



*Spectrum, Physics Today, Materials Today, Accounts of Chemical Research, and Industrial Physicist.* He has trained many postdoctoral researchers who have gone on to academic and industrial positions around the world.

Avouris received his BSc degree in chemistry from the Aristotle University in Greece (1968) and his PhD degree in physical chemistry from Michigan State University (1974). After postdoctoral work in physical chemistry at the University of California–Los Angeles and AT&T Bell Labs, he joined the IBM Research Division in 1978 and became manager

of Chemical Physics in 1984. He is currently an IBM Fellow and manager of Nanoscience and Nanotechnology. He has also been an adjunct professor at Columbia University and the University of Illinois at Urbana-Champaign.

Avouris is a member of the American Academy of Arts and Sciences and the Academy of Athens, as well as a senior member of IEEE and a fellow of the American Physical Society, the U.K. Institute of Physics, the American Association for the Advancement of Science, the American Vacuum Society, the New York Academy of Science, and the

World Technology Network. His honors include the Irving Langmuir Prize for Chemical Physics (American Physical Society), the Medard W. Welch Award (American Vacuum Society), the IEEE Nanotechnology Pioneer Award, the Richard Feynman Prize for Nanotechnology (Foresight Institute), the Richard E. Smalley Prize (Electrochemical Society), the Julius Springer Award for Applied Physics, the AVS Nanotechnology Research Award, the IBM Pat Goldberg Memorial Award, and many IBM Outstanding Technical Achievement awards.



## Peidong Yang named 2011 MRS Medalist for nanowire research

The Materials Research Society has named Peidong Yang of the University of California–Berkeley and founder of Alphabet Energy, Inc., as MRS Medalist. He was cited for “outstanding contributions in the creative synthesis and assembly of semiconductor nanowires and their heterostructures, and innovations in nanowire-based photonics, thermoelectrics, solar energy conversion and nanofluidic applications.” Yang will be recognized during the awards ceremony at the 2011 MRS Fall Meeting in Boston, where he will also give an award talk on “Semiconductor nanowires for solar energy conversion.” Yang will give his presentation on Wednesday, November 30 at 12:15 p.m. in the Grand Ballroom of the Sheraton Hotel.

Yang, an MRS fellow and former recipient of the MRS Outstanding Young Investigator Award, has contributed

broad-ranging breakthroughs to nanoscience and nanotechnology. He developed new and general approaches for the synthesis of metal oxide and semiconductor nanowires which opened significant opportunities for fundamental studies of the optical and electronic properties of quantum-confined and periodic systems, and applications of these materials for nanoelectronics and nanophotonics. His seminal optical studies of zinc oxide nanowires mark the discovery and demonstration of the first nanoscale laser in which the nanowire itself defines the optical cavity.

In the area of nanophotonics, Yang recently made seminal contributions to renewable energy through his studies of a nanowire-enabled dye-sensitized solar cell and a core-shell nanowire solar cell. By introducing the novel idea of a nanowire-based solar cell, Yang has

demonstrated an ideal platform to independently study and optimize light absorption, charge separation, and charge collection. More recently, his group has been exploring the possibility of using the high-surface-area nanowire arrays as photoelectrodes for the purpose of artificial photosynthesis. Yang is currently the Department Head and North Site Director of the Department of Energy, Joint Center of Artificial Photosynthesis.

After receiving a BS degree in chemistry from the University of Science and Technology of China (1993) and a PhD degree in chemistry from Harvard University (1997), Yang did postdoctoral research on mesoporous materials at the University of California–Santa Barbara. He began his faculty appointment at Berkeley in 1999. Yang is an Alfred P. Sloan research fellow (2001–2004), and has been awarded a Camille Dreyfus New Faculty Award, the Arnold and Mabel Beckman Young Investigator Award, the National Science Foundation (NSF) Young Investigator Award, ExxonMobil Solid State Chemistry Fellowship, Dupont Young Professorship, Julius Springer Prize for Applied Physics, the American Chemical Society Pure Chemistry Award, Baekeland Medal, and the NSF Waterman Award.