

## BIOGRAPHY

### Dr. Richard H. Stulen

*Vice President, Energy, Climate and Infrastructure Security Strategic Management Unit  
Sandia National Laboratories, California*



Dr. Richard Stulen is vice president of Sandia's California laboratory and Energy, Climate and Infrastructure Security Strategic Management Unit. The division's principal programs include nuclear weapons stewardship; homeland security with a focus on defending against weapons of mass destruction; combustion, transportation, and hydrogen energy research; microfluidics design; and advanced computational and information systems. Sandia is a multiprogram Department of Energy (DOE) laboratory managed by Lockheed Martin Corp.

After joining Sandia in 1976, Dr. Stulen helped establish Sandia's first synchrotron radiation research effort, which investigated the properties of hydrogen on surfaces in relation to Sandia's hydrogen storage programs. In 1984, he became the manager of Sandia's Surface Science and Chemical Physics Department, where he managed the materials portion of the Basic Energy Sciences Program.

In the early 1990s, Dr. Stulen helped initiate one of Sandia's first cooperative research-and-development agreements (CRADAs) under DOE's Technology Transfer Initiative. This CRADA, an agreement to develop compact radiation sources for next-generation lithography options in microelectronics manufacturing, led to the formation of the Extreme Ultraviolet Lithography (EUVL) Program and an industry-funded \$300 million, three-lab CRADA with Lawrence Livermore and Lawrence Berkeley national laboratories. Dr. Stulen served as deputy director of science-based engineering and technology and was the chief executive officer and the chief operating officer of the EUVL Virtual National Laboratory, a consortium of the three national labs.

Dr. Stulen was promoted to become the director of materials and engineering sciences in 2001. In 2003, he assumed leadership of the Exploratory Systems and Development Center, which became the Center for Homeland Security Systems and Development. In 2005, Dr. Stulen was promoted to vice president of science and technology and served as Sandia's chief technology officer, as well as chief scientist for Sandia's Nuclear Weapons Program. He led and managed research, development, and engineering in nanosciences, materials and process sciences, microelectronics/microsystems and optoelectronics, advanced manufacturing, computational sciences, engineering sciences, radiation sciences, modeling and simulation science, and high-energy-density physics.

Dr. Stulen graduated from the University of Michigan with a bachelor's degree in physics and received his Ph.D. in solid-state physics from Purdue University. Throughout his career, Dr. Stulen has organized and chaired international workshops and has published extensively in areas related to surface science and EUVL. He is also a recipient of Lockheed Martin's prestigious NOVA award for Technical Excellence, an honor bestowed upon him in 1999.