

Ian Anderson

"Science Opportunities at ORNL's Neutron Sources"

The Neutron Sciences Directorate at Oak Ridge National Laboratory (ORNL) operates two of the world's most advanced neutron scattering research facilities: the Spallation Neutron Source (SNS) and the High Flux Isotope Reactor (HFIR). Our vision is to provide unprecedented capabilities for understanding structure and properties across the spectrum of biology, chemistry, physics, and engineering, and to stay at the leading edge of neutron science by developing new instruments, tools, and services. This talk will provide an update on the operations of the two research facilities and highlight the significant research that is emerging. For example, scientists from ORNL are at the forefront of research on a new class of iron-based superconductors based on experiments performed at the Triple-Axis Spectrometer at HFIR and ARCS at SNS. The complementary nature of neutron and x-ray techniques will be discussed to spark discussion among attendees.

Ian Anderson is an experimental physicist with expertise in neutron scattering techniques applied to materials science. He became Associate Laboratory Director for Neutron Sciences at Oak Ridge National Laboratory (ORNL) in October 2007, overseeing the operation and scientific activity of the Spallation Neutron Source (SNS) and the High Flux Isotope Reactor. He joined ORNL in March 2002 to become director of the Experimental Facilities Division at the SNS, leading the construction of the target facility and neutron scattering instruments and the development of the user program. After the SNS project was completed in 2006, he became Director of the Neutron Scattering Science Division in the ORNL Neutron Sciences Directorate, with responsibility for developing and managing the science programs within the directorate. Before coming to ORNL, Anderson was head of the Neutron Optics Laboratory at the Institut Laue-Langevin in Grenoble, France, where he led a team working on the development and production of optical elements for neutron-beam instrumentation. He has more than 25 years of experience in carrying out active research programs in the field of hydrogen in metals, and he developed neutron scattering techniques at major research facilities both in Europe and the United States. Anderson obtained his PhD and an MSc in physics from Birmingham University, and BA and MA degrees in natural sciences from the University of Cambridge, England.

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3:00 p.m.

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