Tel No:+97126654546 | Fax No:+97126654182 | Email: training@cmc-me.com | www.cmc-me.com



AL067:
Atomic Absorption Spectroscopy

Training Description:

This intensive course covers the absorption of radiation by a sample of atomic particles, created by vaporizing the sample, represents a relatively simple spectral situation that has great practical value for elemental identification and concentration determination. The technique known as atomic absorption spectroscopy is of particular analytical importance for the determination of metals due to its sensitivity and potential for selectivity by virtue of the narrow atomic absorption lines.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Understand the meaning of spectroscopy, and to be able to make elemental analysis with high sensitivity by spectroscopy

Training Designed for:

This course is intended for those personnel whose working in any analytical laboratory including Laboratory staff, Chemists, Supervisors and Technicians.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ Analytical Chemistry and Chemical Analysis
- ❖ Classical Methods
- ❖ Instrumental Methods
- ❖ Spectroscopic Methods of Analysis
- ❖ Historical and Review
- ❖ Basic Principals

DAY TWO:

- ❖ Electromagnetic Spectrum
- ❖ Theory of Spectroscopy
  - Absorption
  - Emission
  - Fluorescence
  - Phosphorescence
- ❖ Type of Spectroscopy Analysis
- ❖ Molecular Spectroscopy Analysis
- ❖ Atomic Spectroscopy Analysis
- ❖ Atomic Absorption Spectroscopy (AAS)

DAY THREE:

- The Effect of Temperature on Absorption
- Atomization: Flames, Furnaces
- The Linewidth
- Hollow-Cathode Lamps
- Detection Limits

DAY FOUR:

- Interference
- Method of Analysis
- Sampling, Preparation and Treatment
- Problem and Troubleshot
- Routine Maintenance

DAY FIVE:

- Data Analysis
- Comparing Spectroscopic Techniques
- Spectroscopic Advantages and Disadvantages
- Safety Requirement
- Practical Application
  - Petroleum Analysis
  - Water Analysis
  - Solid Waste Analysis
- Environmental Analysis
- Course Conclusion
- POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

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Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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