

International Workshop on NANOCOMPOSITES: MATERIALS, NEUTRONS AND DATA INTERPRETATION

March 28-30, 2002

Argonne National Laboratory, Argonne, IL, USA

Background

Nanostructured materials, characterized by an assembly of functional units whose dimensions approach inter-atomic distances, exhibit many unique properties. In order to tailor these properties for nanotechnological applications, the science of nanomaterials has to be understood - from processing to atomic structure and dynamics for which neutron scattering offers unique opportunities for their characterization. Nanoscale systems are amenable to theoretical modeling such as large-scale molecular dynamic simulations and ab initio calculations.

Objective

The goal of this workshop is to identify the key nanostructured systems and their materials properties, experimental parameters, and data-interpretation schemes for neutron-scattering studies. Materials include microbiological structures, ceramics, composites, intermetallics, catalysts, polymers, complex fluids and thin films. Methodology includes advanced neutron-scattering instrumentation and computational techniques for nanoscience research. A report of the workshop will be prepared and distributed to the community and research organizations of nanoscience and technology.

Workshop Location/Website

Intense Pulsed Neutron Source, Argonne National Laboratory, Building 362 Auditorium. There will be a plenary session and a poster session in this 2-1/2 days workshop. Talks and posters can cover a wide range of materials and characterization methods. <http://www.pns.anl.gov/Workshops,etc/WorkshopPage.htm>

Workshop Fee/Deadlines

Abstract Submission Deadline: **February 15th**

Registration fee \$150 per person includes all workshop sessions. Deadline: **March 1st**

Make check payable to: Carolyn Peters - IPNS and mail to address below.

Accommodation

Argonne Guest House at Argonne National Laboratory, Building 460

Reservations: (800) 632-8990 or (630) 739-6000, E-Mail: argonne-guest-house@anl.gov

Reservations Deadline: **March 13th**

Refer to "Nanoscience Workshop" when making reservations. Workshop Room Rate: \$52.50

Refer to: <http://www.pns.anl.gov/accommodations3.html> for lodging information outside Argonne.

Program Committee

Thiyaga P. Thiyagarajan (Chair), ANL-IPNS

Axel Hoffmann, ANL-MSD

Rajiv Kalia, LSU, Baton Rouge

Jennifer Lewis, U. Illinois, Urbana -Champaign

Chun Loong, ANL-IPNS

David Lynn, Emory U., Atlanta

Jim Richardson, ANL-IPNS

Richard W. Siegel, RPI, New York

David Tiede, ANL-CHM

Luping Yu, U. Chicago

Partial List of Invited Speakers

Carolyn Aita, U. Wisconsin, Milwaukee

Lynn Boatner, ORNL

Elisabeth Bouchaud, CEA, France

Yong Duan, U. Delaware

Hicham Fenniri, Purdue U.

Axel Hoffmann, ANL-MSD

Rajiv Kalia, LSU, Baton Rouge

Jennifer Lewis, U. Illinois, Urbana-Champaign

David Lynn, Emory U., Atlanta

Thomas Mason, ORNL-SNS

Thomas Russell, U. Mass., Amherst

Marie Louise Saboungi, ANL-MSD

Richard W. Siegel, RPI, New York

Samuel Stupp, Northwestern University

Suzanne G. E. te Velthuis, ANL-MSD

Boris Toperverg, Forschungszentrum Juelich, Germany

Markus Winterer, Darmstadt U.

Gerard C.L. Wong, U. Illinois, Urbana-Champaign

Luping Yu, U. Chicago

Workshop Secretary

Carolyn Peters

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