

# XAFS

Beamline: **BL01B1**

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Subgroup: Broad Energy Band XAFS

Scientific Applications: conventional XAFS & XAFS in high energy region,  
Modulation XAFS, X-ray Raman XAFS,  
XAFS in dilute systems.

Source Characteristics: Bending magnet,  $E_c=28.9\text{keV}$   
Total power:  $220\text{W}(I=100\text{mA})$   
Maximum power density:  $1.5\text{kW/mrad}^2(I=100\text{mA})$   
Source size at 2% coupling:  $\Sigma_x=0.182\text{mm}$ ,  $\Sigma_y=0.058\text{mm}$ ,  
 $\Sigma'_y=0.065\text{mrad}$  at  $10\text{keV}$

Optics:

Distance from source	Optical element	Function
32.7m	first mirror	collimation, higher harmonics elimination
35.7m	inclined double crystal monochromator	monochromatization, sagittal focusing
42.3m	second mirror	meridional focusing, higher harmonics elimination

X-rays at sample: Energy range:  $3.5 \sim 90\text{keV}$   
Energy resolution;  $\Delta E/E=10^{-4}$   
Photon flux:  $10^{10} \sim 10^{12}\text{ph/s}$   
Focused beam size:  $0.2\text{mm}$

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