## SNS HFIR User Meeting Agenda October 11-13, 2005 ORNL Research Support Center

Sponsored by:

Oak Ridge National Laboratory, Spallation Neutron Source, High Flux Isotope Reactor, Center for Nanophase Materials Science and Office of University Relations Oak Ridge Associated Universities University of Tennessee / Joint Institute for Neutron Sciences

Tuesday, October 11, 2005			
8:00 am	Registration opens	Building 5200 Upstairs Lobby	
8:30	Welcome – Jim Roberto, ORNL Welcome – Pedro Montano, DOE/BES <i>[file]</i> Welcome – Thom Mason, ORNL <i>[file]</i>	Room 202A-C	
9:00 - 10:30	<b>The Look Ahead</b> HFIR – Steve Nagler, HFIR <i>[file]</i> SNS – Ian Anderson, SNS CNMS – Linda Horton, CNMS <i>[file]</i>	Room 202A-C	
10:30 - 11:00	Break	Room 202A-C	
11:00 – noon	Plenary Lecture – Synergies Shenda Baker, Harvey Mudd College		
Noon – 1:30 pm	Lunch with continuing discussions Poster session featuring SNS and HFIR instruments	Upstairs Lobby	

1:30 - 6:00	Parallel Technique Sessions				
1:30 – 3:30 Session A: room 202-A <b>Diffraction</b> (Chair: Angus Wilkinson, Ga Tech) Hanno zur Loye, South Carolina: Oxide Structures Containing Sodium Cations in Trigonal Prismatic Environments [file] John Evans, Durham: Structure=f(x), Surface Fitting and Structural Complexity [file] Sossina Haile, Cal Tech: Structural Studies of Proton- Conducting Inorganic Electrolytes [file] Jason Hodges, SNS: POWGEN3 IAT Meeting [file] Bryan Chakoumakos, HFIR: HFIR Diffraction Instruments [file]		1:30 – 3:30 Session B: Room 202-B <b>QENS</b> (Chair: Despina Louca, UVa) Sow-Hsin Chen, MIT: Pressure Dependence of Fragile-to- Strong Dynamic Cross-over Transition in Deeply Supercooled Confined Water Studied by Quasielastic Neutron Scattering [file] Frans Trouw, LANL Janna Maranas, Penn State: Melting and dynamics in dehydrated phospholipid bilayers [file] Ken Herwig, SNS		<ul> <li>1:30 – 3:30 Session C: Room 202-C</li> <li>SANS (Chair: Megan Robertson, California-Berkeley)</li> <li>Joe Zaccai, ILL: Applications of SANS to strategic problems in biology [file]</li> <li>George Wignall, HFIR: SANS Studies of Polymers and Colloids: Past Highlights and Future Directions [file]</li> <li>J. K. Zhao, SNS: Extended Q-Range SANS at the SNS [file]</li> <li>Gary Lynn, HFIR: New SANS instruments at HFIR[file]</li> </ul>	
3:30 – 4 pm       Break         4 – 6 pm Session D: room 202-A         Engineering Diffraction Materials Behavior Studies with Neutrons (Chair: Cam Hubbard, ORNL)         Hahn Choo, Tennessee and ORNL: Neutron Diffraction Studies of Mesoscopic Deformation Behavior of Structural Alloys[file]		<ul> <li>4 – 6 pm Session E: Room 202-B</li> <li>Inelastic (Chair: Steve Shapiro, BNL)</li> <li>Young Lee, MIT</li> <li>Andrew Christianson, California-Irvine/ LANL: Localized Excitation in the Hybridization Gap in YbAl<sub>3</sub></li> <li>Dmitriy Sokolov, Michigan: Quantum Criticality in the Itinerant Antiferromagnet Cr-V [file]</li> <li>Garrett Granroth, SNS: Neutron spectrometry at the High Flux Isotope Reactor and the Spallation Neutron Source [file]</li> </ul>		4 – 6 pm Session F: Room 202-C <b>Reflectometry</b> (Chair: Paul Butler, NIST) Charles Majkrzak, NIST: <i>Neutron reflection and</i> <i>diffraction from thin films and multilayered structures</i> <i>[file]</i> Tonya Kuhl, UC Davis : <i>Neutron Reflectivity of</i>	
Suresh Babu, Edison Welding Institute: Application of In- situ Diffraction Tools towards Fundamental Understanding of Material Behavior During Thermo-Mechanical Processing [file] Les Butler, LSU: Prospects for Neutron Tomography and High-Speed Radiography: Complex Structure Imaging Cam Hubbard, ORNL and Xun-li Wang, SNS: Status of Commissioning NRSF2 at HFIR and Construction of VULCAN at SNS				<ul> <li>Confined Polymer Brushes [file]</li> <li>Michael Kent, Sandia : Protein interactions with lipid monolayers by neutron and x-ray reflection and grazing incidence x-ray diffraction [file]</li> <li>Mathias Lösche, Carnegie Mellon &amp; CNBT, NIST : Surface sensitive neutron scattering as a tool for the molecular-scale characterization of biomimetic membranes</li> <li>John Ankner, SNS : Neutron reflectometry facilities at ORNL</li> </ul>	
6:00	Reception and science poster session; over 40 posters are anticipated		RSC	1	
8:00 Adjourn					

Wednesday, October 12, 2005						
8:30 – 9:30am	Sample environment: Lou Santodonato, SNS			Room 202	Room 202 A-C	
9:30 - 10:30	User policies, proposal system: philosophy and feedback (Chair: Steve Shapiro, BNL) Greg Smith, HFIR: <i>The SNS-CNS User Program: Applying for Beam Time [file]</i> Al Ekkebus, SNS: <i>User access [file]</i> Ken Herwig, SNS: <i>Plans for sample management [file]</i>				Room 202 A-C	
10:30 - 11:00	Break continuing discu	Break continuing discussions			Upstairs lobby	
11:00 - Noon	SHUG meeting – Ang	SHUG meeting – Angus Wilkinson			Room 202 A-C	
Noon - 1:30	Lunch with continuing	discussions			Poster session continues from previous evening	
1:30 – 5pm	IAT meetings and To	Fours of HFIR and SNS				
Room 202 A		Room 202 B	Room 202 C		Room 219	
1:30 - 3 pm IAT Meeting: Backscattering Spectrometer Ken Herwig, SNS: Initial experiments [file] Ken Herwig, SNS: Summary [file]		1:30 - 3 pm IAT Meeting: <b>Magnetism Reflectometer</b> Frank Klose, SNS: Status of the SNS Magnetism Reflectometer [file] Hal Lee, SNS: Fast-Switching Spin- up/Spin-down 3He Neutron Polarizer: A successful test at SCD, IPNS [file]	1:30 - 3 pm IAT Meeting: Liquids Reflectometer		1:30 - 3 pm IAT Meeting: CNCS	
3:00-3:30 Break		3:00-3:30 Break	3:00-3:30 Break			
3:30 – 5pm IAT Meeting <b>Extended Q range – SANS</b> Thiyaga, ANL : <i>Summary [file]</i> Zhao, SNS: <i>EQ-SANS [file]</i>		3:30 – 5pm IAT Meeting <b>POWGEN3</b> Jason Hodges, SNS : <i>POWGEN3</i> [file] Lou Santodonato, SNS [file]	3:30 – 5pm IDT Meeting ARCS			

Thursday, October 13, 2005					
8:30 – Noon	Workshops		Room 202 A-C		
Room 202 A: <b>Reflectometry Workshop</b> John Ankner, SNS: <i>Principles of neutron reflectivity and</i> <i>soft matter [file]</i> Frank Klose, SNS: <i>Introduction to Polarized Neutron</i> <i>Reflectometry [file]</i> William Hamilton, HFIR: <i>Reflection geometry SANS</i> Jarek Majewski, LANL: <i>Single Model Biomembranes at</i> <i>Solid-Liquid Interface: Comparing Neutron and X-ray</i> <i>Scattering [file]</i>		<ul> <li>Room 202B:</li> <li>SANS Workshop:</li> <li>Volker Urban, ORNL: Introduction; SANS for Beginners [file]</li> <li>Yuri Melnichenko, HFIR: New Applications of SANS: Studying Fluid Adsorption in Nanopores [file]</li> <li>Mona Yethiraj, HFIR: Small-angle Diffraction from Magnetic Flux Line Lattices [file]</li> <li>William Hamilton, HFIR: Time resolved SANS measurements [file]</li> <li>William Heller, ORNL: SANS &amp; Modeling of Bio- macromolecular Complexes [file]</li> <li>Dean Myles, ORNL: Support Facilities Needs for Soft Matter, Infrastructure: Needs &amp; Requirements [file]</li> <li>Kevin Weiss, ORNL: The Bio-Deuteration Lab at ORNL [file]</li> <li>Michael Agamalian, SNS: Ultra-Small-Angle Neutron Scattering: A New Technique For Materials Research [file]</li> </ul>	Room 202 C:         Nanomaterials and Neutrons Workshop (chair: Linda Horton, CNMS)         Linda Horton, CNMS: Center for Nanophase Materials Sciences – Opportunities for Synergies with the Neutron Scattering User Community [file]         Ian S. Anderson, SNS: Introduction         Phil Britt, ORNL: Synergism Between Macromolecular Complex Systems Research at CNMS and SNS HFIR [file]         Anatoli Melesko, ORNL: Nanofluidics and naobio[file]         Doug Lowndes, CNMS: Functional Nanomaterials [file]         Mike Simonson, ORNL: Nanostructured Bulk Materials [file]         John Larese, Tennessee: Neutrons as a probe of molecular dynamics and chemistry at surfaces? [file]         Jian Shen, ORNL: Magnetism         Thomas Schulthess, ORNL: Theory Modeling and Data Analysis         Thomas Proffen, LANL: Total neutron scattering to obtain a 'complete' structural finger print of nano		
			particles [file] Steve Overbury, ORNL: Catalysis and Nanophase Building Blocks: CNMS as Catalysis User Center [file]		
8:30 - Noon		Tours of SNS and HFIR [if necessary]			
8:30 – Noon	Other discussions				
Noon – 1pm	Lunch for Workshop attendees and continue discussions with workshop evaluations				
1 pm	Adjourn				