

The Transmission X-Ray Microscope Project at NSRL

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Synchrotron radiation facility of NSRL has updated through the second stage project and its performance is better than ever. Also a full-field transmission x-ray microscope (TXM) project was proposed in 2003 and was put into practice in 2004. According to the schedule, the microscope will operate by the beginning of 2006. It will employ the radiation from bend magnet and be installed on a newly-built beamline. The spatial resolution theoretically is about 50nm.

Main parameters of the TXM are as follows.

Condenser zone plate (KZP7): diameter 9mm; outermost width 50mm

Objective zone plate (MZP): Diameter 80microns; outermost width 40mm

Pinhole: Diameter 15microns

Spectrum resolution ($\lambda/\Delta\lambda$): about 600

CCD (Andor Ltd Co.): 13microns \times 13microns/pixel, 1024pixel \times 1024pixel

Magnified : \times 800

Work wavelength: 2.4nm