

in several years Epstein and his team made what is widely regarded as the most significant scientific contribution in the history of stable isotope geochemistry: they measured the temperature coefficient of the oxygen isotope exchange reaction between  $\text{CaCO}_3$  and  $\text{H}_2\text{O}$  and developed astonishingly precise methods to measure oxygen isotope ratios of marine carbonate fossils. This allowed them to calculate the temperatures of the ancient oceans more than 70 million years ago.

In 1952, when Harrison Brown left Chicago to start the geochemistry program at Caltech, he invited Epstein to join him. Over the succeeding years at Caltech, Epstein explored a variety of uncharted scientific terrains, welcoming the prospect of applying the newly developed techniques and principles of stable isotope chemistry to almost every aspect of natural science. He applied oxygen, carbon, hydrogen, and silicon isotope studies to problems of botany, plant and animal physiology, photosynthesis, biochemistry, meteorology, Pleistocene climatology, glaciology, and ore deposits. He wrote many papers on igneous, metamorphic, and sedimentary petrology and carried out important research on the Antarctic and Greenland ice sheets, on isotope geothermometry, on modern geothermal systems, and on the origin of meteorites, tektites, and lunar rocks and minerals.

Epstein was a recipient of the Goldschmidt Medal of the Geochemical Society in 1977, the Day Medal of the Geological Society of America in 1976, the Wollaston Medal of the Geological Society of London in 1977, and the Urey Medal of the European Association of Geochemistry in 1995. In 1976, he was elected to both the National Academy of Sciences and the

American Academy of Arts and Sciences, and in 1997, he was elected a fellow of the Royal Society of Canada.

Epstein retired from teaching in 1990, but up until a few months ago, he continued to work full time in the lab every day. He is survived by his wife, Diane, two sons, Reuben and Albert, and three grandchildren. A memorial service will be held sometime in the coming months. □ —RT

## HONORS AND AWARDS

David Baltimore, president of Caltech, has been named a 6th Annual Eddy Award winner for both his and Caltech's "contributions in bringing the fields of education, research and professional employment together" in the Los Angeles County area. He will receive the honor on November 14 from the Los Angeles County Economic Development Corporation, at a dinner and awards program at the Beverly Hilton Hotel.

Kaushik Bhattacharya, professor of applied mechanics and mechanical engineering, and Hideo Mabuchi, associate professor of physics, were both selected to participate in the National Academy of Engineering's seventh annual Frontiers of Engineering Symposium, held September 13–15 at the National Academies' Arnold and Mabel Beckman Center in Irvine, California. "The program brings together outstanding engineers (ages 30–45) from industry, academia, and government to discuss pioneering technical work and leading-edge research in various engineering fields and industry sectors." This symposium featured topics in the areas of aeronautics and aerospace, civil systems, wireless communications, and technology and the human body.

The 2001 ASCIT (Associated Students of Caltech) Teaching Awards have gone to Oscar Bruno, professor of applied and computational mathematics, Dirk Hundertmark, Taussky-Todd Instructor in Mathematics, Edward McCaffery, visiting professor of law, Thomas Neenan, lecturer in music, and Charles Peck, professor of physics. At the same time, George Cheron, lecturer in Russian, and Glen George, lecturer in computer science and electrical engineering, have been honored with ASCIT Lifetime Achievement Awards.

Emmanuel Candes, assistant professor of applied and computational mathematics, has been selected to receive an Alfred P. Sloan Research Fellowship, which carries with it a grant to be used in a flexible and largely unrestricted manner. Sloan recipients are selected on an extraordinarily competitive basis from a group of nominees representing the very best of young scientists.

David Chan, assistant professor of biology and Bren Scholar, has been named a Rita Allen Foundation Scholar. The award carries a \$50,000 stipend for up to three years. A graduate of Harvard Medical School and MIT, Chan joined Caltech in

networks, computer systems, and artificial intelligence, among others.

Yizhao T. Hou, professor of and executive officer for applied and computational mathematics, has received the Wilkinson Prize from the Society for Industrial and Applied Mathematics.

Nick Nichols, director of Caltech's Industrial Relations Center, has been invited to participate in the Leadership Program on Japan. Sponsored by the Japanese Ministry of Economy, Trade and Industry, the program brings together each year 12 participants from abroad to meet with Japanese business leaders and government officials. The program involves visits to a number of prominent Japanese industries and discussions on the key economic, market, and business issues facing Japan in its international relationships.

John Preskill, professor of theoretical physics, has been named the Andrejewski Lecturer for the fall of 2001. He will travel to Berlin to deliver a series of three 90-minute lectures on quantum computation. □

January 2000. He specializes in research on mitochondria, components of the cell that are important in energy metabolism and also in programmed cell death.

Judith Cohen, professor of astronomy, has received the Fullam Award from the Dudley Observatory, in Albany, New York. The award provides up to \$10,000 for "encouragement and support for an innovative research project in astronomy or astrophysics."

James Gates, visiting professor of physics, was one of five speakers who participated in the first Isaac Asimov Memorial Panel Debate. Held last February 13 at the American Museum of Natural History, the debate was on the "Theory of Everything."

Steve Gubser, professor of theoretical physics, has received the Gribov Medal, the highest award given by the European Physical Society to young scientists for theoretical work in the field of high-energy particle physics.

Jason Hickey, assistant professor of computer science, has received an Okawa award from the Okawa Foundation for Information and Telecommunications. Carrying a grant of \$10,000, the award honors young researchers in areas such as communication



## O'ROURKE NAMED NEW VP

Robert L. O'Rourke of Pasadena has been named Caltech's vice president for public relations. The newly created position reports directly to President David Baltimore and oversees all of the Institute's public relations operations.

O'Rourke has served as head of public relations at the Institute since 1986, most recently as associate vice president for institute relations, a title he held since 1996.

He has had 28 years of experience in the nonprofit public relations field, beginning with the West Allis Memorial Hospital and University of Wisconsin Center for Health Sciences in Wisconsin, the Medical College of Pennsylvania, and later as press secretary to the president at Boston University.

As vice president, O'Rourke is in charge of electronic media publications, government and community relations, media relations, periodicals (which includes *E&S*), publications, public events, and the visitor's center.

He has successfully strengthened the connection between Caltech and the Southern California community by establishing programs that involve Caltech in community activities and that bring

the public to campus. He has increased awareness of public events programming at Caltech, established the Institute's first department for web publishing, and introduced the work of Caltech researchers to the external community with such programs as the annual Biology Forum.

President Baltimore made the announcement to the campus October 1. "Since before I had even arrived at Caltech, Bob has been an advisor to me on all questions about public relations. He has been thoughtful in his approach to handling complicated issues and has gone out of his way to make friends for Caltech. It is clear that he loves the place and is able to send its message widely and effectively. Promoting him to vice president will give him greater visibility and authority as Caltech moves forward," he said.

O'Rourke has served in numerous community organizations, including the Pasadena Chamber of Commerce, the Pasadena World Cup Strategic Planning Committee, Pasadena Forward, Los Angeles World Affairs Council, and Breakfast Forum. In 1987 he was a founder of the Pasadena Pops Orchestra. □ —JP