

## James Riddick Partington (1886–1965)



James Riddick Partington was born in Bolton, Lancashire, England, on June 20, 1886. Educated at Southport Science and Art School, he was an assistant to the public analyst in Bolton before qualifying for Manchester University where he received a first-class Ordinary B. Sc. degree in 1908, a Teachers Certificate (first-class) in 1909, a first-class honors degree in chemistry in 1909, and a M.Sc. in 1911 in chemistry. He was made a University Scholar, which allowed him to do research in Arthur Lapworth's laboratory. He then received an 1851 Exhibition Scholarship which he used to work under Walther Nernst in Berlin where he studied the specific heats of gases. Partington returned to Manchester in 1913 as lecturer in chemistry.

At the outbreak of World War I in 1914 he joined the army but because of his scientific background he was assigned work with E. K. (later Sir Eric) Rideal, purifying water for troops on the Somme. He transferred to the Ministry of Munitions in London in 1916 and there was part of a group led by F. G. Donnan at University College that studied the production of nitric acid. In recognition of his war work he was

awarded the M.B.E. (military division).

After receiving the D.Sc. in 1918 from the University of Manchester, Partington was appointed professor of physical and inorganic chemistry at Queen Mary College at the University of London in 1919, where he remained for 32 years until his retirement in 1951. He continued his scientific research on the specific heats of gases which led to a book with William Shilling, *The Specific Heats of Gases* (1924). Although technical in nature, the book shows Partington's early interest in the importance of the history of chemistry, a topic for which he would later become widely known. As historian Aaron Ihde points out, "Blessed with a retentive mind and unusual self-discipline, [Partington's] written output was prodigious. He made careful notes when reading the literature and had the capacity to transfer the notes to manuscript with little rewriting."

Partington published extensively in *Nature*, *Annals of Science* and other journals. His books include technical treatises as well as works on the history of chemistry: *Higher Mathematics for Chemical Students* (1911, 4th ed. 1931); *A Textbook of Thermodynamics* (1913); *The Alkali Industry* (1918); *A Text of Inorganic Chemistry* (1921, 6th ed. 1950); *Chemical Thermodynamics* (1924, 4th ed. 1950); *Calculations in Physical Chemistry* (with S. K. Tweedy, 1928); *The Composition of Water* (1928); *Origins and Development of Applied Chemistry* (1935); *A Short History of Chemistry* (1937, 3rd ed. 1965); and *A History of Greek Fire and Gunpowder* (1960) which was most recently republished in 1999. His first major work was a five-volume compendium on physical chemistry: *An Advanced Treatise on Physical Chemistry* (1945–1953). But it was his four-volume treatise, *A History of Chemistry* (1961–1970), that was, according to Ihde, "the capstone of his literary career" that "will remain a key reference for historians far into the future."

Partington was a Fellow of the Chemical Society of London and a council member (1922–1925 and 1929–1932). He was also a member of the Faraday Society and the Society of Chemical Industry. Partington was the first president of the Society for the Study of Alchemy and Early Chemistry (later the Society for History of Alchemy and Chemistry) when it was founded in 1937.

In 1975 the Society established the Partington Prize in his memory. It is awarded every three years for an original and unpublished essay on any aspect of the history of alchemy or chemistry. Partington was a member of the British Society for the History of Science and served as its president during 1949–1951.

In 1961 Partington received the Dexter Award for his numerous articles and books on the history of chemistry, particularly his multi-volume *A History of Chemistry*. In 1965 he was awarded the Sarton Medal of the History of Science Society. After his retirement he lived in Cambridge until early 1965, when he moved to Norwich, Cheshire to be near his sister. He died in a hospital at Weaverham, Cheshire, on October 9, 1965. His excellent library was bequeathed to Manchester University.

### Sources

Aaron J. Ihde, *A Quarter Century of Dexter Awards*, 1981, unpublished manuscript. Copy in the University of Pennsylvania Library, QD21 .Q8 1981a; an abridged version can be found in *Bulletin for the History of Chemistry* 2 (1988):12–13.

Anon., "Prof. J. R. Partington," *The Times* (London), October 11, 1965; 12.

F. H. C. Butler, "Obituary: James Riddick Partington," *British Journal for the History of Science* 3 (1966): 70–71.

F. W. Gibbs, "J. R. Partington, 1886–1965," *Chemistry and Industry* (1966): 151.

Harold Hartley, "Partington, James Riddick," *Dictionary of Scientific Biography* 10 (1974): 329–330.

W. A. Smeaton, "Partington, James Riddick," *Oxford Dictionary of National Biography*, Oxford University Press, 2004 (rev. W. H. Brock).

Dominic Whitehead, University of Manchester, private communication, 26 April 2006.

Photo courtesy of the Oesper Collections: University of Cincinnati.