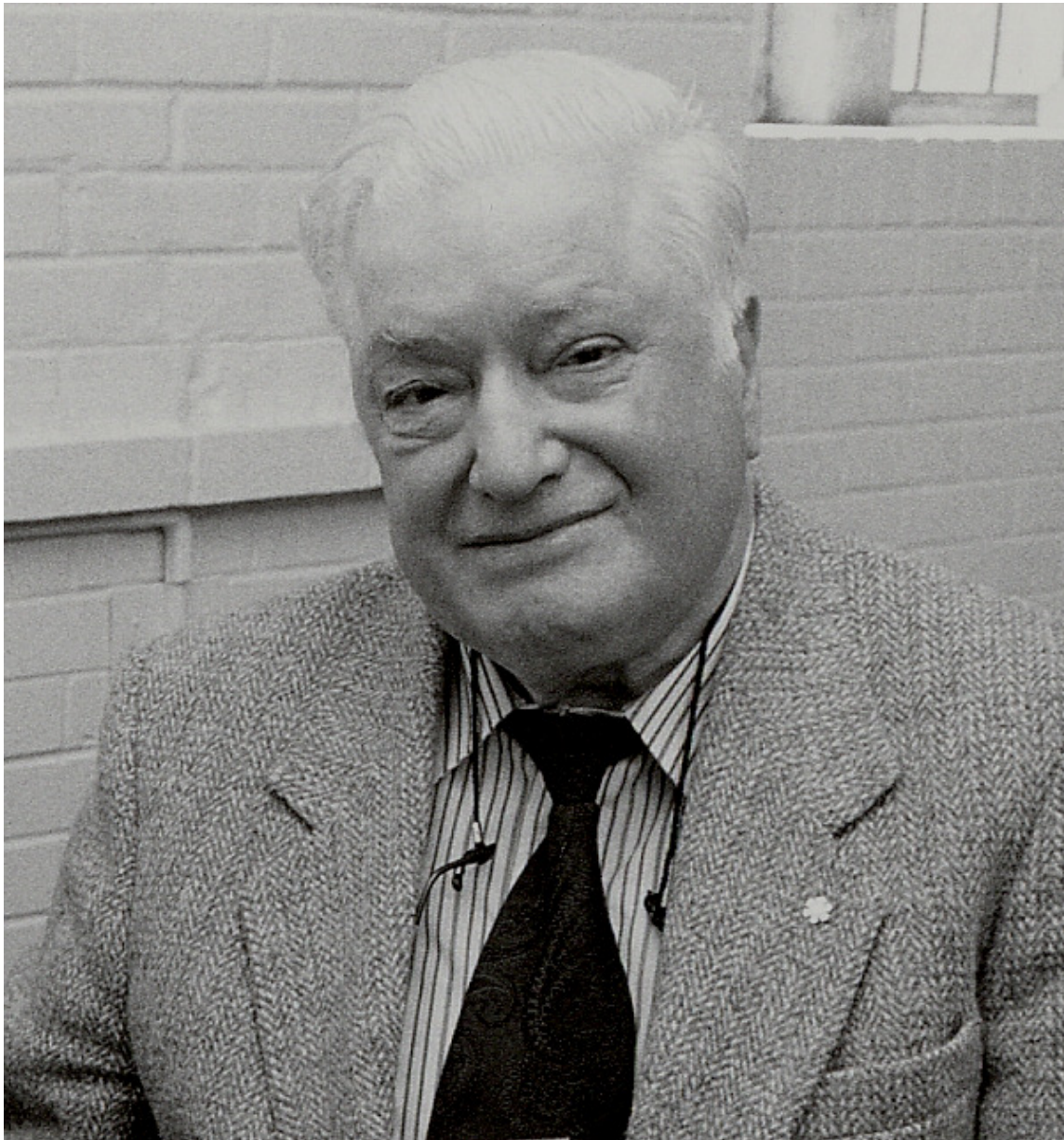


JAMES TROTTER, FRSC

Charles Alexander McDowell
1918-2001



With the death of Charles McDowell in September 2001, the University of British Columbia has lost one of the giants of its history; he was Head of the Chemistry Department there from 1955 until 1981.

Born in Northern Ireland in 1918, he began his career in Belfast, encouraged, it is said, to an interest in science by Errol Flynn's father, then his physics teacher. He obtained BSc, MSc, and subsequently D.Sc. degrees from Queen's University, Belfast. During World War II he served as a Gas and Bomb Identification Officer in the UK Civil Defence. His academic career began in 1946 at the University of Liverpool as a member of the Faculties of Medicine and Science. He came to Canada in 1955 as Head of the Department of Chemistry, University of British Columbia, Vancouver. When he arrived the department was small, with about a dozen faculty, and was housed in one building, the oldest on the campus; research was only a minor part of the enterprise. His greatest achievement was the creation of a vital, modern department, first class in both teaching and research. He realized in particular that the greatness of a university is set by its research achievements. Through his initiative, four new wings were built over the years; two were for undergraduate teaching, and two were for research. He hired people (lots of them) in all areas of modern chemistry – organic, inorganic, physical, and later analytical and bio areas; in terms of faculty numbers, UBC had at one time one of the largest chemistry departments in North America. Many of the faculty he appointed have become Fellows of the Royal Society of Canada.

He was particularly farsighted in recognizing the coming importance of instrumental techniques in chemistry, and assembled the appropriate infrastructure (electronic, technical, and mechanical support staff) in the department, from which it still benefits greatly. During his tenure as Head, his department became a magnet for chemists, not entirely in a figurative sense, as an impressive collection of mass, magnetic resonance, and photoelectric spectrometers was built up, often literally by the departmental mechanical and electronic staff, and housed in portions of the chemistry building that the architect had intended for quite different purposes. He persuaded the University of British Columbia and, by example, the academic community in general, that graduate teaching and research were part of the University's teaching function, whose fulfillment required funding for both personnel and equipment, and that proper undergraduate teaching in science required modern laboratory equipment and technical personnel to operate and maintain it.

His own research was in physical chemistry, including many branches of it: gas phase chemical kinetics, mass spectrometry, nuclear magnetic resonance, electron spin resonance, and photoelectron spectroscopy, and he published extensively in these and other areas. He was internationally recognized for his research achievements, and was also recognized as an academic administrator whose wisdom was widely respected throughout Canada and abroad. He held many memberships and received many honours. He was a Fellow of the Royal Society of Chemistry (UK) and the Royal Society of Canada (elected in 1962), and served as President of the Chemical Institute of Canada, as Chairman of the Canadian National Committee of the International Union of Pure and Applied Chemistry, and was an elected member of the European Academy of Arts and Sciences. Amongst his many awards are the Centennial Medal of Canada, the Chemical Institute of Canada Medal, the Queen's Jubilee Medal, the Montreal Medal of the Chemical Institute of Canada, a Killam Senior Fellowship, and a John Simon Guggenheim

Memorial Fellowship. He was highly regarded as a faculty member at UBC and served on many university committees. He was a long-time member of Senate from 1966 to 1981, and in 1981 he was designated as "University Professor" at UBC, in recognition of his contributions as a distinguished scholar. In 1981, he received an Honorary Degree (DSc) from UBC, and in 1993 he was named an Officer of the Order of Canada.

Charles McDowell's approach to problems was both direct and determined. Before going on sabbatical leave to Japan, a culture he much enjoyed, he spent a year learning to speak Japanese. He contracted a serious case of Guillain-Barre syndrome in 1979 at a IUPAC General Assembly in Switzerland. Through his unconquerable spirit and the support of his wife, Christine, his family, and colleagues, he returned to resume his research career.

His response to this debilitating illness was typical: having fought his way to recovery, he delved into the medical and scientific literature dealing with Guillain-Barre syndrome, and became something of an expert on the condition. He remained very active in his research, publishing a steady stream of high quality work until shortly before his death.

He will be remembered for his leadership, commitment, and dedication to his university and to his research discipline. The Charles A. McDowell Award, named in his honour, recognizes annually a UBC science faculty member who has demonstrated outstanding research capability before the age of 40. He was always present to award the medal to the recipient and to stress the importance of excellence in research as the basis for establishing and judging a university's greatness.

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(Author's title given as of the time of writing)