

# Obituary

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**Herman F. Mark** (3 May 1895–6 April 1992)



Professor Herman F. Mark died on 6 April 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 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 3 May 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 F. Mark was forced to leave his position and his home in Vienna and go 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 was the case in Vienna, at the Polytechnic Institute, students, scientists and scholars came from all over the world to work with Herman Mark; 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 centre of polymer research in the US, and 'Brooklyn Poly' became the place to go for polymer scientists from all over the world.

We have mentioned Herman F. 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's leadership in the early phases of polymer science gave him the authority and credibility to initiate, with Dekker and Proskauer, 'Interscience Publishers', the leading polymer oriented publishing

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house. Interscience began publishing a book series on polymer science, 'High Polymers', but more importantly publication of the first periodical the *Journal of Polymer Science* was started during this period. Shortly thereafter came the publication of the 'Encyclopedia of Polymer Science'. 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.

For his enormous accomplishments Professor Mark was recognized in many ways all over the world. For his activity in the First World War, in the Austro-Hungarian Army, he received several high honours 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 18 academies, including the US National Academy of Science, and was an honorary member of the Austrian Academy of Science; he was also an honorary member of over 30 scientific societies worldwide. Herman F. Mark was the recipient

of more than 50 medals and awards, the most prominent among them being 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 most fondly remembered by his many students, coworkers, colleagues and friends, who hold him in great esteem; some of them he helped under most difficult circumstances. He always had time for all his friends and coworkers, with words of encouragement to give them confidence; many, with his support and backing, succeeded to high and responsible positions in academia, industry and government all over the world. He will be greatly missed by us all.

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