



Paul S Peercy

PAUL S. PEERCY

1940–2016

Elected in 2001

“For significant fundamental discoveries, important new measurement techniques, and visionary leadership in creating and managing outstanding laboratories in materials research.”

BY THOMAS F. KUECH

PAUL STUART PEERCY, a leader in research, industry, and education, died October 20, 2016, at the age of 75.

Born November 26, 1940, in Monticello, Kentucky, the third of six children of Robert and Ernest (Bell) Peercy, Paul grew up on the family farm. He earned his bachelor of science in physics from Berea College and his MS and PhD in physics from the University of Wisconsin–Madison (UW). His thesis, “Helicon Propagation in Indium Antimonide and Gray Tin,” marked the beginning of his lifelong interest in solid state materials and the technologies used to exploit them. His graduate study experience also began a lifelong relationship with the university and Madison communities.

While at UW, he met business major Cathy Christen of nearby Dodgeville. They married in 1965 and had two sons, Michael and Mark.

After graduation Paul did postdoctoral research at Bell Laboratories (1966–68) until he left to join the staff at Sandia National Laboratories in Albuquerque.

Starting at Sandia as a research staff member, Paul rose to serve in a variety of leadership roles. His early research interests spanned the diverse topics of phase transitions in solids, ferroelectricity, Raman and Brillouin scattering, and many aspects of electronic materials and their applications,

including ion-solid interactions, laser-induced phase transformations, microelectronics and photonics, and devices. His broad interests and technical expertise enabled his leadership in the subsequent management of research groups across Sandia's science and technology areas, ranging from ion-solid interactions to compound semiconductor device research, and led to his deep understanding of materials technologies.

He became director of microelectronics and photonics at Sandia in 1991, with responsibilities for silicon, compound semiconductor, sensor, and packaging R&D. In 1993 he formed the lab's Center for Microelectronics Technologies by combining a major donation of integrated circuit fabrication equipment and technology from IBM with facilities in Sandia's Microelectronics Development Laboratory. Microelectronics and photonics became a major area of interaction with industry, with more than 60 cooperative research and development agreements coupling industry with research expertise and activities at Sandia.

In 1995 Paul left Sandia to become president of SEMI/SEMATECH, later called the Semiconductor Industry Suppliers Association (SISA), in Austin; SISA focuses on the US supplier value chain to the global semiconductor industry. Paul provided visionary leadership to the organization at a critical juncture associated with the shift from federal to industrial support.

In 1999 Paul was appointed dean of the College of Engineering at UW Madison, a position he held until 2013. He was an educational leader who, early on, understood and advocated for the changing nature of engineering training at both the national and state levels. He worked tirelessly to advance the college as a forefront research and educational institution and as a leader in both existing and emerging research fields. He was committed to preparing the college to take full advantage of the changes in the engineering field while continuing its tradition of academic and ethical excellence.

He often said, "As once-separate engineering disciplines merge, we must capitalize on opportunities available with the rapid increase in interdisciplinary work. Distinctions between engineering and other scientific areas also are blurring." This

interdisciplinary nature is now part of the US engineering education and research landscape.

In addition, he recognized diversity in STEM fields as critical to national success and actively sought its expansion. He believed in the necessity of offering the opportunities of an engineering and science education to all citizens. As part of his commitment, he supported and helped to establish UW's Women in Science and Engineering Leadership Institute (WISELI), with the long-term goal of having the gender balance of faculty, chairs, and deans reflect that of the community.

He was also passionate about rethinking and reorganizing educational goals and methods. As an early proponent of the integration of electronic delivery of engineering instructional materials to enhance traditional modes of content delivery, he promoted such new modes of delivery at the college. He founded the Wisconsin Collaboratory for Enhanced Learning (WisCEL) to pioneer the use of instructional resources, technology, and multiuse student-centered learning environments on campus.

Paul was deeply committed to efforts to help students succeed in engineering. Shortly after he became dean he founded the engineering Undergraduate Learning Center (ULC) to support students enrolled in challenging foundational engineering courses. The center has since expanded to offer educational support for hundreds of students in more than 50 engineering, math, and science courses. To further encourage undergraduate student excellence, he and his wife established the Dean Emeritus Paul S. and Catherine B. Percy Undergraduate Tutoring Fund, an annual scholarship for an outstanding ULC tutor.

Paul's enthusiasm for engineering education extended to precollege students as well. He was a great supporter of the K-12 National Science Olympiad, and in 2011 hosted it in Madison to promote interest in STEM-based studies.

As dean, Paul worked with local industries and served on advisory boards to support their development. He was appointed by the governor to the Wisconsin Technology and Entrepreneurship Council to assist in fostering and advising industry statewide.

The list of Paul's professional contributions is long and impressive—many science and engineering professional organizations benefited from his involvement. He served as chair of the American Society for Engineering Education Deans Council; councilor to the American Association for the Advancement of Science (AAAS), Materials Research Society (MRS), and American Physical Society (APS); and MRS vice president, among other leadership positions.

In addition, his advice and guidance were sought by government committees and agencies. For example, he chaired the National Research Council's Committee on New Materials Synthesis and Crystal Growth, which produced the report *Frontiers in Crystalline Matter: From Discovery to Technology* (2009), and cochaired the NRC committee that produced the 2015 report *Peer Review and Design Competition in the NNSA National Security Laboratories*. He also served on the NRC's National Materials and Manufacturing Board (2010–13), Committee on Condensed-Matter and Materials Physics (1996–99), Board on Manufacturing and Engineering Design (1995–98), and Committee on New Sensor Technologies: Materials and Applications (1991–95), among others.

He received many honors. In addition to his election to the NAE, he was a distinguished member of the Tau Beta Pi Engineering Honor Society; a member of the New York Academy of Sciences; and a fellow of the Institute of Electrical and Electronics Engineers, APS, and AAAS. His professional service was recognized through the MRS Woody White Service Award in 1992 (at the time called the Woody Award).

Paul Percy was a modest, energetic, and dedicated engineer, educator, and citizen. Those around him benefited from his sense of humor and ever present willingness to help. He was a humble leader who viewed education and mentorship as part of his service to his community. He is missed greatly by those who knew him and shared in his enthusiasm for science, service, and education.

He is survived by Cathy, Michael (Suzanne Kuo), and Mark (Shellie); and grandchildren Nathan, Brendan, Aaron, Kevin, and Jaden.

