

SSRF XAFS Beamline Design

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A high performance XAFS beamline on the third generation lightsource facility, Shanghai Synchrotron Radiation Facility (SSRF), is described. The source of XAFS beamline is a 38-pole wiggler device with maximum magnetic field of 1.2T. The main optical components include a collimating-mirror, a liquid nitrogen cooled double crystal monochromator (DCM) with two sets of Si crystals (Si (111) and Si (311)), a focused-mirror and harmonic rejection mirrors. Focused mode with energy range from 3.5keV to 22.5keV and unfocused mode with energy range from 3.5keV to 50keV are designed. Associate with a 32-element high pure Ge solid detector, SSRF XAFS beamline can provide ultra low concentration experiments.

Key word: XAFS, multi-pole wiggler, focused-unfocused, high performance