# Multiple 2-Dimensional X-ray Detecting System on a Powder Diffraction Beamline BL5S2 at AichiSR

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## Aichi Synchrotron Radiation Center (AichiSR) BL5S2 Beamline

Light Source : Super-conducting bending magnet
Beam Line Optics :
(1) Cylindrical (M0) mirror for collimation
(2) Double flat Si (111) crystal monochromator
(3) Cylindrical (M1) mirror for focusing
Photon energy : $h\nu = 5 - 23$ keV ( $\lambda = 0.25 - 0.053$ nm )
Resolution : $E / \Delta E \approx 7000$ (typ.)
Photon Flux : $10^{11}$ $s^{-1}$ (typ.)

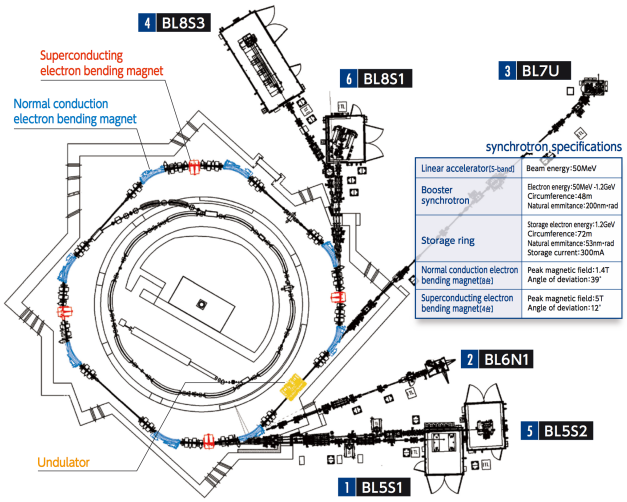


Fig. 1 AichiSR synchrotron light source

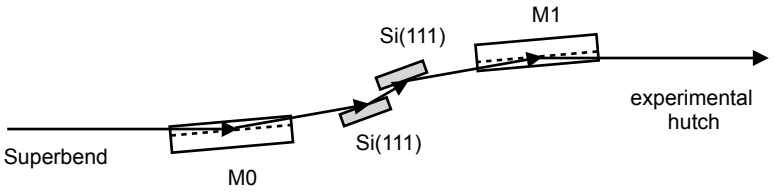


Fig. 2 Schematic configuration of BL5S2 beam line optics

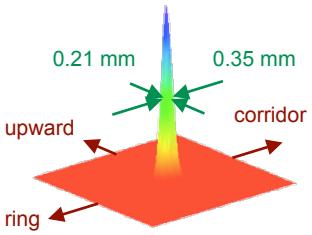


Fig. 3 Cross-section intensity distribution of the AichiSR BL5S2 incident beam, recorded with an Imaging Plate

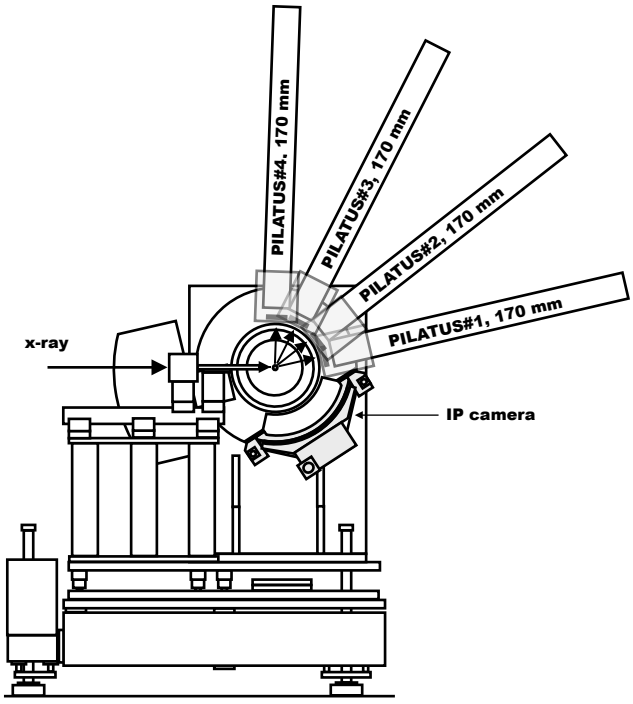


Fig. 4 One-shot configuration of 4-PILATUS at camera length of 170 mm ($2\theta$ coverage : –1°~101°)

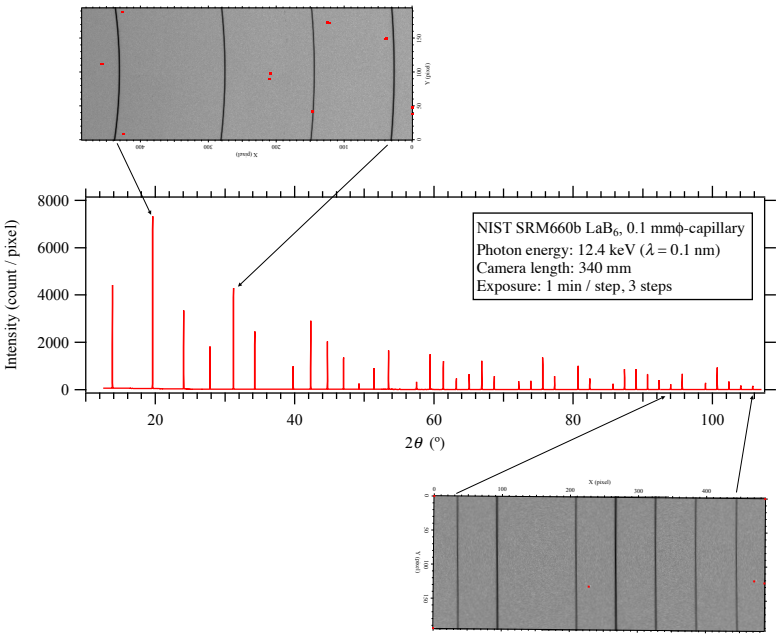


Fig. 5 Diffraction pattern of $LaB_6$ measured with 4-PILATUS at camera length of 340 mm