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### **Opportunities in Inelastic Neutron Scattering at Oak Ridge National Laboratory<sup>1</sup>**

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The Spallation Neutron Source (SNS) and the High Flux Isotope Reactor (HFIR) are the two world class neutron scattering user facilities located at Oak Ridge National Laboratory. Inelastic scattering instruments designed to optimally utilize their source are either in, or will soon enter, the user program. The HFIR has three thermal and plans for two cold, neutron triple axis spectrometers in the user program. These instruments examine localized regions of  $\mathbf{Q}$  and  $\omega$  space with tunable resolution. The spectrometers at the SNS cover broad ranges of  $\mathbf{Q}$  and  $\omega$  space. The BASIS instrument, in the user program, uses near backscattering analyzer crystals to provide  $3\mu\text{eV}$   $\omega$  resolution. The ARCS thermal to epithermal neutron spectrometer is in commissioning and the Cold Neutron Chopper Spectrometer will enter commissioning soon. These instruments provide moderate, tunable resolution, and detector coverage out to  $140^\circ$ . The SEQUOIA spectrometer, complete in 2008, is the fine resolution complement of ARCS. The finest resolution is provided by the Spin-Echo spectrometer; complete in 2009. The HYSPEC spectrometer, available in  $\approx 2011$ , will provide polarized capabilities and optimized flux for neutrons of thermal energies. Finally, the Vision chemical spectrometer will use crystal analyzers to access  $\omega$  in the epithermal range. These instruments, along with representative science to be performed on each, will be presented.

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