

MATERIALS SCIENCE

ELECTRONICS & MAGNETISM

In the field of Materials Science (Electronics and Magnetism), SPring-8 is a very useful tool from the viewpoints of X-ray diffraction, spectroscopy, Compton and inelastic scattering, imaging and so on. A variety of beamlines cover this field. Research frontiers of materials science are really being produced from SPring-8 owing not only to its high-quality light but also to the new development of experimental techniques. Recently, electronic structures including the magnetic and phonon information of a variety of materials are investigated by bulk sensitive methods. These are great achievements in the use of SPring-8.

As one of the priority research programs, the nanotechnology support program was started in 2003. This program is expected to stress the importance of Materials Science in furthering new achievements and in developing industrial applications. Some interesting projects have been proposed from this program, and new apparatus has been introduced to the beamlines at SPring-8 by the support from this program. Studies using this apparatus are also expected.

Some of the topics that appear in this issue are outstanding studies. These techniques may become more familiar and general to many users worldwide in the near future, which will also support the progress of Materials Science.

Toyohiko Kinoshita