

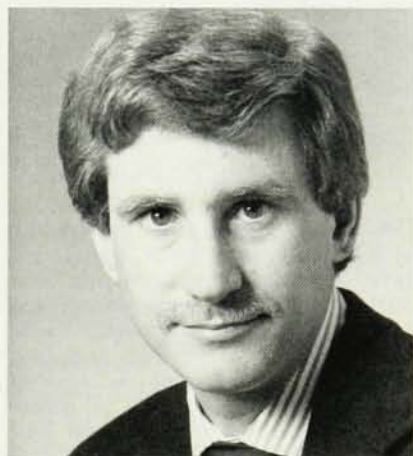
we hear that

TI Founders' Prize to Winograd

The Texas Instruments Foundation last year presented the 1984 Founders' Prize to Nicholas Winograd (Pennsylvania State University) for his work in surface science. The prize of \$50 000 is given in recognition of outstanding achievement in the physical, health and management sciences, engineering and mathematics, and was established in honor of TI founders J. Erik Jonsson, Cecil H. Green, the late Eugene McDermott and the late former chairman Patrick E. Haggerty.

Winograd received his PhD in chemistry from Case Western Reserve University in 1970. He then joined Purdue

University as an assistant professor of chemistry, becoming an associate professor in 1975. He joined Pennsylvania State as a professor of chemistry in 1979, and he helped establish a center there for the study of the interaction of particle beams and solid surfaces. Most recently Winograd has developed a tandem technique for detecting impurities on solid surfaces: Individual atoms and molecules are forced off a solid's surface by particle bombardment and are then counted using multiphoton resonance ionization. The technique finds application in the manufacture of computer chips of high quality.



WINOGRAD

Burbidge named 1985 Jansky lecturer by NRAO

The National Radio Astronomy Observatory named Geoffrey Burbidge (University of California at San Diego) as the 1985 Karl G. Jansky lecturer. Burbidge received his PhD in 1951 from University College, London, and worked at Harvard University, Yerkes Observatory of the University of Chicago, Cambridge University and Caltech before coming in 1962 to San Diego, where he is now professor of physics emeritus. Burbidge is known for his pioneering work in stellar evolution, nucleosynthesis and work on many aspects of high-energy astrophysics. He was director of Kitt Peak National Observatory for the period 1978-84. Burbidge has served as editor of *Annual Review of Astronomy and Astrophysics* since 1973.

valac since 1984. John J. Gilman was named an associate director of the lab and director of the Center for Advanced Materials. Prior to this appointment Gilman had been manager of corporate research at Amoco Corporation. Klaus Berkner was named associate director and head of the lab's accelerator and fusion-research division. Berkner, a physicist at LBL since 1964, had been

acting head of the lab's Neutral Beam Engineering Test Facility for the preceding year.

The Space Foundation in November presented the 1985 Space Progress Pioneer Award to Hermann Oberth for his early research in liquid propulsion and space systems, which laid the foundation for the Apollo project.

obituaries

Philip M. Morse

Philip M. Morse died suddenly on 5 September 1985. He was 82.

His early years were spent in Cleveland, Ohio. He must have been a most precocious young man, operating his own radio supply and repair shop when he was only 20. As a student at what was then the Case School of Applied Science, he assisted Dayton Miller in his improved experiment on the Michelson-Morley effect. It was at Case that his lifelong interest in acoustics began. Morse received his BS in 1926, and pursued his graduate studies at Princeton University. It was a very exciting time, as the new quantum mechanics was the focus of attention. Morse was involved in developing the

theoretical understanding of the Davisson-Germer experiment; he wrote several papers alone and with Ernst Stueckelberg on molecular physics—in one of these he developed the "Morse potential." With Edward U. Condon he wrote the first American text on quantum mechanics. His postgraduate studies involved a period abroad studying with Arnold Sommerfeld. During this time he collaborated with William P. Allis in the study of electron scattering by atoms.

On returning to the US in 1931, he joined the MIT physics department at the invitation of Karl T. Compton, who had begun the redirection and rebuilding of that institution. Morse took an active part in the development of the physics curriculum and became graduate registration officer, a position he

in brief

Lawrence Berkeley Laboratory announced the following appointments last year: James Symons was appointed to a five-year term as an associate director of the lab and head of its nuclear-science division. Symons had been director of the Heavy Ion Spectrometer System at Berkeley's Be-