL-10C Small-angle X-ray scattering station for solutions

This beamline is dedicated to small angle X-ray scattering experiments for liquid samples using focussed monochromatic X-rays. Ratio of the distance between the source point and the focussing mirror and that between the mirror and the focus is 1:1 in order to get small beam with small divergence.
Beam time allocation and maintenance of the apparatus are done under the cooperation of the user group (Dr. Yoji Inoko, chairperson) .



SCHEMATIC VIEW OF THE BEAMLINE

Area of Research

Conformation of biomolecules in solution and/or their changes in association with other molecules
Structural analysis of synthetic polymers

Light Source

Bending

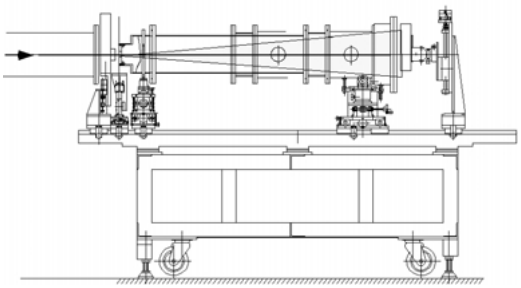
Optics

Double-Crystal Monochromator [Si(111)] + Bent Cylindrical Mirror [Pt-coated]

Photons at Sample

Energy range : 6 to 11 keV
Energy resolution : 3000
Photon flux : 1-2 × 10**11 photons/s
(for sample slit (typically) = 0.8mm(v) × 8mm(h))
Focus size : 200μm(v) × 1200μm(h)

Apparatus for Small Angle Scattering for Solutions



Detectors: PSPC with an effective detection length of 200 mm
Off-line imaging plate of 250 mm × 200 mm
Camera length: 2.0 m, 1.5.m, 1.0m, 0.6 m
Control: PC for camera control
PC for data collection using CAMAC system

Devices for sample preparation

Protein crystal and biophysics laboratories are available.

References

T. Ueki, Nucl. Instr. and Meth. A303 (1991) 464-475.

Contact Person

Nobutaka Shimizu(Photon Factory)
Phone: +81-298-64-5657

E-mail: nobutaka.shimizu@kek.jp (Apr. 2012)