

icine in London.

Jacob Palis, professor at the Institute for Pure and Applied Mathematics in Rio de Janeiro, Brazil.

Michael J. D. Powell, John Humphrey Plummer Professor of Applied Numerical Analysis at the University of Cambridge.

Jean-Michel Saveant, director emeritus of research at CNRS in Paris.

Ewine F. Van Dishoeck, professor of molecular astrophysics at Leiden Observatory at the University of Leiden in the Netherlands.

IN BRIEF

Eugene L. Tattini will become the Jet Propulsion Laboratory's deputy director in August, succeeding **Larry N. Dumas**, who will be retiring after nine years in that position. Tattini, who joined JPL this month to spend several weeks in orientation before taking his new post, was commander of the Space and Missile Systems Center at Los Angeles Air Force Base. He retired from the Air Force after nearly 36 years of service.

Orlando Figueroa became the acting director of NASA's Mars exploration program, Office of Space Science, at NASA headquarters in Washington, DC, this past May. Formerly the deputy chief engineer for systems engineering at NASA headquarters, Figueroa replaced **G. Scott Hubbard**, who is now the deputy center director for research at NASA's Ames Research Center at Moffett Field, California.

At a ceremony in May in Canberra, the Australian Academy of Sciences awarded **Bruce Hobbs** the Jaeger Medal for "investigations of a high order into the solid earth or oceans of Australia," according to the citation. Hobbs is deputy chief executive of the minerals and energy research sector of CSIRO, the Commonwealth Scientific and Industrial Research Organization, in Perth, Australia.

Last month, the Ho-Am Foundation, located in South Korea, presented awards to winners in five categories at a ceremony in Seoul. Of those winners, two are doing physics-related work. **Edward C. Lim**, Goodyear Professor of Chemistry at the University of Akron, received the 2001 Ho-Am Prize for Science in recognition of "his distinguished contribution to and pioneering research in laser spectroscopy and photophysics of organic molecules, which resulted in his discovery of the proximity effect governing the rate of

electronic relaxation in photoexcited organics," according to the foundation. **Dong Nyung Lee**, a professor of materials science and engineering at Seoul National University, won the 2001 Ho-Am Prize for Engineering, which acknowledged "his distinguished contribution to the field of metallic materials and his discovery of the strain energy release maximization theory explaining the transformation of fabrication textures into recrystallization textures." Each honoree received a diploma, gold medal, and 100 million won (about \$77 000).

OBITUARIES

Marcus Laurence Elwin 'Mark' Oliphant

Marcus Laurence Elwin "Mark" Oliphant, a leader during World War II in both radar development and the separation of uranium-235 for the atomic bomb, died on 14 July 2000 in Canberra, Australia, of natural causes.

Oliphant was born in Adelaide, South Australia, on 9 October 1901. In 1927, he received an MSc in physics at Adelaide University and won an 1851 Exhibition scholarship for research abroad. He joined Ernest Rutherford's group at the Cavendish Laboratory in Cambridge, England. He received a PhD in physics there in 1929; his thesis topic was the interaction of positive ions with metal surfaces.

In 1932, Oliphant began nuclear research with Rutherford, using 0.5 milliliters of heavy water given to Rutherford by Gilbert Lewis of the University of California, Berkeley. With a 300-keV accelerator, Oliphant and Rutherford investigated the transmutation of light nuclei, bombarding them with protons and deuterons (heavy hydrogen). Remarkably, with deuterated targets, "protons" of anomalously large range were emitted jointly with very slow protons. Oliphant and Rutherford realized that these "protons" were "still-heavier hydrogen," which they named "tritium," and that the "alpha particles" they saw were helium-3.

Oliphant joined Birmingham University in 1937 as Poynting Professor of Physics. While visiting primitive radar stations around Britain's coast, he realized that much finer radar was needed urgently. Early in 1939, he obtained a grant from the British Admiralty to develop radar with a wavelength less than 10 cm; the best available at the time was 150 cm.

Fusion researcher and plasma diagnostics specialist **Kenneth Young** received the US Department of Energy's Distinguished Associate Award in April at a dinner in Princeton, New Jersey. The occasion was his retirement that same month as head of international collaborations at the Princeton Plasma Physics Laboratory. The DOE citation acknowledged, in part, that his "dedicated efforts have had a major impact on the diagnostics systems that bind theory and experiment together in advancing fusion." Young had joined the lab in 1974.



MARCUS L. E. "MARK" OLIPHANT

That same year, he visited the Radiation Laboratory at Berkeley, California, where he met Ernest Lawrence, who would become a major influence in Oliphant's life. Oliphant was impressed by Lawrence's 60-inch cyclotron. Lawrence kindly gave him a complete set of specifications. In mid-1939, having gained funding, Oliphant began to build a 60-inch cyclotron at Birmingham. This project progressed slowly because of the war. An internal beam was achieved in 1950.

Congratulating Lawrence on his 1939 Nobel Prize in Physics for the invention of the cyclotron, Oliphant wrote, "[Your Nobel] Prize shows that the technical side of the subject is now recognized as of equal importance to the advances that follow from [their use]." This view would soon govern Oliphant's scientific life.

On radar research at Birmingham, John Randall and Harry Boot soon invented the resonant-cavity magnetron. In early 1940, their model