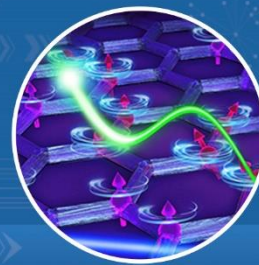
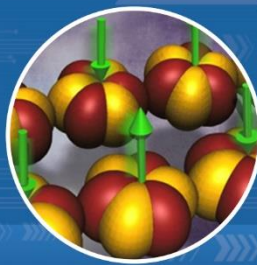
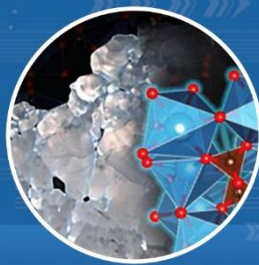
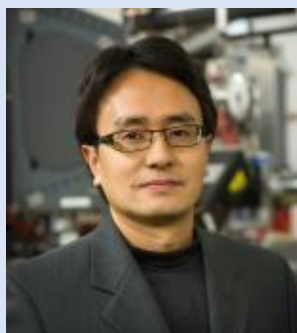


Neutron Scattering in Industrial Science and Engineering

October 26, 2017
Eastman Chemical Company



Oak Ridge National Laboratory Presenters' Biographies



Ke An, kean@ornl.gov

Dr. An is the Lead Scientist of the VULCAN instrument, Engineering Materials Diffractometer, at the SNS. Dr. An also serves as the Industrial Liaison of the Industrial Application Program of SNS and HFIR to promote the engagement of industrial users in using neutrons. He earned his Ph.D. at Virginia Tech in 2003. Dr. An is specialized on the application of neutron scattering in materials science and engineering including residual stress, deformation mechanism, phase transformation, and texture of solid materials, etc. His current research focuses on deformation behaviors in functional and engineering materials by using the advanced neutron scattering techniques.



Hassina Bilheux, bilheuxhn@ornl.gov

Dr. Bilheux is an instrument scientist on the ORNL CG-1D neutron imaging beamline, at HFIR. Her current scientific interests are in the field of materials science; in particular the study of crystalline structures using Bragg edge imaging at the SNS, a newly developed technique. She also has a strong interest in biological materials ranging for plant root/soil interactions to water dynamics in a broad range of materials. She received her PhD in physics from the University of Versailles, France. Prior to joining Neutron Sciences, Dr. Bilheux did her PhD and postdoc at the ORNL Physics Division on plasma physics.



Jim Browning, browningjf@ornl.gov

Dr. Browning is a senior research scientist in the Neutron Sciences Directorate on the Liquids Reflectometer instrument, SNS beam line 4B. His scientific interest includes the use of neutron scattering techniques to study structure-property relationships in materials relevant to energy storage and production. He studied physics at Augusta University and the University of Georgia and received his Ph.D. in Materials Science at the New Mexico Institute of Mining and Technology. Prior to joining ORNL in 2007, he was a distinguished staff member at Sandia National Laboratories where he was responsible for thin film metal hydride materials incorporated into neutron generators.



Lilin He, hel3@ornl.gov

Dr. Lilin He is a neutron scattering scientist working at General-Purpose Small Angle Neutron Scattering beam line, Oak Ridge National Laboratory (ORNL) since 2012. He completed his Ph.D. in 2008 from Clemson University, where his research focused on the structure and transport characteristics of ion containing polymers. His current research interests cover topics of gas and ion adsorption/desorption in porous media, structure of polymeric membranes and micelles, conformation and interaction of biomolecules primarily using neutron scattering techniques.



Richard Ibberson, ibbersonrm@ornl.gov

Dr. Ibberson is the acting Director for the Neutron Scattering Division in Oak Ridge National Laboratory's Neutron Sciences Directorate. Ibberson earned his Ph.D. in physics at the University of Reading, U.K., while working at the ISIS Spallation Neutron Source, Rutherford Appleton Laboratory, as an instrument scientist in the crystallography group. He served as a senior research scientist in the Department of Materials Science and Engineering, University of Maryland, and group leader for Research Facility Operations at the National Institute of Standards and Technology's Center for Neutron Research.



Anibal Ramirez-Cuesta, ramirezcueaj@ornl.gov

Dr. Ramirez-Cuesta is Coordinator of Catalysis and Interfacial Chemistry at the Neutron Scattering Division. He has been working on computational modelling of experimental data and neutron scattering. His scientific interests include lattice dynamics calculations, characterization of hydrogen storage systems, metal hydrides and porous materials using inelastic neutron scattering and ab-initio computational methods, interactions of molecules with surfaces, and the modelling of surface reactions and catalysis using classical and quantum methods as well as software development.



Crystal Schrof, schrofca@ornl.gov

Crystal is the manager of the Scientific and Program Services Office, ORNL Neutron Sciences Directorate (NScD). Crystal is responsible for NScD's User Program, Scientific Information Systems and business operations. Prior to joining NScD, she was an associate general counsel in the ORNL's Office of General Counsel. She received a JD from the University of Tennessee, a MA from the University of Illinois-Springfield and BA from Eastern Illinois University.



Volker Urban, urbanvs@ornl.gov

Dr. Urban is a physical chemist and senior neutron scattering scientist in the Large Scale Structures Group. His scientific interests and expertise include soft condensed matter, polymer synthesis and characterization, surfactants, microemulsions, composites, biological macromolecules, biomass and bio-materials and development of neutron and x-ray scattering instrumentation. He received his Ph.D. in physical chemistry from the Universität Münster, Germany. Dr. Urban worked in industrial research on nano-crystalline ceramic materials at the Robert Bosch GmbH, Germany and at neutron and x-ray scattering user facilities at Argonne National Laboratory and at the European Synchrotron Radiation Facility.