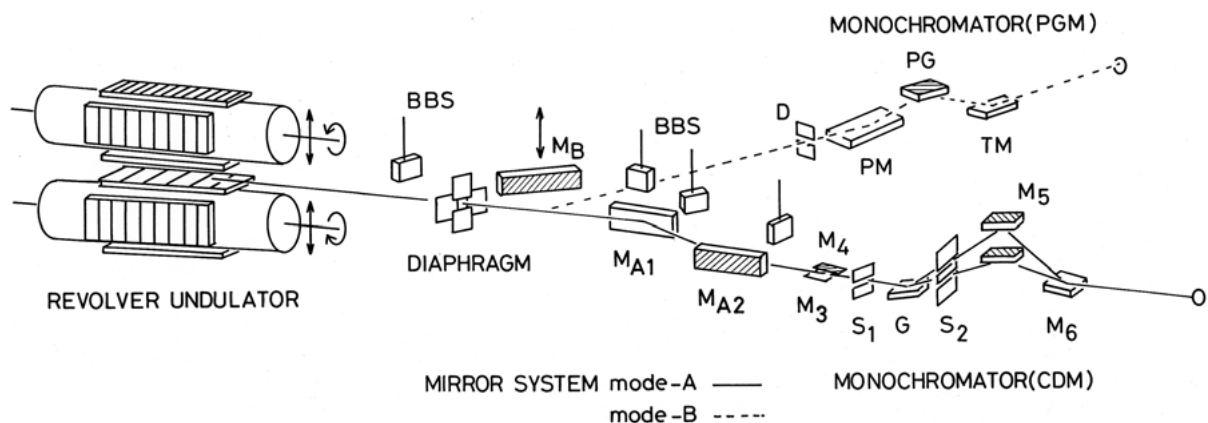


**BL-19 Revolver undulator beamline;  
BL-19A Spin-resolved photoelectron spectroscopy  
BL-19B Soft X-ray emission spectroscopy**

The beamlines BL-19A and -19B are specially designed to accept radiation from the Revolver undulator. The BL-19A is equipped with a constant deviation angle grazing incidence monochromator and is dedicated to the spin- and angle-resolved photoemission experiments for magnetic compounds and thin films. The BL-19B has a plane grating monochromator with valid line space gratings (VSPG). The studies of soft X-ray emission spectroscopy and photoemission spectroscopy are performed for solids.



**SCHEMATIC VIEW OF THE BEAMLINE**

**Area of Research**

BL-19A :  
Spin- and angle-resolved photoelectron spectroscopy of magnetic compounds and thin films  
BL-19B :  
Soft X-ray emission spectroscopy and photoelectron spectroscopy of solids

**Light Source**

Undulator (Revolver type)  
Period :  $\lambda u=16.4\text{cm}, 10\text{cm}, 7.2\text{cm}, 5\text{cm}$   
Number of periods : 14, 23, 32, 46  
K values : 0.5~9.53, 0.5~4.96, 0.5~2.74, 0.5~1.30  
Energy range : 7~1150eV

**Optics**

BL-19A:  
Grazing incidence spherical grating monochromator  
BL-19B:  
Plane grating monochromator with valid line space gratings

**Photons at sample**

BL-19A:  
Energy range : 12~250eV  
Energy resolution :  $\sim 1000(E/\Delta E)$   
Photon flux :  $10^{11}\sim 10^{13}/\text{s}$   
Beam size :  $<0.7\phi$   
BL-19B:  
Energy range : 10~1100eV  
Energy resolution :  $400\sim 4000(E/\Delta E)$   
Photon flux :  $10^{11}\sim 10^{12}/\text{s}$   
Beam size :  $<0.5\phi$

**Facilities in Experimental Station**

BL-19A :  
Spin- and angle-resolved photoelectron spectrometer with a compact Mott detector ( $\sim 10^{-10}\text{Torr}$ )LEED, He discharge lamp, Sputter ion gun  
Sample manipulator,  
Computer controlled data acquisition system  
Evaporators, Gas inlet system  
BL-19B :  
Soft X-ray emission spectrometer of Roland mounting with three gratings ( $\sim 10^{-10}\text{Torr}$ ,  $E/\Delta E\sim 600\sim 2000$ )  
CLAM4 (VG) angle-integrated analyzer ( $E/\Delta E=50\sim 200$ )  
Sample manipulator, Computer controlled data acquisition system

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### References

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### Contact Persons

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(Jan. 2001)