Status of SPring-8

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SPring-8 has been in operation for more than 9 years, and contributing a lot to fundamental and applied research as the brightest synchrotron radiation facility in the world. While upgrading the accelerator complex and beamlines (including construction), there have been a total of 53515 scientists using this facility, and 8024 research subjects carried out in total.

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Accelerators & Beamlines: The major attainments are (i) the modification of optics, (ii) the introduction of long straight sections by modifying straight cells, (iii) the installation of a 25 m long undulator, (iv) the orbit stabilization by suppressing mechanical vibration and temperature fluctuation, (v) the low emittance beam and (vi) the top-up operation. Owing to these attainments, highly stable and reliable X-ray beams have been realized at SPring-8. There are 48 beamlines currently in operation. These include 25 public, 7 RIKEN, 14 contract, and 2 accelerator diagnosis beamlines. The beamline that started operation most recently is BL17SU (Coherent Soft X-ray Spectroscopy). A new beamline BL14B2 (Engineering Science Research II) is under construction.

Status: In 2004, the operation schedule of the storage ring became subject to a significant modification because of the major damages to the roof caused by the record-braking typhoons. However, the repairs were finished by March 2005, and the operation resumed entirely. In 2005, the operation time, the user time (including 59 hours of down time), the adjustment-and-study time were 4781, 3757, 1023 hours, respectively, being almost as scheduled. The numbers of research subjects and the users in 2005 were 1179 and 7773, respectively, for the public beamlines, and 337 and 2564 for the contract beamlines.

Usage: In addition to the existing programs for the public beamlines, there has been *Priority Research Program* introduced in order to further expand research outcome from SPring-8. The program consists of (a) *Priority Field Proposal*, (b) *Power User Proposal*, and (c) *Strategy Proposal*. The *Priority Field Proposal* currently covers Medical Biology Trial Use, Protein 3000 Project and Nonotechnology Support Project. Industrial use has been also promoted through organizing *Industrial Application Division*. Proposal procedure for the public beamlines has become fully online system to ease the application process for the users. The policy on public use has been revised, and the user charge system for expendables will be introduced from 2006B (Sept. 2006).