



Peter Yates

August 26, 1924 - November 16, 1992

Peter Yates was well endowed with what one of his University of Toronto colleagues, Keith Yates, calls the old-fashioned virtues: fierce loyalty to his students and colleagues; stoicism in the face of adversity, such as his poor eyesight and other physical problems; fairness in all his dealings; and scholarliness, whether in chemistry (his life) or mathematics and bridge (his pastimes). To this list of admirable qualities, those of us who worked with him as an *Organic Syntheses* editor would add the Churchillian wittiness with which he enlivened several editorial dinners in the sixties.

Peter was born in Essex, England in 1924 and received a B.Sc. from the University of London in 1946. He gained a Ph.D. from Yale in 1951 and was on the faculty of Harvard in 1952-1960. He then became a Professor of Chemistry at the University of Toronto, where he remained for the rest of his career except for visiting professorships at Yale in 1966 and Princeton in 1977.

Professor Yates' research, reported in over 200 papers, covered a remarkably wide range. He established the structures of complex natural products, such as mangostin, shellolic acid, haplophytine, and the fecapentaenes. He was successful in synthesizing such complex natural products as gambogic acid, various bridged-ring steroids, and cedrene.

Professor Yates made important contributions to organic photochemistry, mechanistic organic chemistry, synthetic methods, and spectroscopy of organic compounds. His most important work in photochemistry was discovery of the photorearrangement of cyclic ketones to oxacarbenes. His studies of alpha-diazoketones led to syntheses of novel nitrogen and sulfur heterocycles. Among his many contributions to synthetic methodology was his discovery that some Diels-Alder reactions can be accelerated by Lewis acids.

Professor Yates was an early user and advocate of infrared spectroscopy to elucidate structures in organic chemistry. He published one of the first books on this subject, and

its was widely used by practicing organic chemists for many years.

Professor Yates' chemical achievements were recognized by, for example, the Centennial Medal of the Government of Canada in 1967 and Fellowship in the Royal Society of Canada in 1970. He was active in the International Union of Pure and Applied Chemistry for over a decade, serving as President of its organic Division in the late 70s. He was editor of the *Canadian Journal of Chemistry* for many years.

Peter was active in research to the very end. Although hospitalized in considerable discomfort, he held a research review with an associate in his hospital room three days before his death.

Blaine C. McKusick

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