

Current status of UVSOR beam-lines.

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It has been widely recognized that the UVSOR facility is one of the highest brilliance light sources among synchrotron radiation facilities with electron energy less than 1 GeV. In 2012, we made the second major upgrade to the storage ring and started to call it UVSOR-III. It has small emittance around 17 nm-rad and six undulators. It is fully operated in the top-up mode with the beam current of 300mA

There is a total of 14 operational beam-lines, most of which are open to the public use. Six of them are undulator beam-lines and others are bending ones. We have one soft X-ray station equipped with a double-crystal monochromator, seven extreme ultraviolet and soft X-ray stations with a grazing incidence monochromator, three vacuum ultraviolet stations with a normal incidence monochromator, two infrared (IR) stations equipped with Fourier-Transform interferometers. Recently, BL4U has become operational, which is equipped with a scanning transmission soft X-ray microscope (STXM).

I will introduce the current status of the UVSOR beam-lines.

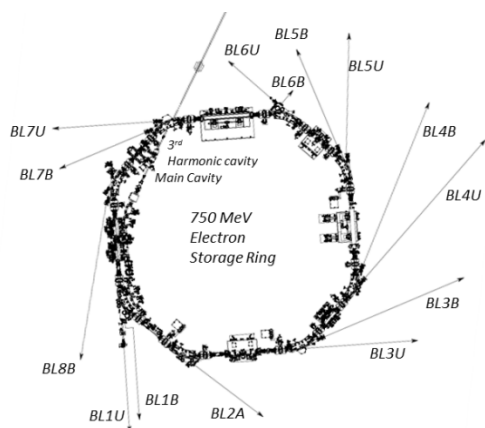


Fig. 1. Layout of the beam-lines in the UVSOR facility

Beamline	Monochromator / Spectrometer	Energy Range	Targets	Techniques
BL1U	Free electron laser	1.6 - 13.9 eV		
BL1B	Martin-Puplett FT-FIR	0.5 - 30 meV	Solid	Reflection Absorption
BL2A	Double crystal	585 eV - 4 keV	Solid	Reflection Absorption
BL3U*	Varied-line-spacing plane grating (Monk-Gillieson)	60 - 800 eV	Gas Liquid Solid	Absorption Photoemission Photon-emission
BL3B	2.5-m off-plane Eagle	1.7 - 30 eV	Solid	Reflection Absorption
BL4U	Varied-line-spacing plane grating (Monk-Gillieson)	130 - 700 eV	Gas Liquid Solid	Absorption (Microscopy)
BL4B	Varied-line-spacing plane grating (Monk-Gillieson)	25 eV - 1 keV	Gas Solid	Photoionization Photodissociation Photoemission
BL5U	Spherical grating (SGM-TRAIN')	5 - 250 eV	Solid	Photoemission
BL5B	Plane grating	6 - 600 eV	Solid	Calibration Absorption
BL6U*	Variable-included-angle varied-line-spacing plane grating	30 - 500 eV	Gas Solid	Photoionization Photodissociation Photoemission
BL6B	Michelson FT-IR	3 meV - 2.5 eV	Solid	Reflection Absorption
BL7U	10-m normal incidence (modified Wadsworth)	6 - 40 eV	Solid	Photoemission
BL7B	3-m normal incidence	1.2 - 25 eV	Solid	Reflection Absorption
BL8B	Plane grating	1.9 - 150 eV	Solid	Photoemission

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