66. In Memoriam Herman F. Mark

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Marcel Dekker
IN MEMORIAM

HERMAN F. MARK

May 3, 1895—April 6, 1992

Professor Herman F. Mark died on April 6, 1992, one month before his 97th birthday. For almost 70 years Herman Mark was in the forefront of polymer chemistry. He was an outstanding scientist, a superb teacher, a fascinating lecturer, an excellent organizer, and a remarkable human being. In the early days of his scientific career he determined the crystal structures of cellulose and a number of other natural and synthetic polymers. He also played a leading role in the development of the kinetic theory of rubber elasticity, and he was responsible for the simple determination of polymer molecular weights based on viscosity measurements, as represented by the Mark-Houwink equation. What Mark did not actively investigate himself, he helped disseminate throughout the rapidly developing field of polymer science.

Herman F. Mark was born in Vienna on May 3, 1895, and studied at the University of Vienna; he then went to Berlin to become a member of the staff of the Kaiser-Wilhelm Institute. A few years later he joined the I.G. Farben Industrie Laboratories in Ludwigshafen, Germany (today the BASF Company) and rose to the position of Assistant Research Director. In 1932 he accepted the position of Professor of Physical Chemistry at the University of Vienna and Director of the I. Chemical Institute. In 1938, after the take-over of Austria by Germany, Herman Mark was forced to leave his position and home in Vienna and went to Canada. In 1941 he was appointed Professor at the Polytechnic Institute of Brooklyn, where he founded the Polymer Research Institute, the first such institute in the world.

Mark had the gift of surrounding himself with outstanding young and highly competent coworkers. As had been the case in Vienna, students, scientists, and scholars came from all over the world to work with Herman Mark at the Polytechnic Institute; the activities were such that a kind of scientific frenzy developed that was to have few parallels. Much of what we know today of polymer science was conceived and initiated at that time in Brooklyn under Mark's guidance, encouragement, and leadership. The Polytechnic Institute became the center of polymer re-
search in the United States, and “Brooklyn Poly” became the place for polymer scientists to go to from all over the world.

We have mentioned Herman Mark as a scientist, teacher, and lecturer. He had the unusual gift of presenting even complicated concepts in a simple and most understandable manner. This, together with his broad knowledge of polymer science in both basic and applied science, made Professor Mark a superb lecturer, an industrial and governmental consultant, and an expert witness in critical court cases; an international figure in high demand.

Herman Mark was one of the most prolific authors in polymer science. He published about 600 papers, held 20 patents, and wrote or edited nearly 40 books.

Not only was he a prolific author, but he was a leader for others as an advisor to Interscience Publishers. He worked closely with Interscience’s cofounders, Drs. Dekker and Proskauer, to develop a prestigious monograph series on high polymers. According to Dr. Maurits Dekker, Dr. Mark wanted publications that contained practical solutions to problems. In that spirit, Dr. Mark also founded and edited the *Journal of Applied Polymer Science*. Today, these are two of the most prestigious series in the field and stand as a testimonial to Dr. Mark’s futuristic visions.

For his enormous accomplishments, Professor Mark was recognized in many ways all over the world. For his activity in World War I in the Austro-Hungarian Army, he received several high honors for bravery and was one of the most decorated young officers. For his scientific achievements, he received 21 honorary doctoral degrees, he was a member of 19 academies, including membership in the U.S. National Academy of Science and honorary membership in the Austrian Academy of Science; he was also an honorary member of over 30 scientific societies worldwide. Herman Mark was the recipient of more than 50 medals and awards, among the most prominent were the National Medal of Science, the Silver and Gold Awards of the Republic of Austria with Star, the Wolf Prize, the Legion d’Honneur, the Perkins Medal, the Nicols Medal, the Wilhelm Exner Medal, and the Heyrovsky Medal.

Herman F. Mark is fondly remembered and held in great esteem by his many students, coworkers and colleagues to whom he offered guidance, words of encouragement and invaluable advice. For his friends and coworkers he always had time and helped many of them under difficult circumstances. A great number of them succeeded to high and responsible positions in academia, industry and government worldwide. Herman F. Mark, or as he is warmly remembered, “The Geheimrat”, will be missed by us all.

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