

## Scintillation crystal - Objective Mount

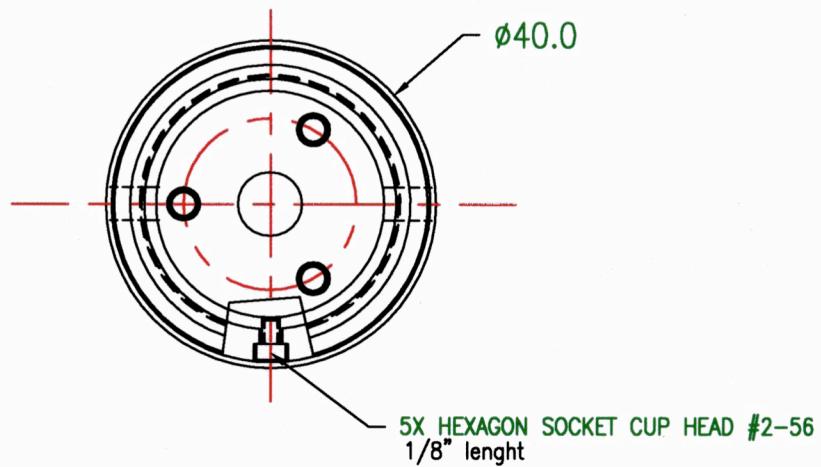
Yong Chu, Emil Trakhtenberg, Petr Ilinski,  
Francesco De Carlo, David Paterson

- Combination of **Microscope objective** and **Scintillation crystal** into one piece for better efficiency and convenience of x-ray micro-imaging experiments. Mounts with different crystal/objectives can be easily interchanged.

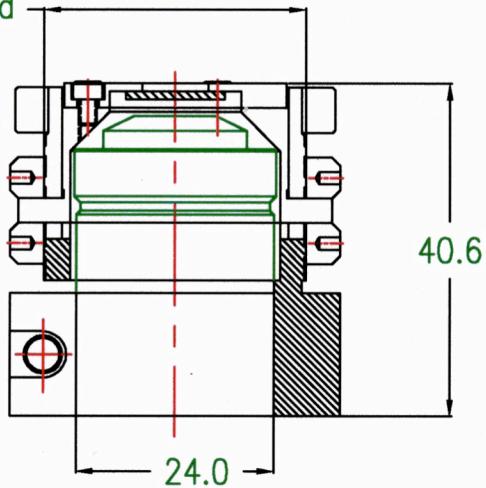
Requirements:

- 2.5x, 5x, 10x, 20x(?) objectives
- Placing scintillation crystal as close as possible to the sample
- Easy to align
- Stability of alignment
- Robust
- Different brands objectives can be used (not easy to implement - design is limited to 24-mm-diam. objectives)
- Reasonable cost (under \$700)

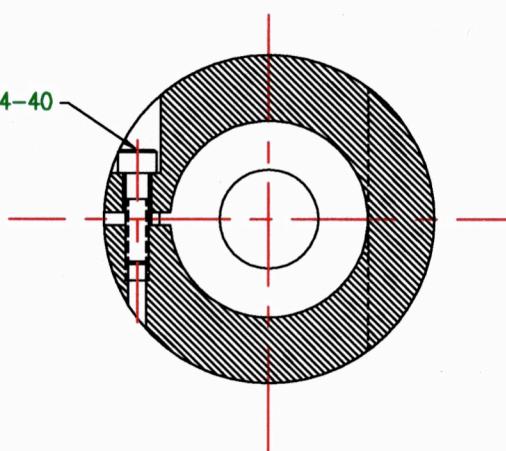
Catalog No.	Description	NA	WD (mm)	DoF ( $\mu\text{m}$ )	Difraction limited Objective Resolution ( $\mu\text{m}$ )	FoV (for CCD 1024x1024 6.7 $\mu\text{m}$ pixel) (mm)	CCD Pixel size at the image plane for a 1024 x 1024 ( $\mu\text{m}$ )
440300	1.25x neo-fluar	0.035	3.5	<b>450</b>	8.7	5.2 x 5.2	5.1
440310	2.5x neo-fluar	0.075	9.3	<b>100</b>	4.1	2.6 x 2.6	2.5
440320	5x neo-fluar	0.15	13.6	<b>24</b>	2.0	1.36 x 1.36	1.3
440330	10x neo-fluar	0.3	5.6	<b>6.1</b>	1.0	0.68 x 0.68	0.7
1004-072	20x neo-fluar	0.5	1.6	<b>2.20</b>	0.6	0.34 x 0.34	0.3
1022-818	40x neo-fluar	1.3	0.17	<b>0.32</b>	0.2		
440760	63x neo-fluar	1.4	0.09	<b>0.28</b>	0.2		



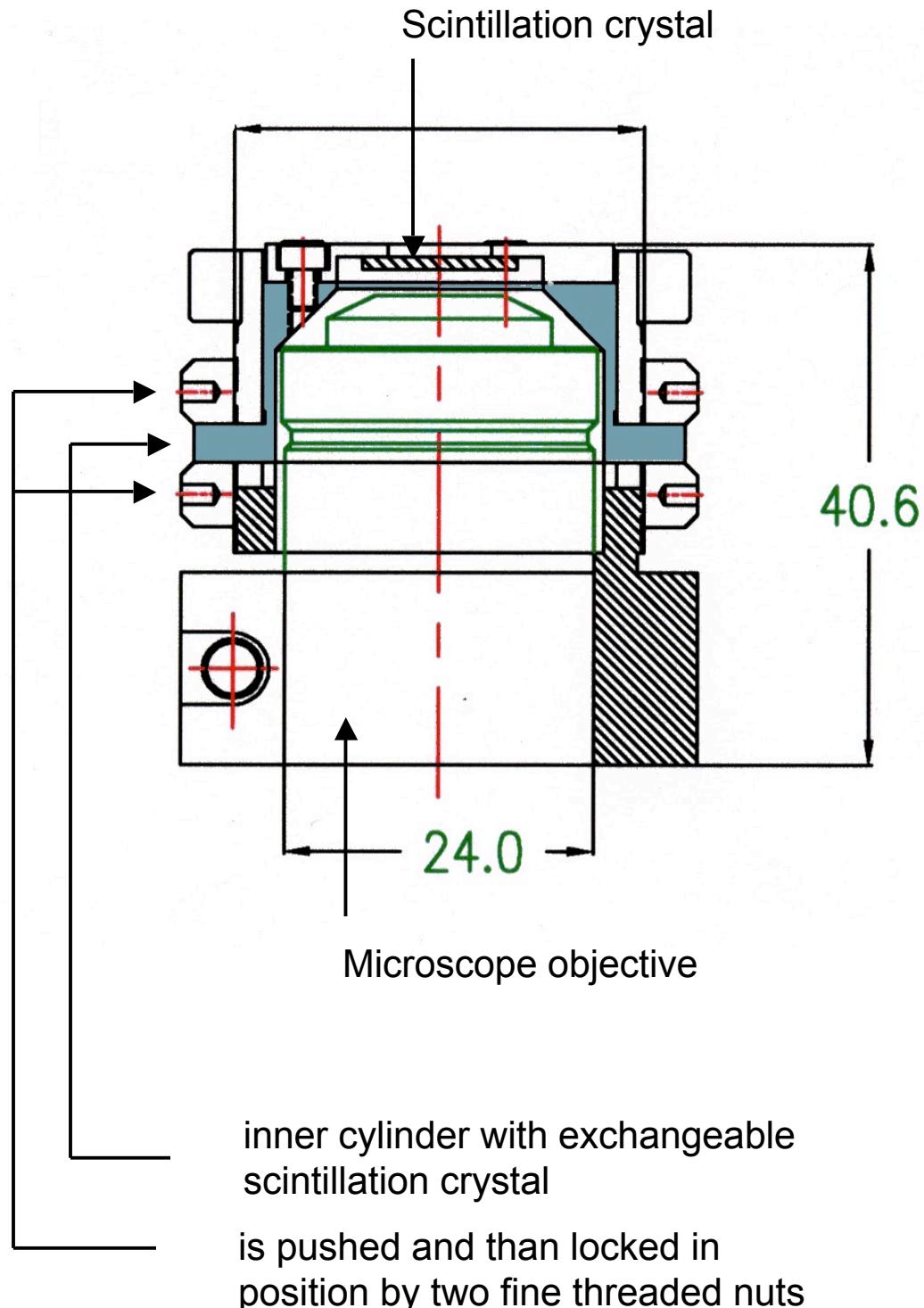
31.75-80 special tread

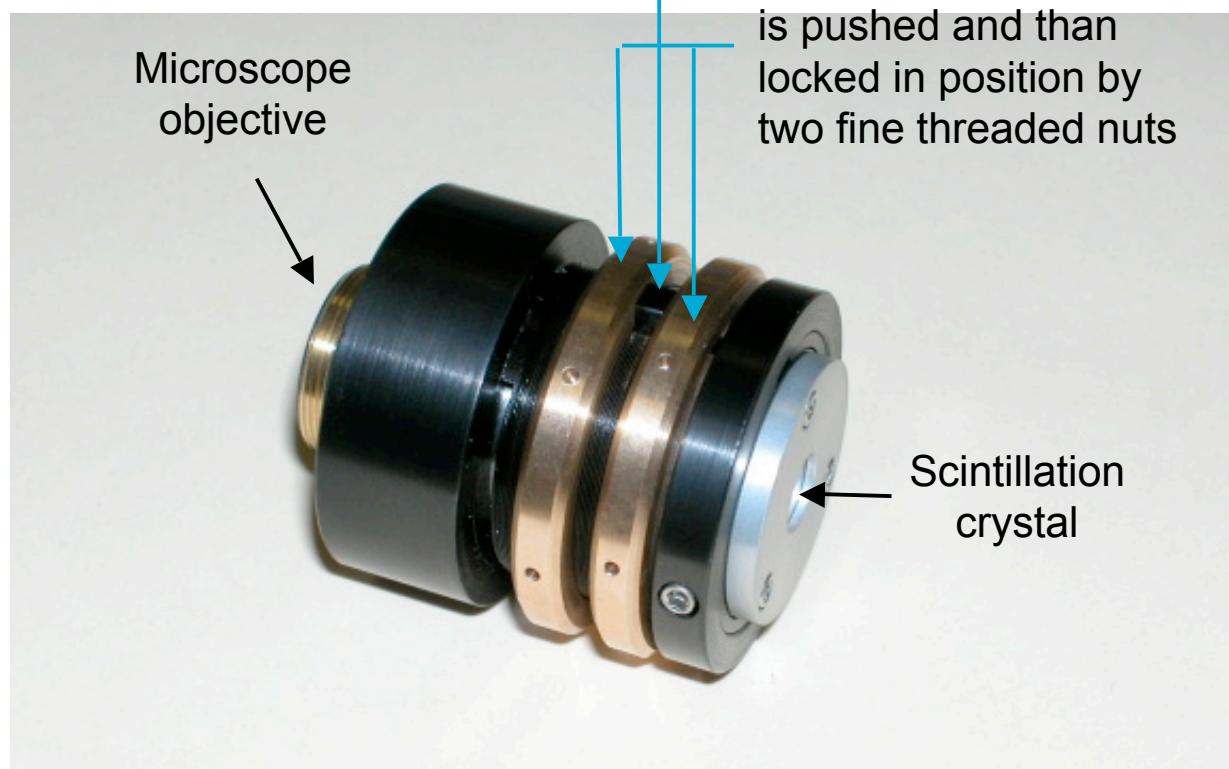


HEXAGON SOCKET CUP HEAD #4-40  
7/16" lenght



EMIL TRAKHTENBERG  
05/20/02





# Diffraction Imaging Setup

## Yong Chu, XFD

