grounds remained grateful to fate for bringing them together with Lifshitz.

M. I. KAGANOV
Institute of Physical Problems, Moscow
JOSEPH L. BIRMAN
City College of New York

Herbert Mahr

Herbert Mahr, for twenty years professor of physics at Cornell University, died at his home on 10 March 1982, after a prolonged illness. He was 52.

Mahr was born in Fürth, Germany, and took his PhD at Erlangen. He accepted a teaching position in 1957 at the University in Tucuman, Argentina, then two years later became a research associate in the Cornell Laboratory of Atomic and Solid State Physics and in 1962 assistant professor of physics there.

Mahr's research centered on the use of optics in the experimental investigation of crystalline solids. His work began with optical studies of insulators using classical sources of ultraviolet radiation, and burst ahead into new problems and new techniques with the advent of the laser in the mid-1960s. His first laser study was of two-photon absorption in a pure crystal. Soon after, he and Chung Tang demonstrated a new phenomenon, spontaneous parametric light scattering, in which one photon turned into two while still conserving energy and momentum. Mahr, also fascinated with very short laser pulses, with them explored ultrafast processes in materials. He also explored strange behavior that occurs in solids under laser excitation at very high intensity. Recently, he worked on an elegant but difficult scheme that he hoped might lead to a laser for Lyman-α radiation.

Believing that teachers do too much lecturing for what is an experimental science, Mahr developed a new course, the modern optics lab, in which students learned optics hands-on, without lectures, using experiments he devised and notes he wrote.

For his enthusiasm, industry and imagination, Mahr's influence will be missed by his colleagues and scientists elsewhere.

NEIL ASHCROFT
PAUL HARTMAN
Cornell University

Marion Llewellyn Pool

Marion Llewellyn Pool, professor emeritus at The Ohio State University, died at the age of 82 in Illinois in October 1982. He was educated at the University of Chicago: He received his BS there in 1924 and his PhD in 1927. In 1928 he came to The Ohio State University as an assistant professor. He became associate professor in 1932 and professor in 1941. A prolific research worker, Pool published hundreds of papers in the fields of artificial radioactivity, nuclear reactions and nuclear spectroscopy, plasma physics, and reactor physics. He also constructed at OSU one of the first cyclotrons in this country. After his retirement in 1971 he continued active research work at the departments of chemistry and physics at Western Illinois University on problems of magnetic confinement of fusion plasmas, a subject he was working on at the time of his death.

E. LEONARD JOSSEM
The Ohio State University

Morton M. Traum

Morton M. Traum, member of the technical staff of Bell Laboratories, died at age 41 on 1 December in Stoughton, Wisconsin.

Traum was educated at Rutgers University (BS, 1965) and Stevens Institute of Technology (MS, 1971; PhD, 1976). He joined Bell Laboratories in 1968 and became a specialist and an innovator in surface physics and synchrotron-radiation science, particularly in photoelectron spectroscopy and photon-stimulated desorption. He collaborated in the first demonstration that angle-resolved photoelectron spectroscopy could be used to map directly the energy band structure in solids and at surfaces. He contributed to the use of synchrotron radiation in angle-resolved photoelectron spectroscopy and demonstrated the strength and utility of polarization selection rules. His most recent activities centered on stimulated desorption phenomena.

Traum was chairman of the Surface Science Division of the American Vacuum Society. He was instrumental in establishing a prize for the best student paper on surface science presented at the Annual Meeting. Officers of the American Vacuum Society have announced that this prize will be named for him.

NEVILLE V. SMITH
Bell Laboratories

Serge E. Golian

Serge E. Golian died on 24 September 1982 at the age of 71. Born in Russian Turkestan, he received his early education in China. He attended the University of Cincinnati and the University of Chicago. During World War II he worked at the Radiation Laboratory at MIT, where he was engaged in the development of radar beacons, and, in