INTRODUCTION TO INDUCTIVELY COUPLED PLASMA-OPTICAL EMISSION SPECTROMETRY

About AES Laboratories

Established in 1983, AES Laboratories is an NABL accredited laboratory in the fields of chemical, biological and mechanical testing.. The laboratory is recognized by various government and private organizations and are providing analytical services to these sectors in the fields of food, environment, petroleum, construction materials and microbiology and various other chemical testing. The laboratory has extensive modern infrastructure with latest technology in laboratory instrumentation along with a well qualified team of laboratory professionals.



Our Training Programs

The laboratory regularly offers training programs designed to meet the needs of all levels of students or professionals related to the field of laboratory analysis. The laboratory is also acting as a study centre for IGNOU for the course on Post-Graduate Diploma in Food Safety and Quality Management (PGDFSQM). Our training courses offer limited class size to ensure maximum learning benefits for our students.

Course Objective

ICP/OES is one of the most powerful and popular analytical tool for the determination of trace elements in a myriad of sample types. ICP/OES has become an indispensable means for chemical elemental analysis. Optical emission spectrometers with inductively coupled plasma excitation sources offer ease of use, high sensitivity and precision and relative freedom from interferences. ICP-OES systems have now become the analytical method of choice for a wide range of applications.

This is a 5 day introductory course for those who want to learn basic principles of ICP/OES and acquire theoretical as well as practical knowledge on ICP-OES. The program will provide hands on training on operation of the ICP/OES and basic troubleshooting. By the end of this course, the candidates will have a good understanding of method development & major analytical parameters of ICP/OES. The learners get the additional benefits of understanding work place environment through interaction with our technical experts. The course also lays stress on basic laboratory procedures which often get overlooked in university curriculum.

Who should attend

All those who are interested in pursuing a laboratory career or a career in residues, environment, agriculture or food sciences. The program is beneficial to fresh graduates who are looking forward to a career in industrial quality control and research labs and also to working professional who get an opportunity to upgrade their skills and awareness of the advances in the technique. The basic qualification for attending this course is either a B.Sc. Degree, or completion of 12th class with a minimum of I year relevant lab experience.

Course Contents

- Introduction to ICP-OES principles
- ICP-OES components & function
- Plasma viewing considerations
- Method development, calibration overview and running of samples
- Interferences & Corrections
- Analytical considerations
- Routine maintenance & basic troubleshooting

For more information regarding this training program, please contact us at:

