

Structural Biology : FOX2D optics bring more flux to your Lab !

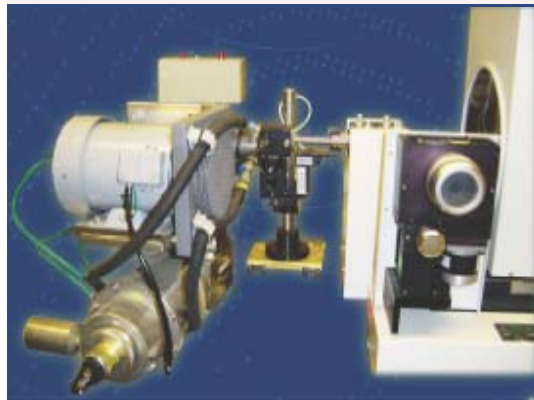


FOX2D is a single reflection two dimensional graded multi-layer optic:

- easy to align
- evacuated housing
- boosts flux at sample

"Thanks to this new optics upgrade we are now able to acquire a full data set within less than half a day"

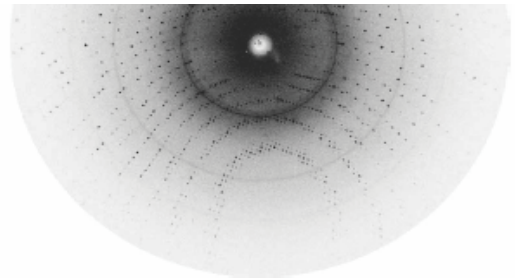
Dr. Richard Kahn, Research Fellow, Institute of Structural Biology (IBS), Grenoble, France.



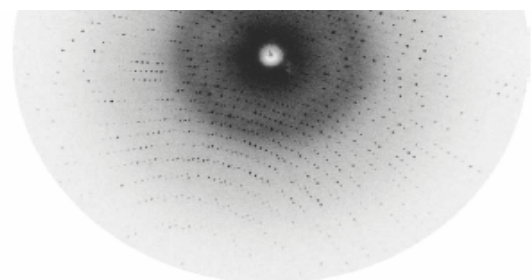
Rotating Anode RU200 (300x300 μm^2) running at 5 KW (50 KV, 100 mA) equipped with Fox Optics and MAR300 diffractometer, used in metal phasing (SAD) experiment.

Before upgrade (classical confocal multilayer system)	Lysosyme crystal 0.4x0.4x0.4mm and Gd as a phasing agent. Unit cell (A) a=b=77.12 c=38.6	Xenocs FOX2D CU 12_38P
3 Minutes exposure	Data collection : 360 images at 1° steps	1 Minutes exposure
0.55	Moaicity	0.55
0.209	Rsym from 1.86 to 1.75	0.209
0.262	Rsym from 1.86 to 1.75	0.27
0.053	Rsym mean	0.048
0.053	Rfac	0.048
0.074	Rano	0.074
99.8	Completion	99.9
23.4	Multiplicity	23.3
9.0	Imean/Sig	10.2
2.5	I/Sig from 1.75 to 1.66	3.3

After upgrade (with FOX2D optics from Xenocs): **1 minute exposure**



Before upgrade (with classical confocal multilayer system): **3 minutes exposure**



Resulting Patterson map using the FOX2D optics:

Hen egg-white lysozyme using a new class of Gadolinium complexes employed to obtain high phasing power heavy-atom derivatives. (ref. Acta Cryst D (2003) D59,118-126)

