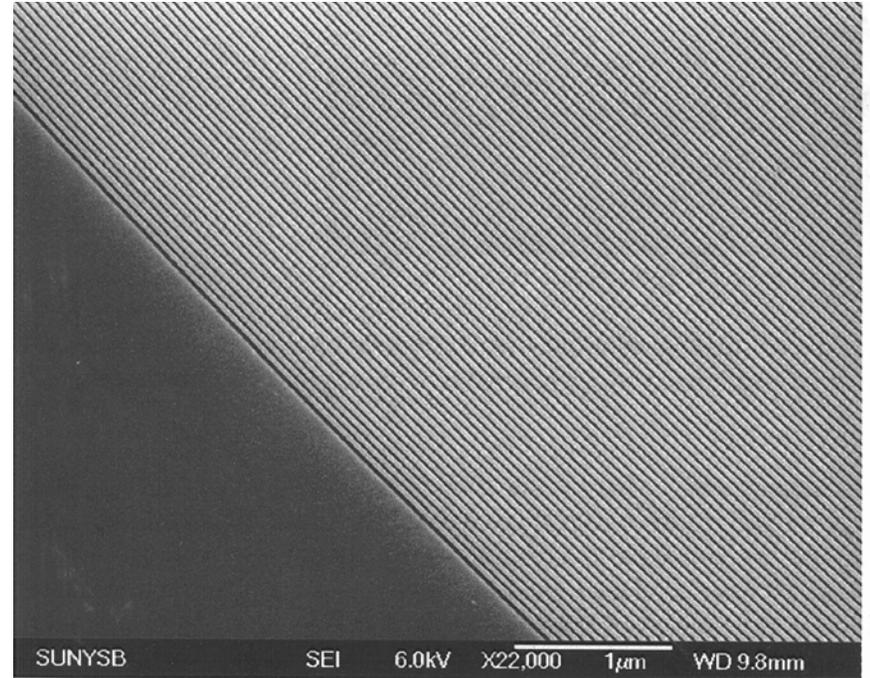


Nanofabrication of Zone Plate Optics

Motivation: To improve the spatial resolution of x-ray microscopies for studies of organic, biological and materials science specimens.

Results and Significance: Since spatial resolution is determined by the finest linewidth in X-ray zone plate optics, the optimization of the electron beam lithography process parameters are of the highest importance. The micrograph shows the achievement of 25 nm zones in ZEP 520 e-beam resist using the JEOL 9300 e-beam exposure tool at Lucent Technologies.

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Publication: In progress



Micrograph showing outer zones of a 25 nm minimum zone width zone plate

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