The status of hard x-ray microfocusing at Shanghai Synchrotron Radiation Facility (SSRF)

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The hard x-ray microprobe upgrade project at beamline BL15U1 at SSRF has obtained initial results. The new focusing system (fig. 1) is based on the hard x-ray fresnel zone plates with 50nm outermost width. The achieved resolution ~200nm (fig. 2) is dominated by the source size and the optical aberrations of transport optics rather than by diffraction.



Fig. 1. The fresnel zone plates hard x-ray nano-focusing system.

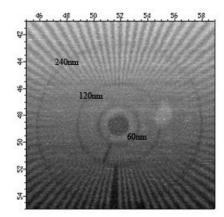


Fig. 2. Raster sanning XRF images of the siemens star test pattern.