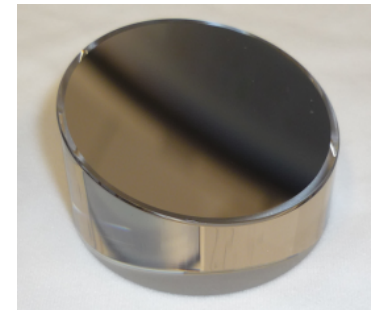
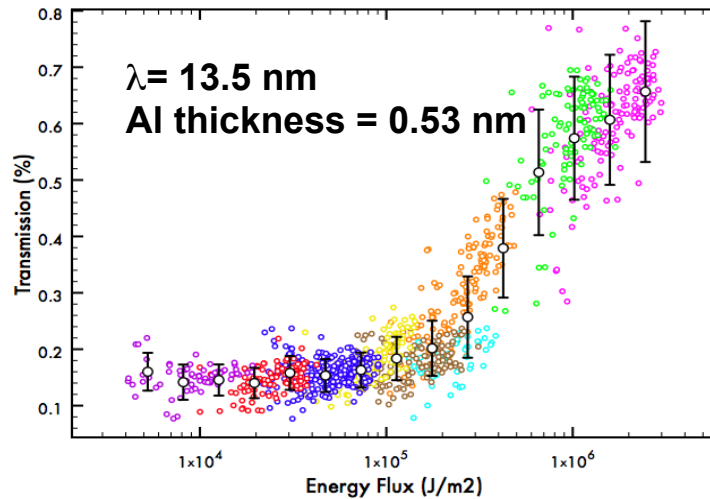
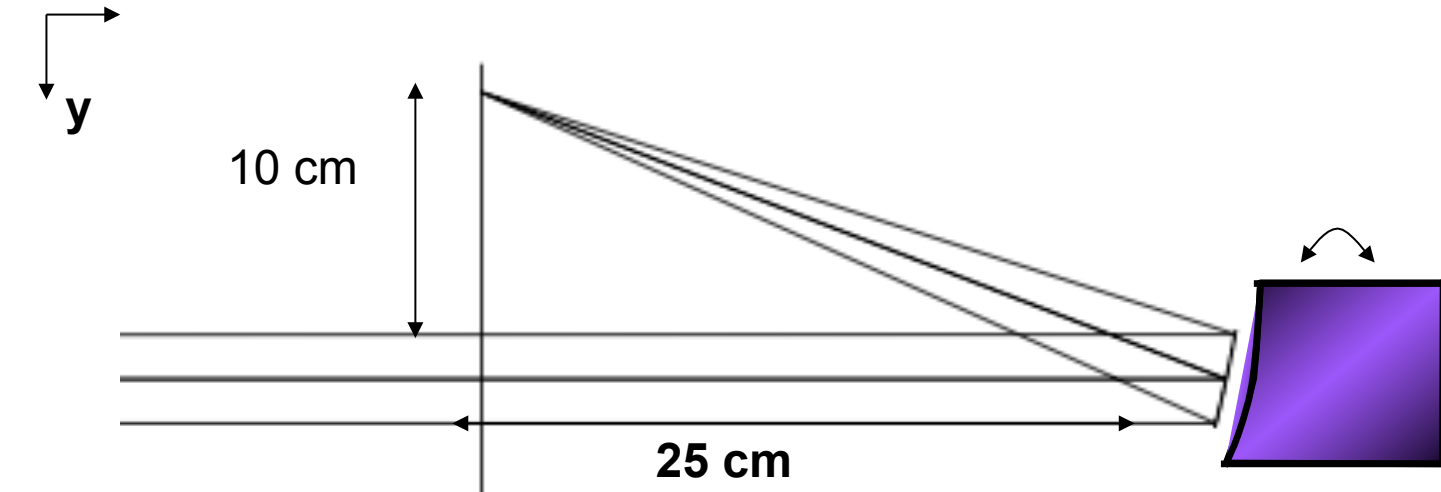


Focusing soft X-rays in normal incidence geometry to sub-micron with multilayer-coated off axis parabola



We are developing multilayers and coating off-axis parabolas to focus soft X-ray FEL beam. Sub-micron micron FEL beam with Intensities of up to $40 \text{ mJ} / (40 \text{ fs} (10^{-4} \text{ cm}^2))$, corresponding to the power of $\sim 10^{17} \text{ W}/\text{cm}^2$ enabled first warm dense matter experiments such as turning solid Aluminium transparent.

B. Nagler et al, *Nature Phys.* 5, 693 (2009)
A. Nelson et al., *Opt. Exp.* 17, 18271 (2009)
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