

# Interpretation of Mass Spectra



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H4063A

Agilent Training Courses

## Course Information

### Three Days

Lecture Only Course

\$2 100 CDN

### Techniques

GC/MS

### Learning Objectives

After this course, you will be able to:

- Understand the nomenclature of Electron Ionization and associated fragmentation processes.
- Understand GCMS tuning and acquisition parameters and how they affect your data quality.
- Interpret spectra with A, A+1 and A+2 elements.
- Utilize spectral libraries and search tools to identify unknown compounds.

### Dates & Locations:

[Click Here to View Course Dates and to Register](#)

March 1-3, 2016

Montreal, QC

For assistance in registering, contact:

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## Course Overview

This course is designed to present the fundamental concepts necessary to obtain high-quality data in SCAN mode from a GC/MS system for spectral interpretation purposes. The most commonly employed tools used in identifying compounds based on their mass spectra are introduced, the physical reasons for their efficacy explained, and their use reinforced through problem solving. The most common decomposition mechanisms responsible for fragment ions will also be introduced.

## Course Outline

- Introduction
- Chemistry Review
- Data Acquisition
- Interpretation Procedure
- "A" Elements
- Spectral Purity & Background
- "A+1" Elements
- "A+1" + Oxygen
- System Hardware
- Tuning
- Single "A+2" Isotopes
- Multiple "A+2" Isotopes
- Scan Data Acquisition
- Alpha & Inductive Cleavage
- Rings and Double Bond Calculations
- McLafferty Rearrangement
- Spectral Library Search
- Supplemental Problems

## Prerequisites

Undergraduate training in organic chemistry and at least six months experience obtaining spectra with a modern mass spectrometer and data system.

