

JAERI Beamlines

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1. Introduction

JAERI has planned a research programme to use the synchrotron radiation of SPring-8 in the field of materials science (Table 1). JAERI organizes the synchrotron radiation research groups in Harima, which include Experimental Facilities Development Group, High Pressure Science Group, Structural Physics Research Group, Surface Chemistry Research Group, Heavy Atom Science Group, and Electronic Physics Research Group. Three JAERI beamlines (BL23SU, BL14B1 and BL11XU) have been constructed to carry on the research programme. The BL23SU beamline with an undulator as a source is used for heavy

element science, surface chemistry and radiation biology. The BL14B1 beamline is for structural analysis under high pressure using the white X-ray beam from a bending magnet source and for structural analysis of random system materials and liquid/solid interface using the monochromatized beam. The BL11XU has an undulator source for use in structural analysis of solid/solid interfaces and glasses, high pressure experiments and research into vibrational excited states of matter using nuclear resonant inelastic scattering.

The present status of the three JAERI beamlines are described in the following pages.

Table 1. JAERI research programme of SPring-8

