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Introduction

Although Jim Morrison has been retired from La Trobe University for just on 10 years, his numerous fundamental contributions to mass spectrometry over a period of more than 50 years “down under” continue to play a significant part in the research activities of many present-day mass spectrometrists. Anyone who has ever used the technique of deconvolution to analytically improve instrumental resolution owes some thanks to the pioneering efforts of Jim in this field back in the early 1960s [J.D. Morrison, *J. Chem. Phys.* 39 (1963) 200]. Likewise, the industry standard ion optics program SIMION was originally conceived and developed on a PDP11/20 minicomputer by Jim and his Ph.D. student, Don McGilvery, some 25 years ago. At that time, Jim was also building a novel triple quadrupole mass spectrometer for the purpose of studying the photodissociation of gas-phase ions. This became the forerunner to the now widely used analytical tandem quadrupole mass spectrometer [C.G. Enke, R.A. Yost, J.D. Morrison, U.S. patent 4,234,791 (1980)].

These are but a few of the many areas of mass spectrometry that have benefited from Jim’s diverse research efforts. For a more detailed history of his scientific career the interested reader is referred to the published version of Jim’s acclaimed lecture, “Forty Years of Mass Spectrometry,” which was presented at the 36th American Society for Mass Spectrometry conference in San Francisco in 1988, and for which he received the great honour of a standing ovation [J.D. Morrison, *Org. Mass Spectrom.* 26 (1991) 183]. As Fred McLafferty noted in his accompanying testimonial, Jim is truly a “mass spectrometrists for all seasons” [F.W. McLafferty, *Org. Mass Spectrom.* 26 (1991) 181].

I personally became involved with Jim back in

1968 as his first research student at La Trobe University. The rather ambitious B.Sc. Hons project that he offered was to “build a quadrupole mass spectrometer.” Few commercial quadrupoles were available then and this provided me with a great opportunity to learn the trade of instrument building from an acknowledged master. This particular mass spectrometer formed the basis of my subsequent Ph.D. studies in which we explored the application of Jim’s new deconvolution technique.

Another project underway at that time at La Trobe was the construction of a fast scanning magnetic sector gas chromatography mass spectrometer (GCMS) with an innovative laminated magnet designed to minimize eddy currents [G. Haertel, J.D. Morrison, J.F. Smith, *Int. J. Mass Spectrom. Ion Phys.* 5 (1970) 215]. Together with a colleague, John Smith, Jim spent considerable time laboriously building up the 1.5 ton magnet from a series of interleaved segments. Imagine their disappointment when I casually pointed out one day that about halfway down the growing stack there was an incorrectly placed plate. This entailed extensive dismantling, whereupon they discovered that the misoriented segment had the words “Smith is a fink” written on it. Even to this day, and despite my vigorous claims of innocence, I believe that I am still (wrongfully) regarded as the miscreant. Fortunately this did not greatly delay the commissioning of the instrument and, with its on-line computer, was soon actively involved in a range of GCMS projects.

Jim has received many honours over the years for his contributions to science and education in Australia, culminating in the prestigious Order of Australia award in 1990. In that same year the Australian and New Zealand Society for Mass Spectrometry recog-

nized Jim's leading role in Australian mass spectrometry and instituted the Morrison lecture, which is the major invited oral presentation at each national conference.

Although Jim has now ceased active mass spectrometry at La Trobe University, he still keeps abreast of the current literature, and every second year teaches a Special Topics Course on Mass Spectrometry at the University of Utah for a quarter. In 1992 his topic was ion energetics; in 1994 he gave some thirty lectures on a complete review of mass spectrometry to date, and in 1996, together with an old friend, John Fenn, gave a course devoted especially to electrospray mass spectrometry, which he regards as the most exciting area of mass spectrometry today.

Much of Jim's scientific career has been involved with instrument construction and his great passion for solving mechanical and electronic problems continues

unabated. He has a very well equipped workshop at home and, in his spare time, is presently refurbishing two old commercial mass spectrometers, a Finnigan quadrupole and a JEOL double focusing magnetic sector machine, with a view to carrying out some fundamental electrospray experiments. I am sure Jim has not yet run out of innovative ideas and look forward to seeing the results of his latest efforts.

On behalf of the contributors to this special issue of the *International Journal of Mass Spectrometry*, I would like to congratulate Jim on reaching the fine age of 75. His many contributions to mass spectrometry have touched and inspired all of us at some time during our scientific careers and we are greatly indebted.

John C. Traeger
La Trobe University
Victoria, Australia