

Accelerators of Aichi Synchrotron Radiation Center

Naoto Yamamoto¹, Masahito Hosaka¹, Takumi Takano¹,
Atsushi Mano¹, Yoshifumi Takashima¹, Masahiro Katoh²

1. *NUSR, Nagoya University, Chikusa-ku, Nagoya, Japan*
2. *UVSOR, IMS, Myodaiji-cho, Okazaki, Aichi, Japan*

Construction of the Aichi Synchrotron Radiation Center, formerly called Central Japan Synchrotron Radiation Facility, has been completed in the Aichi prefecture of Japan and the user operation was successfully started in March, 2013. The user operation is performed with 300 mA top-up mode on four days in a week.

The key equipments of our accelerators are an 1.2 GeV compact electron storage ring that is able to supply hard X-rays and a full energy injector for top-up operation. The beam current and natural emittance of the storage ring are 300 mA and 53 nmrad. The circumference is 72 m. The magnetic lattice consists of four triple bend cells and four straight sections. The bending magnets at the centers of the cells are 5 T superconducting magnets and the critical energy of the SR is 4.8 keV. The injector consists of a 50 MeV linac and a booster synchrotron with the circumference of 48 m. To save construction expenses, the injector is built at inside of the storage ring. More than ten hard X-ray beam-lines can be constructed. One variable polarization undulator has been also installed.

In this paper, details and present statuses of accelerators of Aichi SR will be reported

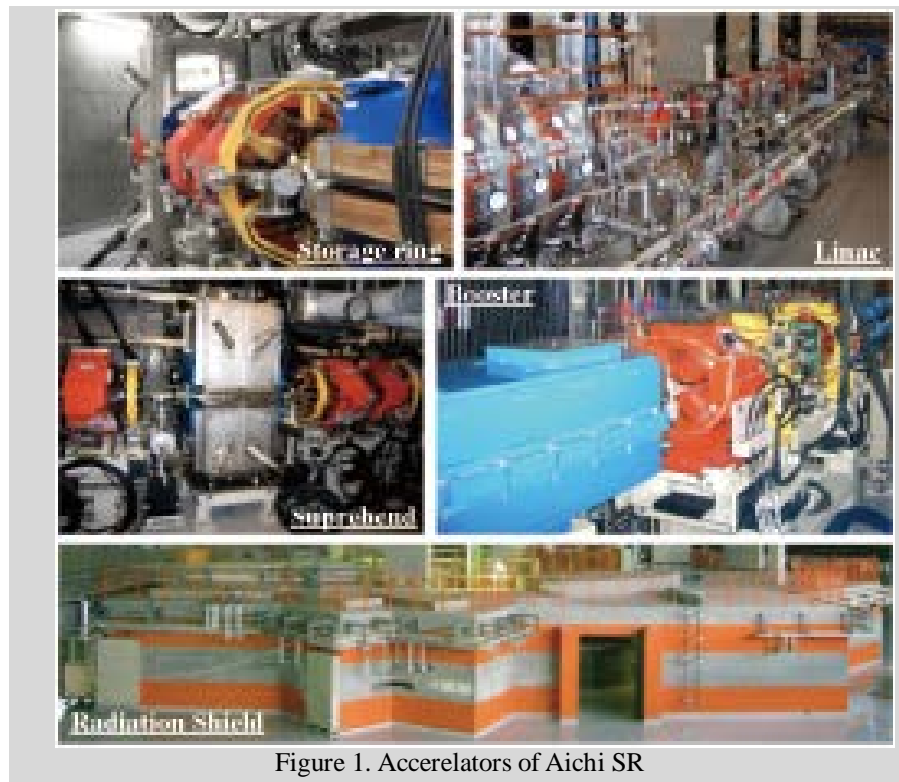


Figure 1. Accelerators of Aichi SR