Inductively Coupled Plasma Spectrometry

Video-based training programs

Principles of Plasma Emission Spectroscopy

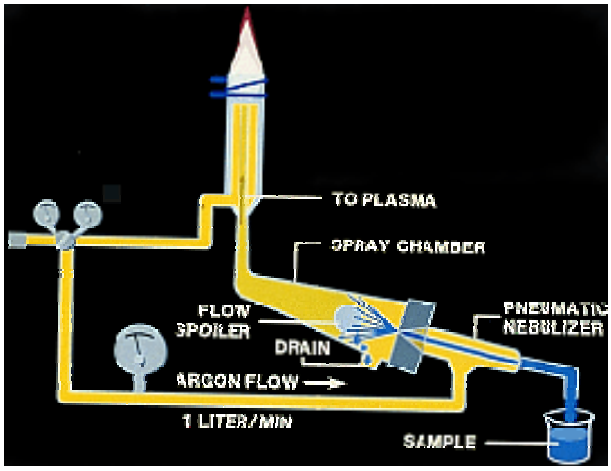
PLE-101

This program first reviews the history of spectrochemical methods and the origin of atomic spectra. Characteristics of atomic emission and absorption are reviewed and experimental methods of emission are described generally.

Next ICP characteristics are discussed, and an overview of an ICP emission spectrometer is presented. The functions of individual components (source, sampling system, spectrometer, electronics and computer) are then described.

Resolution requirements are considered in relation to source temperature. Both sequential and simultaneous measuring spectrometers are discussed.

36 minutes



Principles of Inductively Coupled Plasma Mass Spectrometry

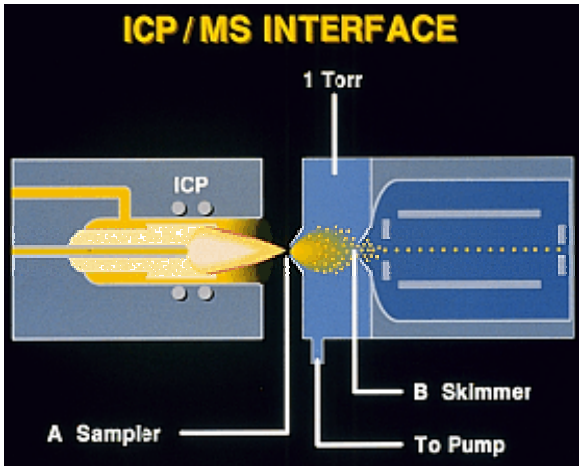
PMS-101

This program, a companion to the Plasma Emission program, PLE-101, serves to contrast the two atomic measurement techniques. After a brief review of atomic structure and optical emission techniques, methods of measuring mass spectra are considered. Principles of magnetic sector and quadrupole instruments are illustrated.

Next the ICP as a source of ions rather than photons is discussed, as well as a method of interfacing the plasma to the high vacuum region of a quadrupole MS.

Finally the program reviews some of the major applications of ICP/MS: isotope dilution measurements and determination of trace metals, isotope ratios, rare earths and precious metals.

24 minutes



Ph 800-4-SAVANT (800-472-8268) & 714-870-7880 ♦ Fax 714-526-7400
info@academysavant.com ♦ PO Box 3670, Fullerton CA 92834 ♦ www.academysavant.com