



THE M.S. TSWETT CHROMATOGRAPHY MEDAL

The Ninth International Symposium on the Advances in Chromatography awards the M. S. Tswett Chromatography Medal to

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| E. CREMER | for her pioneering work in gas adsorption chromatography; |
| D. H. DESTY | for his contribution to the development of chromatography as an analytical method, particularly in the petroleum industry; |
| A. I. M. KEULEMANS | for his achievements in the dissemination of chromatography, education, and in promoting cooperation among chromatographers from various countries; |
| A. V. KISELEV | for his life work in adsorption and chromatography; |
| A. J. P. MARTIN | for the invention of partition chromatography and gas-liquid chromatography. |

May their contribution help in the further advancement of chromatography, for the benefit of us all.

Houston, Texas, November 4, 1974

A. ZLATKIS
Chairman of the Symposium



Erika Cremer was born in 1900, in Munich, Germany. She studied at the University of Berlin and received her Ph.D. in 1927. In the following years she was associated with the Kaiser Wilhelm Institute in Berlin, the Universities of Munich and Kiel and the Physikalisch-Technische Reichsanstalt in Berlin. In 1940 she became an associate professor at the University of Innsbruck, Austria; in 1951 she assumed full professorship and was appointed head of the Institute of Physical Chemistry at Innsbruck University. She is now professor emeritus. In 1965, Dr. Cremer received an honorary doctorate at the Technical University of Berlin. She is a corresponding member of the Austrian Academy of Sciences and the recipient of various awards and medals.

Dr. Cremer's activities were related to a number of basic investigations in physical chemistry, catalysis and adsorption. Her work in gas adsorption chromatography began in 1944 and continued in the years after the end of the Second World War, under very difficult conditions. Her basic papers describing the system were published in 1944-1951. Later, Dr. Cremer also pioneered the investigation and development of selective detectors.



Dennis H. Desty has spent his whole career since 1948 at the Research Centre of the British Petroleum Company, at Sunbury-on-Thames, near London, England. His first years at the laboratory involved work on physical methods of separation of hydrocarbon mixtures, and during that time he had a special responsibility for the preparation and storage of high-purity hydrocarbons. His involvement in gas chromatography sprang from this latter activity. In 1952, when Martin and James completed their original work demonstrating the feasibility of the technique, Dr. Martin asked the British Petroleum Company for samples of high purity hydrocarbons for a study of the relationship between structure and retention volumes. The enthusiasm generated by a visit to Dr. Martin's laboratory to deliver the samples provoked an activity in Mr. Desty's group which lasted well over a decade and involved all aspects of gas chromatography, including high-speed, high-efficiency open tubular columns, detectors and many other matters. Parallel to this technical work, Mr. Desty played

a primary part in founding the Gas Chromatography Discussion Group in 1956, was the organizer of the first major symposium in 1956, in London, and of the second symposium in 1958, in Amsterdam. Mr. Desty later became chairman of the Group and, at the 1970 Dublin Symposium, was awarded a memorial parchment in recognition of his services to the Group and to gas chromatography.

Since the early sixties, Mr. Desty has devoted most of his effort to combustion chemistry. He is currently a Research Associate with a broad responsibility for exploratory work in new areas.



Aloysius I. M. Keulemans was born in Rotterdam in 1908. He studied at the Universities of Leiden and Delft. In 1938 he joined the Shell Research Laboratories in Amsterdam and has been involved in a wide variety of problems including antiknock properties of hydrocarbons, detergents, and the oxo process. In 1952, he met Dr. Martin who discussed with him the new field of gas chromatography; two weeks later Dr. Keulemans constructed the first gas chromatograph outside the United Kingdom. In the following years, he was involved in a wide variety of investigations on various aspects of gas chromatography and authored and co-authored a number of basic papers published at this time. He wrote the monograph *Gas Chromatography* which was published in 1957 and subsequently translated into six languages, including Russian and Japanese. In 1958 he accepted an invitation to join the Technical University of Eindhoven as head of the instrumental analysis laboratory. In this capacity Professor Keulemans built up one of the largest university laboratories dealing with instrumental analysis and particularly chromatography. In recent years he has also been very active in organizing the exchange of information and scientific personnel between universities and laboratories in Eastern and Western Europe.

Dr. Keulemans was honored by Her Majesty, Queen Juliana, in 1970.



Andrei Vladimirovich Kiselev was born in 1908. In 1938, he obtained the degree of candidate and, in 1950, the degree of doctor of chemical sciences. At

present, he is the Director of the Laboratory of Adsorption and Gas Chromatography, Department of Chemistry, Moscow University and of the Laboratory of Surface Chemistry, in the Institute of Physical Chemistry of the Academy of Sciences of the U.S.S.R., in Moscow.

Dr. Kiselev has published over 500 papers on the surface chemistry of solids, the synthesis and structure of adsorbents, the theory of adsorption and adsorption chromatography, the thermodynamics of adsorption and other related topics. His book on *Gas Adsorption Chromatography*, written in co-operation with Dr. Y. I. Yashin, was published in 1967; it was also published in an English edition.



Archer John Porter Martin was born in 1910. He studied at Cambridge University and received his Ph.D. in 1936. Between 1932 and 1938, he was associated with the Nutritional Laboratory of Cambridge University and then, between 1938 and 1946, with the Wool Industries Research Association. It was in this laboratory in 1941, together with R. L. M. Synge, that he developed partition chromatography, and in 1945, together with R. Conden and A. H. Gordon, paper chromatography. In 1948, after a two-year stay at a pharmaceutical company he joined the Lister Institute of the Medical Research Council and in 1950 the National Institute for Medical Research at Mill Hill, London. Here, together with A. T. James, he developed gas-liquid partition chromatography in 1952. Since 1956 he has served as a consultant to various laboratories and institutions. Between 1964 and 1974, he was an extraordinary professor at the University of Eindhoven, The Netherlands, and in 1973-1974 professorial fellow at the University of Sussex, Brighton. Since September 1, 1974, he has been the Robert A. Welch Professor at the University of Houston, Houston, Texas.

In 1952, Dr. Martin—together with R. L. M. Synge—received the Nobel Prize in Chemistry for the invention of partition chromatography. He has honorary doctorates from the Universities of Leeds and Glasgow, is a fellow of the Royal Society, an honorary member of a number of societies and the recipient of several awards and medals of various scientific societies. He is a Commander of the British Empire and a recipient of the Japanese Order of the Rising Sun (2nd Class).