Robert B. Corey
1897–1971

Robert B. Corey, 73, professor of structural chemistry emeritus, died on April 23 in Pasadena. He had been a member of the Institute staff for 34 years.

Robert Corey was born in Springfield, Massachusetts, in 1897. He received his BChem from the University of Pittsburgh in 1919 and his PhD from Cornell University in 1924 for work in inorganic chemistry. He was an instructor in chemistry at Cornell for five years. In 1928 he joined the staff of the Rockefeller Institute for Medical Research, and it was there that he became interested in the structure of molecules—the focus of his work for the next 30 years.

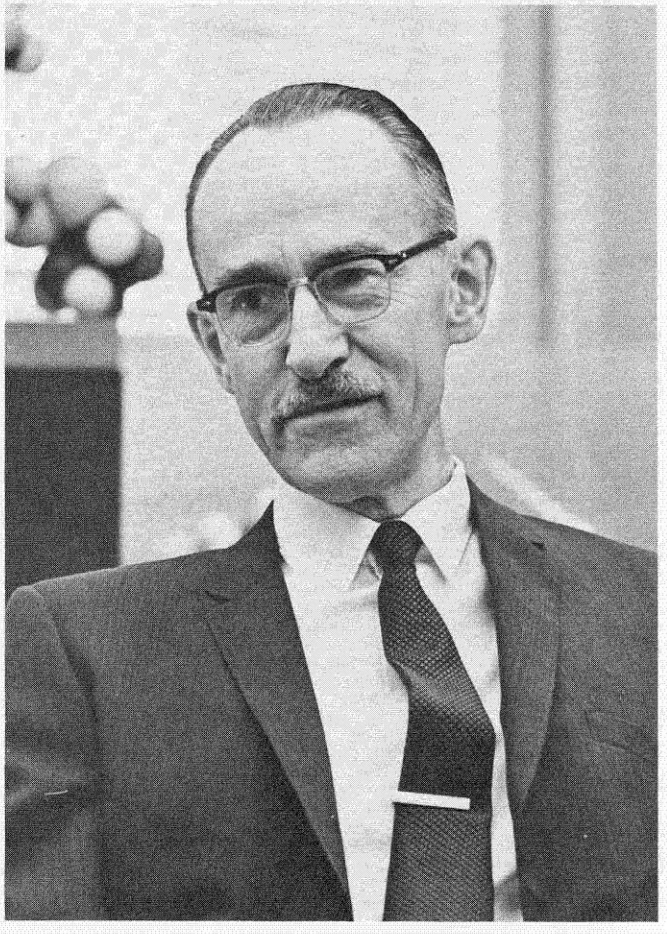
Because Caltech had the equipment necessary for his studies in X-ray crystallography, in 1937 Corey came to the Institute as a senior research fellow. Linus Pauling, then chairman of the division of chemistry and chemical engineering, had been working for some time on the structure of proteins, but he needed more information about the dimensions of the bonds and bond angles and the radius of the atom in the polypeptide chains—a project that Corey agreed to undertake. In rapid succession he determined the structure of several peptides, and within a dozen years he had laid the foundation for work on the detailed structure of proteins.

From 1942 to 1946 Corey was on leave to work with the Office of Scientific Research and Development on the analysis, composition, and stability of propellant powders for rockets, and in 1947 he was awarded a joint War and Navy Department Certificate of Appreciation for his services to the nation during World War II.

After the end of the war Corey worked for several years on the development and improvement of precise space-filling molecular models for use in the study of proteins. Today's molecular models are in all essential features identical with those that were first made under his direction, and they have become an indispensable part of present-day chemistry and molecular biology.

The early 1950's were exciting years in this field. The Corey-Pauling model for biological macromolecules was being formulated and information about it was being disseminated. While Corey was usually not enthusiastic about participating in the dissemination process, in 1955 he made a round-the-world speaking tour—and left a wake of people who suddenly understood and believed in the models he explained: the alpha-helix, the antiparallel chain pleated sheet, and other structures of proteins to whose development he had so greatly contributed.

After 1956 Corey turned his attention from the fibrous



repeating type of protein and focused on crystalline proteins and enzymes. His studies in this area had a profound effect on the development of protein crystallography at Caltech and throughout the world.

Corey was awarded a Guggenheim fellowship in 1951, and the University of Pittsburgh honored him with a DSc degree in 1964. He was a fellow of the American Chemical Society and of the American Association for the Advancement of Science, and a member of the National Academy of Sciences.

A memorial service was held in Dabney Lounge on the campus on May 5 with George Hammond, chairman of the division of chemistry and chemical engineering, presiding. Tributes to Corey were given by three of his long-time friends and colleagues: Linus Pauling, professor of chemistry emeritus; Richard Marsh, senior research fellow in chemistry; and Ernest Swift, professor of analytical chemistry emeritus.