

Paul de Mayo

1924—1994



Paul de Mayo, Professor Emeritus of Chemistry, one of Canada's most distinguished scientists, died in University Hospital on July 26 in his 70th year. He will be remembered for his many contributions to the Department of Chemistry and to organic chemistry and photochemistry, for his stimulating teaching, for his incisive mind and logical thought, and for his sense of humor.

He was born in the other London and received his education in England. After completing the B.Sc. degree at Exeter, he obtained the M.Sc. and Ph.D. degrees in organic chemistry from the University of London, the latter degree with D.H.R. Barton at Birkbeck College. After brief periods as an Assistant Lecturer and Lecturer at the University of Glasgow and Imperial College, he went abroad in 1958 to Harvard to work for a year with R.B. Woodward, then the premier organic chemist in the world. While there, he accepted an offer of a full professorship from Western.

At that time the university had fewer than 6000 students, and under the leadership of President G.E. Hall a program of expansion and strengthening of the science departments was underway. Professor de Mayo was one of three key appointments made under the guidance of Professor Fred Pattison, then the Head of Department, with the intention of increasing activity in research. PdeM (as he generally came to be known), being a devotee of hard work, set a vigorous example for new appointments in organic chemistry, and the lights in the chemical half of the Physical Sciences Building (now the Physics and Astronomy Building) burned brightly on weekday evenings. The research output of the department increased dramatically in the sixties and early seventies.

In 1969, together with the new Head of Department, Professor Howard Clark, he was largely responsible for the establishment of the Photochemistry Unit in the department. With the aid of a Negotiated Development Grant of about a million dollars from the National Research Council, several appointments were made, and the Unit remains the strongest photochemistry group in Canada. The expertise of the Unit led to a business enterprise in 1972, Photochemical Research Associates (PRA), of which PdeM was the first director. For a brief period PRA was located on campus and was supported by the university. When the university decided to withdraw from commercial ventures in 1976, PRA was turned over to the private sector.

PdeM's early research was in the structure determination of natural products from plant sources, but his major work was in organic photo-

chemistry, both mechanistic and synthetic, in which he laid the groundwork for entirely new areas of research. He was one of the first to realize the importance and potential of photochemical enone cycloaddition, and during the sixties and early seventies published a series of papers reporting his examination of the mechanism and synthetic application of this reaction. This work established his international reputation in photochemistry, and his contribution has been recognized by the attachment of his name to one form of the reaction. Following this, he explored the photochemistry of thiocarbonyl compounds and showed that it was quite different from that of the carbonyl group. More recently, he branched out into photochemistry in micelles in a series of papers on biphasic photochemistry, and then still later he took up photochemistry on surfaces and on semiconductors. He also carried out important work in flash thermolysis, a technique involving the action of high temperature over a short time to produce short-lived species. In addition to his research output of 249 publications, he was the editor of two valuable reference works, the two volumes of *Molecular Rearrangements* (1964) and the three volumes of *Rearrangements in Ground and Excited States* (1980).

For most of his years at Western, PdeM taught a fourth-year Honors course in organic chemistry, which though intellectually demanding was received with great interest. Students liked the give and take which characterized his lectures. Lecture notes and examination papers were embellished with amusing small stick figures of Ferdinand, PdeM's alter ego, offering helpful advice or humorous comment. In 1973 he and postdoctoral fellow (now Associate Professor) Mel Usselman developed a new undergraduate half course, *The Evolution of Chemical Thought*, which was one of the first to examine the historical development of major chemical concepts. His great innovation in graduate teaching was the

introduction of a required course of Problem Seminars for all graduate students in organic chemistry. Each Monday evening graduate students were given a real chemical problem to take away and solve alone within a week by application of logic and chemical knowledge. Then the most acceptable solution to the problem would be worked out in class on the following Monday evening by the students with the help of the faculty member presiding. In retrospect, most graduate students agreed that the exercise had been very beneficial. He also regularly gave his graduate course in organic photochemistry, which was attended by postdoctoral fellows and other faculty as well as graduate students. However, the largest share of his teaching was in the daily contact with graduate students (44) and postdoctoral fellows (78) in his three laboratories; it was in these discussions with him that students/postdocs learned how to think critically about what they were doing. The postdoctoral workers were a very international mix from Europe and Asia, and many of them now occupy academic positions in their own countries.

PdeM was noted for his high standards, applied primarily to his own work, but also to that of his students and colleagues. He did not hesitate to make his opinion known whether in meetings or conversation. For many years, appointment, promotion, and tenure decisions within the Chemistry Department bore the mark of his rigorous assessment.

It is not easy to give an impression of the full influence of PdeM because much of it was through personal contact. He was always approachable whether the matter was chemical or not, and his range of interests was wide. Random examples: He was famous for his pertinent and sharp questions after seminars and at chemical conferences. He was conversant in French and Spanish and used these languages when talking with postdoctoral workers

from those countries. He taught himself a working knowledge of Japanese with the help of his Japanese postdoctoral fellows. A committed Francophile, he made many working visits to France and held the D. ès Sc. from the Université Paris-Sud. He was one of those who strongly supported the establishment of the Faculty Club in the sixties as a place to entertain university visitors and persuaded his sister Flora, a trained bookbinder, to provide the elegant leather cover for the Club's wine list. He was a connoisseur of wine when this was difficult in Ontario. He was even consulted by President D.C. Williams about a suitable wine to accompany surf-and-turf! He was an accomplished cook who took delight in food. He was a skilled cabinet maker who crafted a variety of furniture for his family's home. He was a devotee of Sherlock Holmes, who was also adept at organic chemistry as PdeM often pointed out.

PdeM's early training in organic chemistry was provided by two future Nobel Laureates, D.H.R. Barton and R.B. Woodward, who also influenced five other present members of the chemistry department. It gave him great satisfaction when their formative influence on the department was recognized by the awarding of Honorary Degrees from this University, Woodward in 1968 and Barton in 1979.

His work was recognized by his election to Fellowship of both the Royal Society (London) and the Royal Society of Canada. He was selected to serve on the editorial boards of the *Canadian Journal of Chemistry*, the *Nouveau Journal de Chimie*, and

Tetrahedron. The esteem in which he was held was clearly shown by two festschrifts and a symposium. In 1984 the October issue of the *Canadian Journal of Chemistry* containing invited papers from colleagues, former students, and postdoctoral workers was dedicated to him on his 60th birthday. When he retired, a similar honor was bestowed on him by the *Journal of Photochemistry and Photobiology* with volume 57 (1991) of the photochemistry part. To mark his retirement, the annual Great Lakes Symposium on Photochemistry was held on campus in April 1990. Some 125 participants attended, including many of PdeM's former students and co-workers as well as members of the photochemical community from other countries.

His contributions to chemistry were also honored by a number of awards from the Chemical Institute of Canada: the Merck, Sharp and Dohme Lecture Award (1966), the Chemical Institute of Canada Medal Award (1982), the E.W.R. Steacie Award in Photochemistry (1985), and the E.W.R. Steacie Award in Chemistry (1992). In 1967 he received the Centennial Medal.

After retirement in 1990, PdeM turned his attention to the historical period when alchemy became chemistry. Although his health was poor, until he was hospitalized with a broken leg he appeared in his office regularly to work on this new interest. He is survived by his wife Mary and their two children, Gabrielle and Philip.

It has been a challenging task to find all your addresses. We still cannot locate some of PdeM's former co-workers; their names are listed below. The Chemistry Department would appreciate any information as to their whereabouts.

Amin, J.H.
Bhati, A.
Bernard, G.
Chen, Y.S.
Clement, A.
Eiken, Karl-Robert
Ellis, John
Flynn, J.
Frederick, B.

Glover, M. Ann
Harper, M.
Hayatsu, R.
Hikino, Yoshito
Hui, M.H.
Koulis, Maria
Lazare, Catherine
Lee, Kong H.
Ludwig, R.A.

Martin, Trevor I.
Miller, A.C.
Morkved, Eva Henmo
Neuberger, K.R.
Pond, D.M.
Sattar, A.B.M.
Shafiq, M.S.
Smith, S.J.
Smith, D.J.H.

Stenlake, J.B.
Taylor, Joan
Templeton, W.
Torres, M.
Wasson, John S.
Wong, Wun Kho
Wong, Y.F.
Yeung, D.
Zirk, Richard A.