

## SS02-1 Introduction of SPring-8 BL38B1

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SPring-8 BL38B1 is established for automation and routine data collection in macromolecular crystallography exploiting stable beam produced from bending magnet X-ray source. The monochromatized X-ray beam by using a SPring-8 standard double crystal monochromator is focused into the size of 230 x 180  $\mu\text{m}^2$  in the horizontal and vertical directions at the sample position with the rhodium-coated bent-cylindrical mirror. Its photon flux and flux density at the sample position are  $8.0 \times 10^{10}$  photons/sec and  $2.0 \times 10^{12}$  photons/sec/mm<sup>2</sup> at 12.4 keV, respectively. This beamline can provide X-rays in an energy range from 6.5 to 17.5 keV for various anomalous diffraction studies.

To achieve efficient data measurement, the automation of data measurement using a sample changer robot SPACE has been installed. Since SPACE has the special feature to assure the reproducibility of the crystal mount position, the data sets can be automatically collected once the crystal centering is performed. Furthermore, we are developing the shutterless continuous rotation method using a CMOS detector for fast data collection. This system will be introduced to BL38B1 near future.

Currently, the commercial mail-in service in the bending magnet beamlines by JASRI has started in April 2009.