AIHA Accreditation

Radiological Beryllium by Inductively Coupled Plasma-Emission Spectrometry (ICP-ES)

Overview

F/H Analytical Laboratories uses ICP-AES for use in elemental solution analysis. A nebulizer is used to produce a fine aerosol from the sample solution. A high temperature argon plasma is then used to atomize and excite the sample atoms. As the sample atoms drop back to lower energy level, they emit characteristic spectra of light based on elemental content. Separation of light by wavelength is accomplished via optics. A detector measures the intensity of the light at a defined wavelength for each element analyzed which is compared to an external calibration for determination of sample element concentration.

Features

- Accredited by the American Industrial Hygiene Association (AIHA for the analysis of Beryllium using ICP-AES in support of the SRS Chronic Beryllium Disease Prevention Program
- The SRS F/H Lab analyzes plutonium contaminated beryllium samples using a unique column separation method developed at SRS
- Reporting limit .010 µg Beryllium per sample which is below the new ACGIH TLV (American Conference of Governmental Industrial Hygienists Threshold Limit Value) of .050 per cubic meter

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