Shanghai Synchrotron Radiation Facility

Xu Hongjie, Zhao Zhentang, Ding Hao, and He Jianhua
Shanghai Institute Applied Physics, Chinese Academy Sciences
Shanghai 201800, China

Abstract：

Shanghai Synchrotron Radiation Facility (SSRF)， also named Shanghai Light Source, is a third generation synchrotron radiation light source. It is mainly composed of a 150MeV linac, a 3.5GeV booster, a 3.5GeV storage ring and a dozen of beamlines and stations. The SSRF storage ring is designed of a DBA lattice with a circumference of 432 m. It will operate at 3.5GeV with about 4nm.rad emittance. The construction of SSRF started in December 2004 and is now in full swing. It is planned to be in operation for users from April 2009.

SSRF has a capacity of accommodating more than 60 beamlines. Seven public beamlines will be built on SSRF as the Phase I beamlines, which include macromolecular crystallography beamline(U), XAFS beamline(W), diffraction beamline(B), microfocus beamline(U.), X-ray imaging beamline(W), X-ray scattering beamline(B), soft X-ray microscopy beamline(EPU). One branch beamline --- X-ray interference lithography beamline--- will be first user beamline.

This paper presents the main design features of SSRF and its current status.