

not previously possible in Canada. Moreover, the unique sensitivity of the neutron to hydrogen and deuterium allows a scientist to highlight a chosen part of a complex biological structure. The CNF neutron beams will provide an effective research tool in such areas as biological membranes, blood cells, block co-polymers, colloids, gels, networks of microcracks and precipitates in alloys.

Recognizing that economic competitiveness is linked to innovative capabilities in materials-based technologies, a special committee of the Natural Sciences and Engineering Research Council recommended in its 1994 report, *Canada's Future In Materials Research*, that Canada make an immediate commitment to develop a fully-equipped reactor-based national

source for neutron beam research. In 1998, the National Research Council produced a report, *Future Prospects for Neutron Beam Research and Technology Development in Canada*, which concluded that: "Neutron beam sources are part of an essential suite of materials probes to which advanced industrial economies must have access in order to respond to the challenges of materials research...Future access to high flux neutrons is a critical issue for the future growth of the Canadian neutron scattering and materials research community at large".

The 1998 International Proposal Review Committee found the CNF to be "a world-class facility that will meet the needs of a broad spectrum of university and industrial materials research."



*Neutron beam research provides scientists and engineers with valuable information about materials that affect our daily lives.*