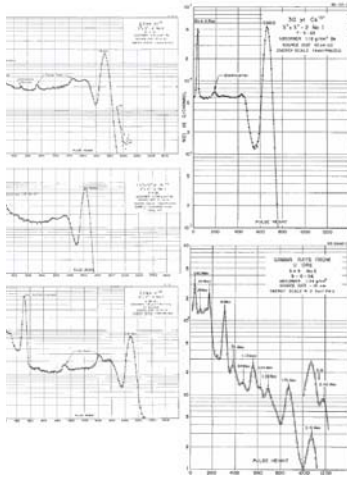


Gamma-Ray Spectroscopy

Recent Advances in Research, Development and Applications

September 20-24, 2021 ♦ "Live" Online Instruction ♦ Course Fee: \$1295



This 5-day course will provide an overview of modern gamma-ray instrumentation while describing the fundamentals of radiation interactions. The training encompasses the basics of radioactivity, decay schemes, uncertainty measurements, analog and digital electronics, scintillation and semiconductor detectors, quality assurance and quality control. The training will also include on-line laboratory demonstrations and exercises.

A COURSE DEVELOPED FOR VARIED BACKGROUNDS

- Gain a solid background in the interactions of radiation with matter.
- Learn the basics of radioactive decay and decay schemes.
- Understand the basics of measurement and detection for gamma ray instrumentation.
- Explain spectral features and their interpretation, including peak identification.
- Understand quality assurance and quality control.

Course Topics

- Historical Overview
- Nucleus, Isotopes and Decay Schemes
- Gamma-Ray Interactions
- Germanium Detectors
- Detector Efficiency, Calibration and Efficiency Curves
- Dead Time and Pile-Up Corrections
- Live Time Corrections and Loss Free Counting
- Shielding
- Gamma-Ray Attenuation
- Uncertainty of Measurement
- Radiation Protection
- Low Level Counting/ Coincidence and Anti-Coincidence Methods
- Room Temperature Detectors
- Digital Systems
- Quality Assurance and Quality Control
- In-Situ Gamma Ray Detection
- How to Choose a Gamma Ray Detector
- On-Line Laboratories and Exercises: Statistics, Energy Resolution, Gamma-Ray Attenuation, Shielding

About the Instructor

Sheldon Landsberger, Phd., is a Professor in the Nuclear and Radiation Engineering Program at The University of Texas at Austin in the Walker Department of Mechanical Engineering. He is nationally and internationally known for his work in low level gamma-ray counting and the application of radiochemistry analysis in environmental research. He has more than 250 peer-reviewed journal publications with many in radioactivity measurements. For the past 40 years he has been extensively involved in nuclear instrumentation, health physics and radioactive waste management both in teaching and research. He has been a consultant for the International Atomic Energy Agency (IAEA) since 1988 and has travelled to more than 40 countries as an expert instructor in nuclear science and engineering. He has also developed training workshops in Radiochemistry at Nuclear Power Plants and Radiation Safety Officer training in the Oil and Gas Sector.

HOW TO REGISTER ...

Visit our website at www.tmscourses.com and register online, or call 860-738-2440.

Registration questions can be emailed to info@tmscourses.com

Course Fee: \$1295 Discounts: \$50 for two or more from same company