WE HEAR THAT

Shechtman to Receive 1999 Wolf Prize in Physics

The Wolf Foundation, headquartered in Herzlia, Israel, has announced that **Dan Shechtman** will be awarded the 1999 Wolf Prize in Physics. A professor of materials engineering at the Technion—Israel Institute of Technology in Haifa, Israel, Shechtman is being honored "for the experimental discovery of quasicrystals, nonperiodic solids having long-range order, which inspired the exploration of a new fundamental state of matter." The prize, which includes $100 000, will be conferred by the president of Israel in a ceremony in May.

DAN SHECHTMAN

Contrary to the long- and deeply held belief that all ordered three-dimensional arrangements of atoms have either two-, three-, four- or sixfold symmetry, Shechtman discovered macroscopic alloys possessing fivefold symmetry. His claim was initially received with disbelief, and the citation praises Shechtman for "[having] the courage to defend his experimental results in the face of severe adverse criticism." The discovery has had a profound influence on the course of research in materials and crystallography, creating an interdisciplinary wave of studies worldwide. Among the novel practical uses of quasicrystalline materials being developed are additives for strengthening steel and aluminum composites and surface coatings for turbine engines and reduced-stick cookware.

National Academy of Sciences to Present 1999 Awards

At its annual meeting in Washington, DC, next month, the National Academy of Sciences will honor 17 individuals for their contributions to science, including 7 for work in the physical sciences.

The academy's highest honor, the Public Welfare Medal, will be presented this year to **Arnold O. Beckman**, the founder and retired chairman of Beckman Instruments Inc. Beckman will be recognized "for his leadership in the development of analytical instrumentation and for his deep and abiding concern for the vitality of the nation's scientific enterprise."

John Clarke, who holds the Luis W. Alvarez Memorial Chair for Experimental Physics at the University of California, Berkeley, will be the recipient of the Comstock Prize in Physics, awarded approximately every five years. Clarke was chosen "for his major contributions to the development of superconducting quantum interference devices (SQUIDs) and their use for scientific measurements, especially involving electricity, magnetism, and electromagnetic waves."

The Arctowski Metal, awarded every three years to further research in solar physics and solar–terrestrial relationships, will be given to **Arthur J. Hundhausen**, a senior scientist emeritus at the National Center for Atmospheric Research's High Altitude Observatory in Boulder, Colorado. Hundhausen is being cited for "his exceptional research in solar and solar-wind physics, particularly in the area of coronal and solar-wind disturbances."

Awarded approximately every three years, the Robertson Memorial Lecture will be given this year to **Akkihebal R. Ravishankara**, the program leader for atmospheric chemical kinetics at the National Oceanic and Atmospheric Administration's Aeronomy Laboratory. Ravishankara will be honored "for his fundamental contributions to quantifying atmospheric chemical processes, which have led to dramatic improvements in our understanding of global chemical changes."

John D. Roberts, the Institute Professor of Chemistry, Emeritus and a lecturer at Caltech, will receive the annual NAS Award in Chemical Sciences. Roberts is being recognized for "defining modern physical organic chemistry—the integration of physical chemistry and organic synthesis applied to the study of the relations between the structure and reactivity of organic molecules."

Jan Smit, a professor of sedimentary geology at the Free University in Amsterdam, The Netherlands, will receive the Mary Clark Thompson Medal "for establishing the sequence of impact-generated events that occurred 65 million years ago, including ejecta fallout, tsunami propagation, geochemical disturbances, and extinction in foraminifera and dinosaurs." The medal is presented every three to five years.

The Arthur L. Day Prize and Lectureship, awarded approximately every three years, will go to **Sean C. Solomon**, the director of the department of terrestrial magnetism at the Carnegie Institution of Washington. Solomon will be recognized "for his analysis of seismological data constraining the tectonics of the Earth's lithosphere, and for his development of global tectonic models of the moon and terrestrial planets."

The NAS Award for Chemistry in Service to Society, presented every two years, will go to **C. Grant Willson** for "his fundamental contributions to the chemistry of materials that produce micropatterns in semiconductors and for its widespread application in the microelectronics industry for the benefit of society." Now retired from IBM's Almaden Research Laboratory, Willson holds the Rashid Engineering Regents Chair in the department of chemical engineering and is a professor of chemistry and biochemistry at the University of Texas at Austin.

AAAS Honors Scientific Achievement

The American Association for the Advancement of Science presented its 1998–1999 awards in January at its annual meeting in Anaheim, California. Among the scientists and engineers honored was **Mary Lowe Good**, the association's new president-elect. She was awarded the 1998

Philip Hauge Abelson Prize for—in the words of the citation—"her outstanding achievements in education, research, R&D management and public service, spanning the academic, industrial and government sectors." The first woman ever to receive the prize, Good is the managing member of Venture Capital Investors LLC in Little Rock, Arkansas. She is also the Donaghey University Professor at the University of Arkansas at Little Rock, and is scheduled to become the interim dean of the university's College of Science and Engineering Technology once it is established. Previously, she was undersecretary for technology in the Department of Commerce during President Clinton's first term.

Joel Lebowitz, the George William Hill Professor of Mathematics and Physics and director of the Center for Mathematical Sciences Research at Rutgers University, was recognized with the 1999 AAAS Scientific Freedom and Responsibility Award. The citation praised "his tireless devotion to the rights of scientists in oppressive regimes throughout the world and his extraordinary creativity in finding ways to help these scientists survive their ordeal."

Four AIP Science Writing Awards Announced

The American Institute of Physics has announced the winners of three science writing awards for 1998 and one for 1999.

The 1998 Journalist Science Writing Award is being shared by **Robyn Suriano** and **Todd Halvorson** for "Cassini: Debating the Risks." Their eight-page special report appeared in the 14 September 1997 issue of *Florida Today*. Suriano and Halvorson are staff writers at the newspaper.

Leonard Susskind, a professor of physics at Stanford University, is the recipient of the 1998 Scientist Science Writing Award for his article "Black Holes and the Information Paradox," which appeared in the April 1997 issue of *Scientific American*.

Barbara Taylor, the author of many children's science books, is receiving the 1998 Children's Science Writing Award for *Earth Explained: A Beginner's Guide to Our Planet* (Holt, 1997). The book describes the internal and external forces that affect Earth, the planet's landforms and the effects of humans on the environment.

The 1999 Children's Science Writing Award is going to **Elaine Scott**, a Texas-based author, for *Close Encounters: Exploring the Universe with the Hubble Space Telescope* (Hyperion, 1998), in which she explains the importance of the images received from the HST and what is being learned from them.

In Brief

The Institute for Theoretical Physics at the University of California, Santa Barbara, has selected seven scientists as ITP Scholars for 1999–2001. The program supports the research efforts of faculty at US colleges and universities that are not major research institutions. The selected scholars are **Emory Bunn** of Bates College, **Sasha Dukan** of Goucher College, **David Kastor** of the University of Massachusetts Amherst, **Ramzi Khuri** of the City University of New York's Baruch College, **William Putikka** of Ohio State University, Mansfield, **Eugene Shender** of the College of San Mateo, and **Jennie Traschen** of the University of Massachusetts Amherst.

The vice president of Sandia National Laboratories, **Gerold Yonas**, is the recipient of the 1998 Beams Prize Award of the International Conference on High-Power Particle Beams, "in recognition of his leadership in the area of pulsed power, high-power particle beams and intense sources of radiation, and his nurturing and encouragement of the pulsed power community for more than 20 years."

The Science and Technology Foundation of Japan has awarded the 1999 Japan Prize for Molecular Recognition and Dynamics in Bioscience to two researchers at Harvard University. **Jack L. Strominger**, the Higgins Professor of Biochemistry, and **Don C. Wiley**, a professor of biochemistry and biophysics, have been recognized for the isolation, crystallization and elucidation of the three-dimensional structure of human histocompatibility complex molecules, the principal structures involved in mediating immune recognition. At the presentation ceremony next month in Tokyo, each professor will receive a citation, a medal and ¥25 million.

Several new names are being added to the faculty roster at Stanford University. **Stephen Shenker** left Rutgers University last September to become a professor of physics at Stanford and the director of the university's new Institute for Theoretical Particle Physics. **Sarah Church**, previously a senior research fellow at Caltech, joined the Stanford physics department as an assistant professor in January. And **Steven Block**, a professor of molecu-