



Professor Emeritus Michael Henchman of the Department of Chemistry died peacefully in hospice on May 20, 2021 at the age of 86. He leaves behind his wife Katrina (Kate), two children, Anna and Sacha, a grandchild, Alexandra Henchman-Biel, two step-children, and four step-grandchildren. A celebration of Michael's life is planned for the spring of 2022.

Michael's early life was shaped by World War II. He was born in London, England in 1935. Michael was brought up in London and on the island of Guernsey and first educated in England, at Sherborne School, Dorset and at Clare College, Cambridge, where he received a B.A. and M.A. in 1956. As an undergraduate, Michael won a Mellon Fellowship to study at Yale, completing his Ph.D. in 1960 in the field of high-energy chemistry; he studied with Richard Wolfgang, then a rising star. He then returned to Cambridge to enlarge his scientific tool box, working in inorganic chemistry with Alfie Maddock, before beginning his independent scientific career in 1961 as Lecturer in Chemistry at Leeds University. While at Leeds he met our late colleague, Ernest Grunwald, at a scientific conference. Ernie was so taken with Michael that he recruited him for Brandeis, where he joined the faculty as Associate Professor in 1967 and retired as a full Professor in 2004.

Michael remained captivated with the energetics and mechanisms of chemical reactions throughout his career. His research led to observations on, and conclusions about how individual, isolated atoms, ions, and molecules react at low energies (they cling to one another) and at high energies (they bounce off one another). As his research blossomed he pursued techniques for simultaneously controlling both energetics and reactant orientation, for studying partially solvated molecules and for investigating simple gas phase biochemistry. His work has

been incorporated into the basic description of how species react, into the chemistry of interstellar space, and to help understand the rocket trails that enthrall us as we watch launches into space, to the moon and to Mars. There were also surprising ramifications. Among the more arcane was the discovery of conditions that permitted altering the apparent radar signatures of rockets, thus rendering them practically invisible.

An underappreciated scientific contribution was the effort he expended in writing review articles. His were compendious and critical. He felt it important to address weaknesses in arguments and limitations of techniques, and not just accept authors' claims. His encyclopedic command of the literature made him a welcome sabbatical visitor in research labs.

With a warm, witty, and articulate personality, Michael was a premier instructor. For teaching purposes he and his late colleague, Colin Steel, designed and assembled one of the most formidable and widely used instruments in chemistry's analytical tool box, namely the quadrupole mass spectrometer. This instrument, used to measure molecular mass, and featured on the cover of the prestigious *Journal of Chemical Education*, was made largely of glass. Consequently, a freshman chemistry student could see the instrument's interior and visualize the functions of each part. Beyond chemistry, Michael developed a course in Chemistry and Art for nonscientists in the humanities. Such was its impact and fame, that Michael was asked by the PBS Nova staff to participate in their documentary "The Viking Deception" on the (falsely designated) Medieval Vinland Map forgery. This involvement in bringing chemistry to the nonscientist attracted attention in the US and abroad and led to Michael giving many presentations: to universities, colleges, high schools, alumni groups, parents, to departments of science, art and education, and to national meetings of scientific and conservation societies.

Michael was a devoted Concord citizen, joining many organizations and supporting local charitable and conservation organizations. An avid member of the Concord Players, he produced and acted in many plays. His love of music and travel took him and Kate to numerous concerts and operas worldwide. He was always charming and could speak wittingly and intelligently on almost any subject. With his signature bow tie, sometimes in a color clashing violently with the rest of his outfit, he was always strikingly attired.

Michael was a luminous member of the Brandeis community. He was deeply committed to the mission and values of Brandeis and he will be missed by both colleagues and students.