



Gaining Access

Access to Oak Ridge user facilities involves the peer review and approval of the user's proposal and an executed agreement between the user institution and UT-Battelle. Prospective users can submit proposals directly to the facility of interest. Acceptance depends on scientific merit, suitability of facility for the project, and appropriateness of the work to DOE objectives.

Once a proposal is approved, specific operating procedures, time allotted, user fees (if any), and collaborative arrangements will be determined. Upon proposal approval, the ORNL Partnerships Directorate begins the process to execute a user agreement with the user institution. This agreement, which can be proprietary or nonproprietary, stipulates terms and conditions, including intellectual property, liability and administrative provisions.

Oak Ridge National Laboratory User Facilities

Building Technologies Research
and Integration Center (BTRIC)

Center for Nanophase Materials Sciences (CNMS)

Center for Structural Molecular Biology (Bio-SANS)

High Flux Isotope Reactor (HFIR) User Facilities

High Temperature Materials Laboratory (HTML)

Holifield Radioactive Ion Beam User Facility (HRIBF)

National Center for Computational Sciences (NCCS)

National Transportation Research Center (NTRC)

Safeguards Laboratory (SL)

Shared Research Equipment (SHaRE) User Facility

Spallation Neutron Source (SNS)

Contact us at:

partnerships@ornl.gov
Or toll-free at 888-221-2527

www.ornl.gov/partnerships

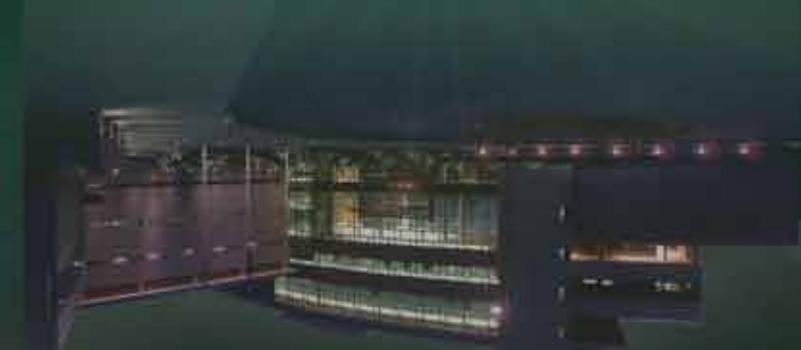
ORNL 2009-G00616/aas

 PARTNERSHIPS



USER Facilities

at Oak Ridge National Laboratory



Unique Opportunities

Department of Energy user facilities enhance partnerships between national laboratories and the business and education communities by providing access to expensive, unique research tools and resources. Oak Ridge National Laboratory is home to 11 such facilities that advance national research and development missions while minimizing duplication of effort, promoting beneficial scientific interaction, and making the most effective use of these resources. The facilities are used by thousands of researchers from ORNL, industry, academia, foreign institutions, and other government laboratories.



 OAK
RIDGE
National Laboratory



Facilities & Their Missions

The **Buildings Technologies Research and Integration Center** is devoted to the development of technologies that improve the energy efficiency and environmental compatibility of residential and commercial buildings. It offers tools and expertise on building envelopes, heating and cooling, equipment, and monitoring and systems analysis.

The **Center for Nanophase Materials Sciences** is a research facility for the synthesis, characterization, theory/modeling/simulation, and design of nanoscale materials and structures and the understanding of nanoscale phenomena. Its scientific program focuses on fundamental nanoscale science and nanotechnology opportunities and needs.

The **Center for Structural Molecular Biology** is dedicated to developing instrumentation and methods for determining the 3D structures of proteins, nucleic acids, and their higher-order complexes. CSMB tools will help researchers understand how these macromolecular systems are formed and how they interact with other systems in living cells. The focus is to bridge the information gap between cellular function and the molecular mechanisms that drive it.

The **High Flux Isotope Reactor** is the highest flux reactor-based source of neutrons for condensed matter research in the United States. Its neutron scattering capabilities help provide knowledge about the molecular and magnetic structures and behavior of materials, which is useful in fields such as physics, chemistry, materials science, engineering, and biology. HFIR also provides capabilities for isotope production and irradiation studies.

The **High Temperature Materials Laboratory** provides access to world-class expertise and instrumentation to characterize the microstructure and composition of materials and their physical and mechanical properties. Research emphases are on characterization of materials for highway transportation technologies including lightweight and high-strength materials, automotive and heavy-vehicle propulsion materials, thermoelectric and energy storage materials, and catalysts.

The **Holifield Radioactive Ion Beam Facility** provides high-quality beams of short-lived radioactive isotopes produced when intense beams of light ions from the Oak Ridge Isochronous Cyclotron strike highly refractory targets. The ion beam is injected in the 25-MV tandem and provided for research on nuclear reaction, structure, and astrophysics.

The **National Center for Computational Sciences** provides some of the world's most powerful computing resources for open research. Resources at the NCCS – designated by DOE as the nation's Leadership Computing Facility – include a Cray XT5 with a peak performance of more than 2 petaflops. Investigations on NCCS resources range from materials science to astrophysics, combustion to fusion simulations, and beyond.

The **National Transportation Research Center** develops and evaluates advanced transportation technologies and systems. It provides state-of-the-art hardware and computational resources to address issues such as fuel economy, emissions, traffic congestion, evacuation planning, and highway safety.

The **Safeguards Laboratory** provides users access to certain sealed radioactive standards, such as Special Nuclear Material, that are not readily available through private or public avenues. The laboratory has an internationally recognized capability for conducting hands-on testing, evaluation, and validation of radiation measurement equipment, as well as customized training for integrated safeguards methods, procedures, and instrumentation.

The **Shared Research Equipment User Facility** offers advanced capabilities for materials characterization in the areas of transmission and scanning electron microscopy, atom probe tomography, x-ray photoelectron spectrometry, and dual-beam focused-ion-beam and ultramicrotomy specimen preparation and support.

The **Spallation Neutron Source** is an accelerator-based neutron source that allows researchers in a variety of disciplines to study the arrangement, motion, and interaction of atoms in materials. SNS provides the most intense pulsed neutron beams in the world for scientific research and industrial development.

