

replaces Thomas B. Cook Jr, who retired in October.

**Frank Di Salvo**, formerly head of the solid-state and physics-of-materials re-

search department at Bell Labs (Murray Hill, New Jersey), is now professor of chemistry at Cornell University. His research is in solid-state chemistry and the physics of novel materials.

## obituaries

### Wallace C. Koehler

Wallace C. Koehler died at his home in Oak Ridge, Tennessee, on 1 April 1986 after a brief bout with cancer; he was 65 years old. Koehler was a distinguished scientist and corporate fellow at the Oak Ridge National Laboratory, a long-time member of the solid-state division and director of the National Center for Small Angle Scattering Research.

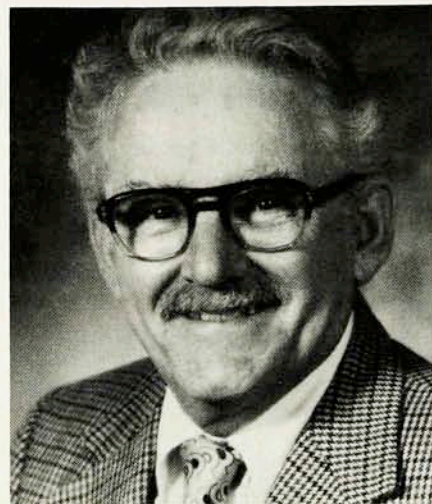
Born in Chicago, Koehler received his BS in physics from the University of Chicago in 1943, an MS from the same institution in 1948 and a PhD in physics from the University of Tennessee in 1953.

In 1949 Koehler came to Oak Ridge, where he, Clifford G. Shull and Ernest O. Wollan pioneered neutron scattering techniques for the study of condensed matter. He was innovative and energetic and, in spite of his youth, he was soon recognized as a leader in the field. Many neutron scattering programs in the world today were built on the foundations laid at Oak Ridge in those early days.

Koehler's research utilizing neutron scattering techniques spanned many areas of the solid-state sciences. He was concerned with such diverse topics as neutron-nucleus scattering amplitudes, crystallography of materials with light atoms, magnetic crystallography, magnetic interactions in condensed systems and superconductivity. He was also involved in developing new neutron scattering techniques; one of his most important contributions was the technique of polarization analysis, which he and his associates developed at Oak Ridge.

Early in his career, Koehler's interests turned to magnetism, and he made many significant contributions to the understanding of magnetic phenomena. Of special importance was his work on three-dimensional transition metal compounds, and particularly his detailed investigation with Wollan of the perovskite-type compounds  $\text{La}_{1-x}\text{Ca}_x\text{MnO}_3$ . This research was instrumental in explaining the magnetic superexchange mechanisms that exist in such materials.

Koehler's most profound and influential neutron scattering research dealt with rare earth metals, alloys and



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compounds. He was immensely interested in these materials, and he became one of the leading authorities on rare earth magnetism. Koehler and his Oak Ridge associates explained the very unusual magnetic properties of the heavy rare earth metals by unraveling the complicated long-range sinusoidally modulated magnetic structures that exist in these metals at low temperatures.

In 1978 Koehler embarked on a second career. With funding from the National Science Foundation he built the country's most powerful user-oriented small-angle neutron scattering facility at the Oak Ridge High Flux Reactor. The National Center for Small Angle Scattering Research, which includes this 30-m neutron scattering instrument and a 10-m x-ray scattering machine, soon became a hotbed for polymer research and for investigations in other areas of condensed matter science. Several hundred scientists have taken advantage of this superb national facility, and it was largely Koehler's untiring effort that made the center so successful. He cared deeply for the science, and he cared equally that his users succeed: Many were the times that he came out to the laboratory at night or on weekends to rescue a user who had run into trouble. "When will they ever learn to read the user's manual?" he would complain. But he was always there to help, and always encouraging

and supportive.

Koehler was a man of many parts. Not only an outstanding scientist, he was a talented actor and a lover of music and the arts. Professionally, he was stubborn when he thought he was right, and he never lost his determination to excel as a physicist.

RALPH M. MOON JR

MICHAEL K. WILKINSON

ALEXANDER ZUCKER

Oak Ridge National Laboratory

Oak Ridge, Tennessee

### Herbert A. Pohl

Herbert A. Pohl, visiting scientist at the National Magnet Laboratory and professor emeritus at Oklahoma State University, Stillwater, died on 21 June 1986.

Pohl was born in Lisbon, Portugal, of American parents in 1916. He had his undergraduate as well as graduate education at Duke University, earning a PhD in physical chemistry in 1939. After spending a year at John Hopkins Medical School as a National Defense Research Fellow, he served during World War II as a senior chemist at the US Naval Research Lab. His academic life included faculty positions at Princeton, Brooklyn Polytechnic and Oklahoma State University, where he served from 1964 until his retirement in 1981. Before his research work in academic laboratories Pohl carried out his scientific investigations for 12 years in industry as a senior research associate at E. I. Du Pont de Nemours and Company. Pohl was editor of the *Journal of Biological Physics*, coeditor of *Digest on Dielectrics* and on the editorial board of the *Journal of Electrostatics*. He wrote a monograph on dielectrophoresis, a textbook on quantum mechanics for science and engineering, which was translated into French, Italian and Japanese, and over 200 research papers, besides editing other books and conference proceedings.

Although best known for his research in dielectrophoresis and polymer physics, Pohl's almost half-century scientific career spanned several areas in chemical and biological physics. His research, both theoretical and experimental, bears the stamp of originality and versatility. His paper on the possibility of an organic magnet and his more recent involvement in possible electromagnetic radiation from growing cells typify the boldness of his approach. Furthermore, Pohl had a vision of science being used to benefit mankind; this humanitarian spirit, so evident in his dealings with colleagues and associates, also motivated the direction of his research efforts. In