Poster Presentation

MS027.P01

Development of data collections of SPring-8 MX beamlines

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In SPring-8 MX beamlines, we are going to develop new applications for rapid and efficient data collection by enhancing each characteristic property in collaboration with each beamline.

In undulator beamline, BL41XU, high flux micro-beam produced by high-magnification focusing optics is very suited to data collection from small crystals. For such micro-crystals, we developed a diffraction scan system using low-dose X-rays and multi-crystal data collection system. In order to treat many micro-crystals, High speed sample changer with double arm is going to be installed. High energy mode covering 20 - 35 keV is implemented for characteristic structural analysis such as ultra-high resolution data collection and phasing with heavy atom whose absorption edge is located in this energy range.

For rapid protein crystal screening using as few crystals as possible, the original crystallization plates scanning system using synchrotron X-ray, Humidifier with the HAG (Humid Air and Glue-coating) mounting method and X-ray topography system are installed in the bending magnet beamlines BL26B1 and BL38B1. These techniques is supported with BOSS (Beamline operation scheduling software) developed for the convenience of beamline alignment of measurement.

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Keywords: synchrotron x-ray crystallgoraphy, macromolecular crystallography