

Library Without Walls

Library Without Walls (LWW) is a digital library that delivers scientific, technical, and business information to users with a personal computer, Internet access, and one of the common Worldwide Web browsers. LWW focuses on creating a network of knowledge systems that facilitate scientific communication and collaboration so that sharing, reasoning, and collaboration become part of everyday work.

Through LWW, users worldwide can access over 3,500 electronic journals, over 3,000 electronic conferences, and five major scientific databases. In addition, LWW offers current awareness services that inform users about new publications in their areas of interest. Current project work within LWW pursues cutting-edge work in areas such as multi-database searching, personalization, linking, open archives, recommendation systems and visualization.

Visit the Library Without Walls:

lib-www.lanl.gov/lww/welcome.html

For a complete list of LANL User Facilities visit:

www.lanl.gov/partnerships/mechanisms/usrfac.html

For information regarding User Facilities:

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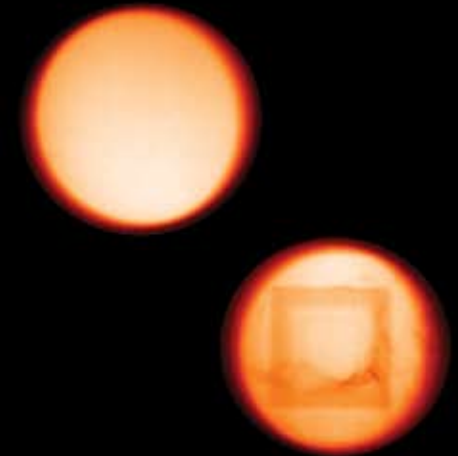
www.lanl.gov/partnerships

Cover: Image plate exposure of a beam spot upstream of the test device and downstream of the test device in LANL's ICE House test facility. The shadow of the semiconductor devices is seen in the downstream image. The 30° left flight path was selected because the neutron spectrum most closely matches the cosmic-ray-induced neutron spectrum.

High-tech firms, universities, and other government agencies put microchips and electronics in the Irradiation of Chips and Electronics (ICE) House beam at LANL's LANSCE facility to study neutron-induced single-event effects (SEEs). This recently constructed facility permits users to set up and conduct experiments efficiently.

User Facilities at Los Alamos National Laboratory

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User Facilities at Los Alamos National Laboratory (LANL)

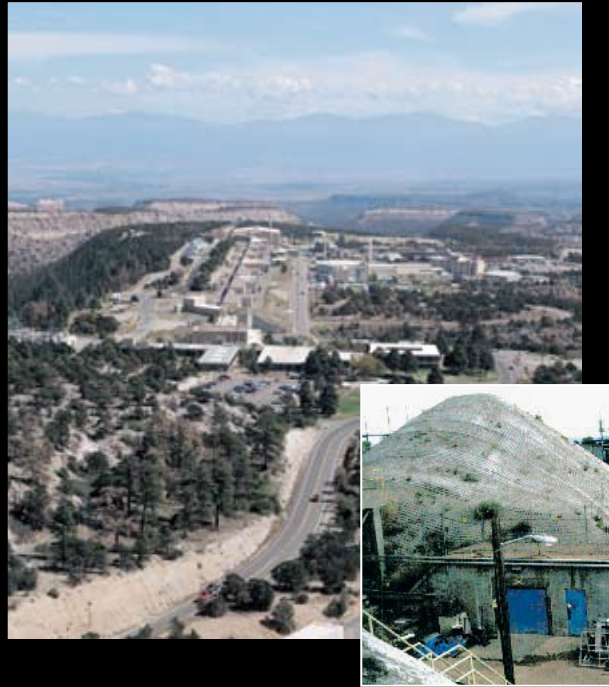
The Laboratory's User Facility Program gives external users the opportunity to use the excess capacity of many of the Department of Energy's (DOE's) highly specialized, mission-related facilities. Use of these unique facilities is charged on a full-cost-recovery basis. Through this program, DOE allows industrial companies, small businesses, educational institutions, and other government agencies access to its unique facilities.

The program, managed by the Laboratory's Technology Transfer Division, allows private companies to run their own experiments, fabricate, calibrate, test, and evaluate products and processes on the Laboratory's equipment using Laboratory facilities, paying only actual operating costs. Users retain all of the data and intellectual property generated while performing studies in DOE-LANL facilities.

How do I gain access to one of the Laboratory's User Facilities?

The Laboratory's User Facility Agreement is a contractual agreement between the Laboratory and external parties designed to permit outside users, including scientists and engineers from industry, universities, and other governmental agencies, to conduct research using the Laboratory's unique experimental research equipment and facilities. The Laboratory has approximately 40 facilities currently available for use. Users develop a Statement-of-Work describing the work they wish to perform in a LANL facility. Once an agreement is signed by both parties (user and LANL) and funding is received, users may actively engage in the completion of work under the User Facility Agreement, paying full cost for use of the facility.

Featured facilities:



Aerial overview of the LANSCE and WNR site. Inset shows Target 2 dome. The quilted concrete dome is shielding over the Target 2 area known as the "Blue Room."

LANSCE and the Weapons Neutron Facility

The Los Alamos Neutron Science Center (LANSCE), which produces intense sources of pulsed neutrons, provides the scientific community with the capability to perform experiments that support national security and civilian research. Neutron beams are available at the Weapons Neutron Research (WNR) facility. The WNR facility consists of a high-energy, "white" neutron source (Target 4), a proton reaction area (Target 2), as well as the nuclear physics flight paths at the Manuel Lujan Jr. Neutron Scattering Center. A continuous-energy spectrum of neutrons from 0.1 MeV to over 600 MeV is produced via spallation reactions on moderated and unmoderated neutron production targets. Because the proton beam is pulsed, the energy of the neutrons can be determined by time-of-flight techniques. The time structure of the proton beam

can be easily optimized for the requirements of particular experiments. Typically, Target 4 operates with a proton beam current of approximately 5 μ A, 1.8 μ sec between pulses, and approximately 35,000 pulses/sec. Target 4 is the most intense high-energy neutron source in the world. Target 4 has six flight paths instrumented for a variety of measurements.

For more information about the facilities visit:
lansce.lanl.gov



A researcher makes high temperature superconducting tape, shown above with copper bar. Both carry comparable amounts of current.

Superconductivity Technology Center

The High Temperature Superconductivity User Facility, within the Laboratory's Superconductivity Technology Center, consists of 10,000 square feet of laboratories and office space in the Los Alamos Research Park. This facility allows users to

- fabricate high temperature superconducting tape;
- measure the physical and electronic properties of superconductors; and
- develop and demonstrate applications using superconductors.

Users who can benefit from these facilities are those engaged in

- building transmission cables, fault current limiters, and current leads;
- doing magnetic resonance imaging; and
- producing electrical generators, motors, and transformers.