

R. Graham Cooks Bio

Graham Cooks received Ph. D. degrees from the University of Natal (now QuaZulu-Natal) and Cambridge University. His interests involve construction of mass spectrometers and their use in fundamental studies and applications.

Early in his career, he worked on energy partitioning during metastable ion fragmentation and contributed to the concept and implementation of tandem mass spectrometry and to desorption ionization, especially matrix-based methods. His interest in minimizing sample work-up and avoiding chromatography contributed to the development of the ambient ionization methods, including desorption electrospray ionization (DESI). Applications of this method in tissue imaging, forensics and pharmaceuticals are in progress.

These same interests also led to the construction of miniature ion trap mass spectrometers and their application to problems of trace chemical detection. His interests in the fundamentals of ion chemistry include chiral analysis and spontaneous chiral resolution in clusters and the possible role of the amino acid serine in the biochemical origins of life.

Graham Cooks is a past President of the American Society for Mass Spectrometry and the International Mass Spectrometry Society and a Life Member of the British Mass Spectrometry Society. He has had the pleasure of working with several hundred collaborators from around the world including a hundred Ph. D. students.