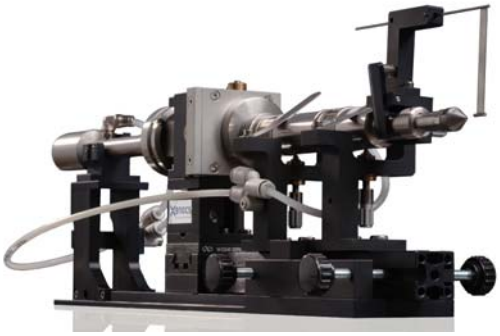
FOX2D
collimating multilayer optics

FOX2D MO 25_INF collimating optics

FOX2D MO 25_INF delivers a very intense and monochromatic Mo Kα parallel beam. The unique combination of the single reflection design with a precision graded multilayer coating simply brings more flux to your sample.

Whether coupled with a rotating anode generator or a microfocus sealed tube, this FOX2D optic is perfectly suited for SAXS and High resolution applications.



Benefits

- enhanced useful flux due to the **SINGLE REFLECTION ADVANTAGE** compared to standard two-reflection designs
- reduced collection time
- enhanced resolution (q_{min} reduction)
- enhanced lifetime and lower cost of ownership (under vacuum)
- compact mechanical design
- easy to align (10 minutes procedure)
- fits all X-ray generators rotating anode generators, sealed tubes or micro-focus sources)
- no direct beam

Applications

- SAXS (Small Angle X-ray Scattering)
- GI SAXS (Grazing incidence SAXS)
- High resolution

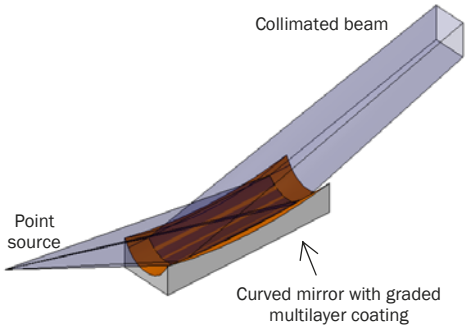
Optional Accessories

- alignment camera
- collimator
- crystal monochromator
- vacuum pump
- stand

Technical Data

Subject to technical changes without notice

Beam features	
wavelength	0.71Å / 17.4keV (Mo Kα)
beam size (at the mirror exit)	0.85x1.3 mm² FWHM
flux at 32kV–100 mA	1.16x10⁸ phs/s (measured with 200x200 µm² source)
beam uniformity	± 15% [(I_{Max} - I_{Min}) / (I_{Max} + I_{Min})] for a 0.3x0.3 mm² point source
collected angle	3.6 mrad (0.2°), for the 2 dimensions
Kα spectral purity	typically >97%
Kβ contamination	typically <0.3%
Optical features	
divergence	< 0.5 mrad FHWM (for the 2 planes with a 0.1x0.1 mm² source)
distance from source to optic centre	25 cm
precision graded multilayer	designed for the best compromise between reflectivity and total flux
substrate with optimized shape	parabolic
Mechanical features	
overall FOX 2D system length	280 mm
mirror length	80 mm
reversible mechanical housing	6° take off angle ± 2 x Bragg angle
tilt and incidence micrometric screws for a simple and sensitive adjustment	10° total range (both axes) movement in vertical (tilt) and horizontal (Bragg) directions
XYZ adjustment table	14x14x5 mm³ stroke
Vacuum features	
primary vacuum housing	longer lifetime and lower cost of ownership
beryllium or Kapton® windows	loss per window : <0.1% (Kapton®)
dry vacuum pump	working pressure : 3 mbar pumping speed : 0.6 m³/h voltage : 220V or 110V



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Reflecting Future Technology

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