

Developments and plans of SR-HP experiment in Japan

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Two kinds of focusing optics were developed at the Photon Factory for DAC experiments. One is the combination of the Kirkpatrick-Baez-type mirror and a flat double-crystal monochromator, installed at the bending magnet beamline to cover the energy range of 5 to 25 keV. The focus size is 35 μm (vertical) and 70 μm (horizontal). The other, for laser-heated DAC experiments, is a curved crystal monochromator of the Johann geometry, installed at the MPW beamline. The focus size is approximately 100 μm in the horizontal direction at the focus point 1.5 m from the monochromator with the energy of 30 keV.

At SPring-8, two beamlines related to high pressure study have been approved by the Beamline Approval Committee last year and are now under construction. One is the 'High Pressure Mineral Physics Beamline' for high temperature and high pressure experiments and is equipped with a double stage apparatus in 1500 ton press and uses a BM as a source at first stage. The other is the 'Extremely Dense State Beamline' for DAC experiments and uses an undulator as a SR source. The former beamline will begin commissioning next spring and is expected to open for users autumn 1997. The latter is delayed by half a year.