

Soft X-ray Photochemistry

Beamline:	BL27SU	
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Subgroups:	Soft X-ray Photochemistry Soft X-ray CVD Atomic and Molecular Physics	
Scientific Applications:	High resolution molecular spectroscopy, Photoionization dynamics by various correlation measurements, Dynamics of inner-shell excited molecules, Production and dynamics of novel core-excited states by SR(UR)-laser double resonance techniques, Site-specific dissociation processes of adsorbed molecules, Growth of thin film of functional material, Micro fabrication by functional material etching, Clarification of the reaction mechanics for deposition and process.	
Source Characteristics:	Figure-8 type linear undulator $\lambda_u=100\text{mm}$, $N=44$ Tunable range: 0.5~5keV Peak brilliance: $1.1 \times 10^{18}\text{ph/s/mrad}^2/\text{mm}^2/0.1\%\text{b.w. at } 500\text{eV}$ ($I = 100\text{mA}$) Total power: 2.7kW at 1st harmonic (500eV) Power density : 1.7kW/mrad ² at 1st harmonic (500eV)	
X-rays at Sample:	Energy range: 0.5~2keV Linearly polarized Energy resolution: $\Delta E/E=10^{-4}$ Beam size: $0.5 \times 0.5\text{mm}^2$ Photon flux: 10^{12}ph/s microbeam capability of several-some tens μm diameter in the energy range of 0.5~5keV	

BL25SU: Soft X-ray Spectroscopy of Solid

