Geophysical Research Abstracts, Vol. 7, 06005, 2005
SRef-ID: 1607-7962/gra/EGU05-A-06005

The North American neutron scattering centers

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North America boasts six of the world's top facilities for neutron scattering investigations of matter including geomaterials. Three of these are reactor-based sources HFIR Center for Neutron Scattering (CNS) in Oak Ridge, Tennessee, NIST Center for Neutron Research (NCNR) in Gaithersburg, Maryland, and NRC Neutron Program for Materials Research (NRC is the National Research Council Canada) in Chalk River, Ontario, Canada. The spallation-based neutron sources are the Spallation Neutron Source (SNS, beginning operations in 2006) also in Oak Ridge, the Intense Pulsed Neutron Source (IPNS) in Argonne, Illinois, and the Lujan Neutron Scattering Center at the Los Alamos Neutron Science Center (LANSCE), in Los Alamos, New Mexico. Each of these scattering Centers has a user program through which experimentalists may apply for beam time. Calls for proposals are issued on regular or rolling schedules for the neutron scattering instruments in the respective North American user programs. At the heart of these user programs are external, peer-reviewed, proposal systems for determining beam time allocations. All of these facilities provide state-of-the-art neutron scattering instruments using thermal or cold neutrons to study problems in physics, chemistry, materials science, biology, engineering, and geology.