

Speaker Profile



Contact Details

Organization Name:
Pacific Northwest
National Laboratory

Address:
Box 999 MS K8-95

Town, State
Richland, WA

Postal Code: 99352

Country: USA

Phone: 509 371 6245

Fax: 509 371 6242

Email:
Don.baer@pnl.gov

Website:
www.emsl.pnl.gov

Donald R. Baer,
Laboratory Fellow, Pacific Northwest National Laboratory

Dr. Baer is Lead Scientist for Interfacial Chemistry, Environmental Molecular Sciences Laboratory (EMSL), a US Department of Energy User Facility located at PNNL. He has a Ph. D. in Physics from Cornell University and has interests in nanoparticles in the environment, characterization of nanomaterials, and nanotechnology education. He was part of a team responsible for developing the capabilities in the Interfacial and Nanoscale Sciences Facility of EMSL, has served as Co-Director of the PNNL/University of Washington Joint Institute for Nanoscience and as Deputy Manager of the PNNL Nanoscience and Nanotechnology Initiative (2001-2005). He is the PNNL coordinator of Intensive courses on Nanoscience and Nanotechnology that involve the University of Washington, Washington State University and PNNL.

Since joining PNNL in 1976, Dr. Baer has specialized in the use of surface sensitive techniques to study surface and interphase reactions and material surface chemistry. He specializes in adapting established and new surface sensitive methods to unusual problems and has more than 210 publications. Specific research activities include study of the reaction properties and environmental variability of nanoparticles, synthesis and properties of oxide nanostructures, corrosion and stress corrosion cracking, and the surface chemistry and reactivity of calcite. He has direct experience with vacuum-based surface analysis methods (XPS, AES, SIMS) and methods used for direct analysis of the solid-solution interface (atomic force microscopy, electrochemical characterization).

Dr. Baer's other activities include serving as Adjunct Professor of Physics at Washington State University, Adjunct Professor of Chemistry at the University of Washington and Associate Editor for Surface Science Spectra. He is a member of the American Vacuum Society (Fellow and past chair of Applied Surface Science Division), the American Physical Society, the Electrochemical Society, Chair of ASTM E42 Committee on Surface Analysis and serves as secretary of ISO TC 201 on Surface Chemistry SC 1.

Baer received the PNNL Directors Award for Excellence and a DOE Division of Materials Sciences Outstanding Scientific Accomplishment Award in 1992, the 2000 PNNL Fitzner-Eberhardt Award for contributions to science education and a 2001 Federal Laboratory Consortium Award for technology transfer. From 1984 to 1985 Dr. Baer was a Visiting Research Fellow in the Department of Materials Science and Engineering at the University of Surrey, Guildford, England.

