

CHEMICAL HERITAGE FOUNDATION

JOHN H. BEYNON

Transcript of an Interview
Conducted by

Michael A. Grayson

at

Swansea, Wales
United Kingdom

on

22 April 2008

(With Subsequent Corrections and Additions)

ACKNOWLEDGMENT

This oral history is one in a series initiated by the Chemical Heritage Foundation on behalf of the American Society for Mass Spectrometry. The series documents the personal perspectives of individuals related to the advancement of mass spectrometric instrumentation, and records the human dimensions of the growth of mass spectrometry in academic, industrial, and governmental laboratories during the twentieth century.

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JOHN H. BEYNON

1923 Born in Ystalyfera, Wales, United Kingdom on 29 December

Education

1943 B.S., Swansea University, Physics

Professional Experience

1943-1947 Fighting Vehicles Research Establishment
Tank Armament Research

1947-1969 Imperial Chemical Industries, Ltd.
Manager of Physics and Physical, Polymer and Analytical
Chemistry

1970-1974 Senior Research Associate

1965 University of Minnesota
Boomer Memorial Fellow

1969-1975 Purdue University
Professor, Chemistry; Director of Mass Spectrometry Center

1964-1969 Swansea University
Honorary Fellow

1974-1986 Royal Society Research Professor and Director of the Mass
Spectrometry Research Unit

1976-present Research Professor, Physics and Chemistry

1972-1975 University of Essex
Visiting Professor

1982-1985 Visiting Professor

1976-present Institut Jozef Stefan
Research Associate

Honors

1960 Founder Chairman British Mass Spectrometry Society
1967 Founder Member American Society for Mass Spectrometry

1973 Sigma Xi Research Award, Purdue University
1979 Marice F. Hasler Award
1980 Jozef Stefan Medal
1981 Medal of the Serbian Chemical Society
1984 Techmart Trophy of the British Technology Group
1984 Jan Marc Marci Medal, Czechoslovak Spectroscopic Society
1985 Gold Medal, International Mass Spectrometry Society
1985-1986 President, Association for Science Education, Wales
1986-1990 Chairman, Schools Curriculum Development Committee, Wales
1987 Frank H. Field and Joe L. Franklin Award for Outstanding Work in Mass Spectrometry, American Chemical Society
1988 Gold Medal, British Mass Spectrometry Society
1990 Gold Medal, Italian Mass Spectrometry Society
1993 Founder President, European Mass Spectrometry Society

ABSTRACT

John H. Beynon was born in Ystalyfera, Wales, the older of two sons whose parents ended their education at secondary school. Beynon grew up in a coal mining town and attended a local university, the University of Wales at Swansea (Swansea University), during the early years of the Second World War. Graduating with a degree in physics, Beynon decided that the pursuit of a PhD was a waste of time and money and he committed himself fully to wartime work, including the development of weapons system used to track targets while a weapon was in motion. He spent much of his career in industry, principally working at the Imperial Chemical Industries (ICI), a British chemical company. Upon his arrival at ICI, Beynon's supervisor, A.J. Hailwood, immediately gave Beynon the task of building a mass spectrometer, a device with which he had no conceptual underpinnings. Creating this technology, however, proved to be pivotal in Beynon's career. Even without a PhD Beynon made himself and his work central to the development of mass spectrometry as a field of study and as a tool of chemical analysis and knowledge.

Uncertain about remaining in industry his entire life, Beynon spent time at Purdue University, Swansea University, and the University of Essex. Being outside of industry allowed Beynon the opportunity to publish his research for the wider scientific community, ultimately contributing over 350 articles and other publications to the annals of science. He founded the Mass Spectrometry Unit at Swansea University, and was also a founding member of both the British Mass Spectrometry Society and the American Society of Mass Spectrometry. All through his long career Beynon trained a number of students (one of whom is Gareth Brenton; Brenton's reflections on his mentor are recorded in the appendix to this transcript) and did much to advance the field of mass spectroscopy.

The interview concludes with Beynon's reflections on the politics surrounding the formation of an international mass spectroscopy committee. Throughout the interview Beynon details many of the scientific discoveries that came of out mass spec research, as well as a number of the refinements and improvements to mass spec technology.

INTERVIEWER

Michael A. Grayson is a member of the Mass Spectrometry Research Resource at Washington University in St. Louis. He received his B.S. degree in physics from St. Louis University in 1963 and his M.S. in physics from the University of Missouri at Rolla in 1965. He is the author of over forty-five papers in the scientific literature. Before joining the Research Resource, he was a staff scientist at McDonnell Douglas Research Laboratory. While completing his undergraduate and graduate education, he worked at Monsanto Company in St. Louis, where he learned the art and science of mass spectrometry. Grayson is a member of the American Society for Mass Spectrometry [ASMS], and has served many different positions within that organization. He has served on the Board of Trustees of CHF and is currently a member of CHF's Heritage Council. He currently pursues his interest in the history of mass spectrometry by recording oral histories, assisting in the collection of papers, and researching the early history of the field.

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