

UNC Charlotte
Department of Chemistry
Seminar

April 19, 2004
4:00 pm
Burson Building 115

"The Center for Nanophase Materials Sciences: A New User Facility for Nanoscience at ORNL"

The Center for Nanophase Materials Sciences (CNMS) at Oak Ridge National Laboratory is one of five new Nanoscale Science Research Centers that the U.S. Department of Energy is constructing as part of its contribution to the National Nanotechnology Initiative. These new Centers will be operated as national user facilities to provide the Nation's research community with access to world-class resources for the synthesis, processing, fabrication, and analysis of materials at the nanoscale. For the past 2 years, the prospective user community has been engaged through workshops and other means in a planning process to determine the initial research thrusts and instrument suites for the CNMS. This talk will describe the elements of the resulting CNMS user research program, which will include activities in the areas of Macromolecular Complex Systems, Functional Nanomaterials, Nanoscale Magnetism and Transport, Catalysis and Nano Building Blocks, Nanofabrication, Theory Modeling and Simulation, and Nanoscale Imaging and Characterization. In addition to providing access to a baseline set of state-of-the-art capabilities for research in the above areas, the CNMS program will also have a significant emphasis on the development of truly unique research capabilities that will continually extend the state-of-the-art. An initial user-initiated nanoscience research program is already underway using existing ORNL facilities. Following a peer-review process, 42 user proposals were selected in December 2003 for start-up this year. This interim user program will continue to grow via additional calls for user proposals as we ramp up toward the scheduled opening of the CNMS in October 2005.

CNMS website– <http://www.cnms.ornl.gov>

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T E Haynes (invited)