

**Isotopx workshop Sun 3rd April 2022
1-3 PM**

Introduction to Mass spectrometry

- Types of mass spectrometer
 - Isotopx mass spectrometers
 - NGX Static vacuum mass spectrometer
 - Phoenix Thermal Ionisation Mass Spectrometer (TIMS)
- Physics of mass spectrometry
 - Ion optics
 - Ion beam trajectories
 - Mass spectrometer equation
- Components of a mass spectrometer
 - Source
 - Electron bombardment ionisation
 - Thermal Ionisation
 - Analyser
 - Magnetic field
 - Detector
 - Faraday Cups
 - Electron multipliers
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- Vacuum envelope
 - Turbomolecular pumps
 - Ion pumps
 - Bakeout
- Resolution
 - Interfering species
- Sensitivity
- Virtual instrument demonstration (optional)
 - Tuning a beam
 - Scanning for peaks
 - Moving collectors to obtain coincidence
 - Observing a beam on the ion counters
 - Setting a method to run?
- Isotopx core technologies (optional)
 - ATONA/ZEPTONA
 - Ion Counting Daly
 - Multiple Ion counting

Isotopx Limited
Dalton House
Dalton Way
Middlewich
Cheshire CW10 0HU
United Kingdom

Tel: + 44 (0) 1606 839810
Fax: + 44 (0) 1606 839811

info@isotopx.com
www.isotopx.com

