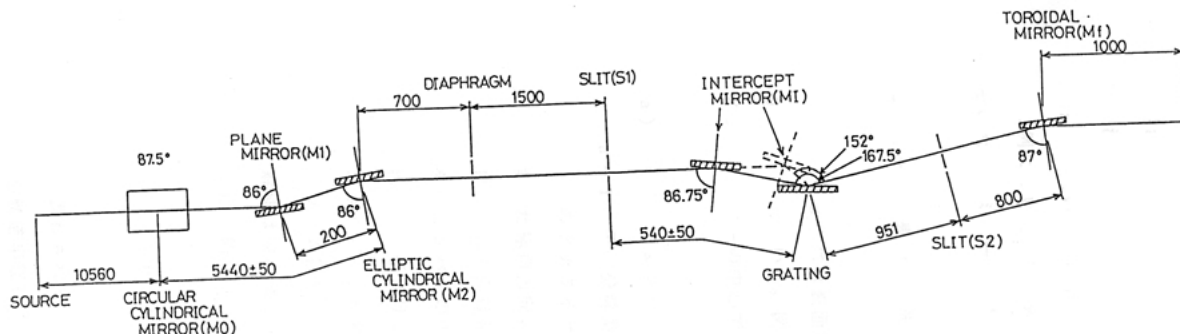


BL-18A Angle-resolved photoelectron spectroscopy station of surfaces and interfaces

The beamline 18A has been dedicated to the photoemission experiments to investigate the electronic structures of surfaces and interfaces of metals, semiconductors and various atoms and molecules adsorbed on metal and semiconductor surfaces. The beamline is equipped with a constant deviation angle grazing incidence monochromator and a commercial angle-resolved photoemission spectrometer (VG ADES 500).



SCHEMATIC VIEW OF THE BEAMLINE

Area of Research

Angle-resolved and angle-integrated photoelectron spectroscopy studies of solids, surfaces and interfaces

Light Source

Type : Bending Magnet

Optics

Grazing incidence spherical grating monochromator

Photons at sample

Energy range : 10~170eV
 Energy resolution : 1000~2000(E/ΔE)
 Photon flux : 10⁹~10¹⁰/s
 Beam size : <1φ

Facilities in Experimental Station

VG ADES500 photoemission spectrometer made by metal chamber (~10⁻¹¹mbar)
 Angle-resolved photoelectron spectrometer (E/ΔE~100 Δθ~1°)
 CLAM analyzer for angle-integrated photoelectron spectroscopy
 LEED, X-ray tube, He discharge lamp, Sputter ion gun
 Sample manipulator, Computer controlled data acquisition system
 Evaporators, Gas inlet system

Reference

S. Suzuki et al., Activity Report of SRL-ISSP 1988 (1989) 60.

Contact Persons

Toyohiko KINOSHITA

(Synchrotron Radiation Laboratory, Institute for Solid State Physics, Univ. Tokyo)
 Phone : +81-298-64-2489
 Fax : +81-298-64-2461
 e-mail : toyohiko@issp.u-tokyo.ac.jp

Akira YAGISHITA (Photon Factory)

Phone : +81-29-864-5660
 Fax : +81-29-864-2801
 e-mail : akira.yagishita@kek.jp

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