



SU-640

Interpretation of Alpha Spectroscopy Results



DESCRIPTION

This course delves into the details of alpha spectroscopy analysis results generated with Apex-Alpha™ systems. The course will provide guidance for review of analysis results in consideration of all of the features of the related alpha particle spectrum. Spectral features can be useful for quantitative alpha spectroscopy analysis or they can be interferences; this course describes both types of spectral features and gives the attendee knowledge to properly evaluate them. This course is not a detailed hardware or software operations course, but does include demonstrations of how spectra and analysis results are affected by sample preparation, hardware settings, and software settings. This class allocates about 50 percent of the class time for hands-on activities to help master the concepts needed to interpret alpha spectroscopy results.

HOW YOU WILL BENEFIT

Attendees who complete this course will gain an advanced practical and academic understanding of all of the processes which contribute to complex alpha particle spectra. This understanding will allow the attendee to review and interpret alpha spectroscopy results and to tailor the alpha spectroscopy analytical process to improve the quality and reliability of the results.

WHO SHOULD ATTEND

Experienced technologists or supervisory personnel who wish to improve their understanding of complex alpha particle spectra and thereby improve the quality of the alpha spectroscopy analysis data they generate.

COURSE CONTENT

- Features in spectra, their origin and properties
- Consequences of sample separation and preparation
- Calibrations (Energy and Efficiency)
- Applying reference nuclear decay information
- Analysis and data reduction
- Production and history of sample
- Spectral interpretation - making sense out of the data
- Quality assurance for alpha spectroscopy

PREREQUISITES

Students planning to attend this “Advanced Topics” training course must have a good working knowledge of the basic features and setup options available in the standard Apex-Alpha software. Prior completion of Mirion’s Apex-Alpha TrainingTrax through course SU-568 is strongly recommended.