



Introduction to Mass Spectrometry

A Two Day M-Scan Training Course MS01

M-Scan are offering training courses which cater for the rapid growth and interest in mass spectrometry for investigation of a wide range of problems in chemistry, biochemistry, pharmacology, forensic science and environmental analysis. The introductory course is an introduction to the basic technology, with consideration of the different types of instrument used, interpretation of spectra together with Problem Tutorials and Practical Demonstrations.

Course content

The Introductory Course will cover the most important Ionisation techniques used in Mass Spectrometry, including: **Electron Impact, Matrix Assisted Laser Desorption and Electrospray** together with descriptions of the most common mass analysers, and how to choose the correct combination for the problem under study.

Emphasis will be placed on the Interpretation of Mass Spectra, and there will be Problem Classes with examples from the research literature and the Lecturers' experiences, together with Practical Demonstration of some of the sample handling and Mass Spectrometric techniques covered. The mass spectrometers used in the practical session will include a state-of-the-art **Q-TOF (quadrupole orthogonal acceleration time of flight) instrument**.

Course Notes and Language

Course notes will be provided which are a brief summary of the material presented plus other background information such as key references to enable the students to expand on matters of interest after the Course. These materials and all presentations will be in English.

Who should attend?

This course (MS01) is designed for scientists who have little or no experience of mass spectrometry but wish to take advantage of the technology for their investigations, either using in-house facilities or the services of a contract laboratory such as M-Scan. It will enable them to begin studies involving mass spectrometry and will provide a sound basis for subsequent further in-depth training in the more specialised courses offered by M-Scan on Proteomics/Post-Translational Analysis, Biopolymer Sequencing, Structure Elucidation, Environmental Studies or Forensic Analysis.

Format/Programme

The programme will consist of lectures, discussion sessions, problem classes and practical demonstrations. The course will be limited to approximately 10 participants to ensure a good level of interaction. The programme for day 1 will be from 10.00 am to 6.00 pm with a course dinner in

the evening. Day 2 will start at 9.00 am and finish at 4.00 pm to allow for convenient travel arrangements.

Course Directors

Staff at M-Scan are Mass Spectrometry Consultants and Analysts and have considerable experience of course design and delivery in Industry and Higher Education. Areas of special expertise in mass spectrometry include: protein, carbohydrate and oligonucleotide sequencing; proteomics and post-translational analysis; determination of hydrocarbons and detergents in the environment; forensic science; and instrument design.

Two senior instructors, **Prof. Howard R. Morris and Dr. Andrew J. Reason**, will present the course with support from others in the company. Howard Morris has had an active research career of over 40 years in mass spectrometry, including aspects of instrumentation development and application to some of the most demanding structure-elucidation problems in chemistry and biology. He has published over 400 peer-reviewed papers in the research literature, in addition to book chapters and reviews. Andrew Reason has over 20 years experience in the field of mass spectrometry, initially in academic research and more recently heading-up the analysis and consulting activities of M-Scan Ltd.

Registration and Payment

Fee: 1500 Euros excl. VAT, including teaching materials, lunches, Course Dinner, refreshments and transportation to and from local hotels. A 20% reduction is available for students and full-time staff on the payroll of academic institutions: fee of 1200 Euros excl. VAT (requires written confirmation of current status from Head of Department). Acceptance on the course is at the sole discretion of the Course Organiser and full payment must be received before a place can be guaranteed. Those wishing to register are asked to do so 5 weeks before the course starts.

Acknowledgement of Registration

Confirmation of registration and a VAT receipt will be sent to all participants. Attendance instructions will be sent prior to the course. If you have not received your acknowledgement seven days before the start of the course, please contact the Course Organiser as below.

Cancellation and Substitution

Refunds will be made with a charge of 10% for cancellations made in writing at least 21 days prior to the start of the course. No refunds will be made after that date. In case of cancellation by M-Scan, a full refund will be available. If you are unable to attend, someone from the same organisation may take your place on the course, subject to notification and the approval of the Course Organiser at least 3 days in advance.