



JOINT INSTITUTE FOR NEUTRON SCIENCES



- **Built by the state of Tennessee.**
- **Bldg completed in Sept. 2010.**
- **Operated jointly by UTK and ORNL.**
 - Research collaboration
 - User service
 - Seminars
 - Coffee Hour: Wednesday 3:30.
- **Home of NSSD research thrusts (soft-matter physics).**

The JINS Building completed in September, 2010



- 30,000 sq. ft.; 8 labs, 60 offices, seminar room and 4 small meeting rooms.
- Cost \$8.7M, funded by the state of Tennessee.

Grand Opening, Dec. 3, 2010



- Dedication with Governor Phil Bredesen.

Vision of Space Use

- Maximum fluidity; agile organization
 - Very few permanent staff
 - More students, postdocs and visitors.
- Balanced occupancy
 - ~ 1/3 UT, 1/3 ORNL, 1/3 Visitors
- Facilitates Crosscutting Science
 - e.g., Extreme conditions, engineering, synthesis
- Expectation of regular turn-over
 - Mechanism to ensure fluidity



JINS User Space

- JINS Coffee Break: Wednesday 3:30.
- JINS Seminar.
- Discussion Rooms with audio/visual.
- Office for an extended (more than a week) stay.
- Computer power (to be installed).
- Sample preparation and characterization.
 - X-ray diffraction, PPMS, rheometer.

DOE EPSCoR Program



- Experimental Program to Stimulate Competitive Research (EPSCoR) Implementation Award
- Awarded in 2008; \$2.97M for 3 years (\$0.99M by UTK)
- Neutron Travel Fellowship to promote the use of neutron scattering among the EPSCoR researchers (10% of the budget)
- Collaborative research
- New equipment for users

EPSCoR Research is limited to collaborative research projects

- Graduate Students and PostDocs are co-supervised
- Within UT, four collaborative efforts have started
 - Biology, polymers, condensed matter physics, and interdisciplinary effort on glasses and colloids.
- Coupled strongly to NSSD Science Centers

EPSCoR equipment purchased through grant will enhance capabilities

- A sizable budget for equipment purchase (\$670K for 3 years; 50% match by UT)
 - PPMS, computer clusters, protein synthesizer, in-situ environment for scattering.
- Purchase delayed because of the JINS building: We will start ordering very soon.
- Equipment will be operated and maintained by JINS. Neutron users are welcome to use them.



NSF-IMR

- A major instrumentation award (\$1.16M) for a liquid levitator system to be used at several beam lines at the SNS.
- Highly rated (second in the nation).
- Template for the JINS equipment proposal.

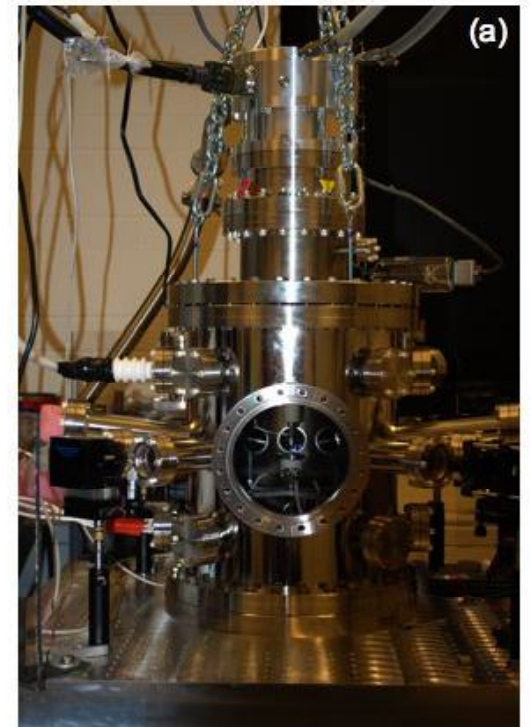


Fig. 9 - Photograph of the WU-BESL. The front flange with Be window for the scattered x-rays has been removed.

Goals of the JINS

- Developing Science Leadership in Focused Areas
 - Encourage and nurture interdisciplinary collaboration
 - Focal point of NSSD Science Centers
 - Creation of new ideas and new sciences
 - Program development:
 - DOE-BES: Beyond the regular framework of DOE-FWPs
 - Target other agencies
- User Service
 - Common equipment, offices, seminars

Goals (cont.):

Education and Outreach

- JINS will provide infrastructure, organization, and management for education and outreach programs
 - Mark Dadmun named JINS Associate Science Director
 - Lynn Kszos manages NScD communication and outreach, and therefore provides coordination with NScD efforts
 - Education Project Manager (new hire) will be shared with NScD and will be an ORAU employee
- JINS provides the home for multiple educational efforts
 - Base for UT and NScD's participation in the ORNL Graduate Program
 - Site for short courses (e.g., Graduate Course in Neutrons in Biology)
 - Additional EPSCoR and NSF funding opportunities

Our plans for future includes education and outreach

- Education
 - Facilities for long distance learning
 - Distributed graduate courses
 - Foundation for REU Program
- Outreach
 - Local K-12 effort; high school teachers
 - Forming connection with local community

