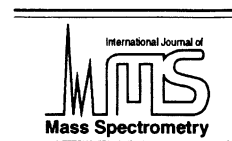




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Foreword

It is a great honour to be invited to contribute the foreword to this issue of the *International Journal of Mass Spectrometry* that celebrates the 60th birthday of R. Graham Cooks. I first met Graham about 35 years ago after he had left his native South Africa and was a student in Cambridge with Dudley Williams. Even then, it was clear that he was a young scientist of rare intellect and his distinguished career and the many awards and honours he has received in the intervening years amply demonstrate how well he has lived up to, if not exceeded, his early promise.

After leaving Cambridge in 1968, he spent a short period at Kansas State University before moving to Purdue in 1971 where he has worked for the past 30 years, becoming an American citizen in 1977. Initially, he was the Co-Director and then Director of the Mass Spectrometry Centre and more recently he was appointed as Professor of Chemistry and, since 1990, as the Henry Bohn Hass Distinguished Professor of Chemistry. During his career, he has to date advised nearly 80 graduate students, many of whom have gone on to have distinguished careers in mass spectrometry. In addition, approximately 100 postdoctoral assistants and visiting scientists have worked and published with him, as a quick glance at his list of several hundred publications bears witness. Of his many contributions to mass spectrometry, the steady stream of able, well-trained, and enthusiastic young mass spectroscopists from his laboratory must surely rank as one of the most impressive.

Graham has made major contributions in so many branches of mass spectrometry that it is possible to mention only a few. He was one of the earliest to recognise the usefulness of tandem mass spectrometry for the analysis of mixtures such as natural products, coal, and oil, and even strawberry jam and hair

shampoo I was told on one occasion. His major contributions early in his career were concerned primarily with the importance of energy in various aspects of ion chemistry. Measurements on metastable ions enabled him to determine the partitioning of energy between vibrational and translational energy during ionic fragmentation and he introduced the kinetic method for the determination of proton affinities from the dissociation of proton-bound dimers, a method that is still widely used. In an effort more closely to control the energy deposited in an ion on collision with a gas-phase species and to define more precisely the role of internal energy in ionic fragmentations, he pioneered the use of surface-induced decomposition of ions on a variety of types of surface. A second area of lasting interest has been instrumentation and instrumental techniques. He was one of the first to build a magnetic-sector/quadrupole hybrid mass spectrometer and to demonstrate its capabilities. More recently, his work has significantly increased our understanding of the motion of ions in an ion trap and this has resulted in a greatly improved performance. This has helped to transform one's perception of an ion trap from that of a detector for a gas chromatograph to that of a serious, versatile mass spectrometer of high resolution and sensitivity and capable of multiple tandem mass spectrometry experiments.

In a wider context, Graham has been a member of the editorial board of almost every mass spectrometry journal and has played a prominent role in the affairs of a number of mass spectrometry societies. He has held several senior posts in the American Society for Mass Spectrometry including that of President from 1986 to 1988 and was very active in promoting the formation of the International Mass Spectrometry Society of which he was President from 1997 to 2000.

He has also been elected as an honorary life member of both the Chinese and British Mass Spectrometry Societies and was awarded one of the first Thomson medals by the International Mass Spectrometry Committee in 1985. From the American Chemical Society, he has received the Award in Chemical Instrumentation (1984), the Field and Franklin Award (1991), and the Fisher Award (1997), and in 1999 the degree of D.Sc. (*honoris causa*) was conferred upon him by the University of Natal.

For most of us, however, our mind's eye picture of Graham is of him delivering one of his authoritative lectures, punctuated by one or more pictures by van Gogh. He has given over 50 plenary and keynote lectures throughout the world and has given almost as many named lectures in North America and Europe. His lectures are always beautifully prepared, are a

model of clarity and are delivered with a dry sense of humour that leaves his audience wanting more. The only problem for conference organisers is the worry that the lecture theatre may not be large enough to hold the audience. Those of us who have had the good fortune to spend time with him at conferences, NATO Schools, etc. enjoy his company and know what an entertaining colleague he can be. On his 60th birthday, we salute Graham not only for his many scientific achievements but for his many personal qualities. We hope that he will continue to enjoy his science and that we shall be able to continue to enjoy his company for many years to come.

Keith R. Jennings
University of Warwick
Coventry CV4 7AL, UK