

John C. Hemminger, Ph.D.

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John C. Hemminger earned his B.S. in Chemistry from the University of California, Irvine in 1971. He obtained his M.S. in Chemistry in 1974 and Ph.D. in Chemical Physics in 1976 from Harvard University. Following two years as an NSF postdoctoral fellow at the University of California, Berkeley and Lawrence Berkeley National Laboratory, he joined the Chemistry faculty at UC Irvine, where he has been Chair of the Chemistry Department and Dean of the School of Physical Sciences. He is presently Professor of Chemistry and the Vice Chancellor for Research at the University of California, Irvine. His research has involved a diverse range of fundamental studies of the chemistry and physics occurring at surfaces and interfaces, with applications to the optical properties of nanostructured surfaces, surface reaction chemistry, catalyst performance, and atmospheric chemistry (with a particular emphasis on the liquid/vapor interface). His research is funded by the Chemistry Division of the NSF, and a program on solar energy that is a joint program of the Chemistry Division, the Division of Materials Research, and the Division of Mathematics, as well as by the U.S. Department of Energy, Office of Basic Energy Sciences. He has published over 195 peer-reviewed papers and mentored over 55 graduate students and 30 postdoctoral researchers. He is a fellow of the American Physical Society, the American Chemical Society, the American Vacuum Society, and the American Association for the Advancement of Science. He has received National Awards from the American Chemical Society (the Arthur W. Adamson award) and from the American Vacuum Society (the Medard W. Welch award). He is a recipient of an Alexander von Humboldt Senior Scientist Award.

Since 2003 he has served as Chair of the Basic Energy Sciences Advisory Committee (BESAC) of the DOE Office of Science. During this period he has helped to develop and has guided the publication of the influential BESAC reports: “Directing Matter and Energy: Five Challenges for Science and the Imagination”, “New Science for a Secure and Sustainable Energy Future”, “Science for Energy Technology: Strengthening the Link between Basic Research and Industry”, the BESAC report “From Quanta to the Continuum: Opportunities for Mesoscale Science”, and the most recent BESAC report on “The Future U.S. X-ray Light Source Facilities. He has served as Chair of the Surface Science Division of the American Vacuum Society (1995), the Division of Physical Chemistry of the American Chemical Society (2003), and Chair of the Chemistry Section of the American Association for the Advancement of Science (2007). He presently serves as a member of standing review committees for Brookhaven National Laboratory, Argonne National Laboratory, Oak Ridge National Laboratory, Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Lawrence Berkeley National Laboratory, Stanford University and SLAC, and Pacific Northwest National Laboratory. He is a member of the board of the California Council on Science and Technology.