TECHNOLOGY

Pulsed Continuum Source-Diode Array Detector Multielement Atomic Absorption (AAS) Spectrometer

OVERVIEW

Today, trace metals are being quantified at the ultra-trace level. Existing systems make accurate determinations at these levels laborious and predominantly single element processes, as typified by current commercially available atomic absorption spectroscopy (AAS) instruments. These instruments use a different hollow cathode lamp (HCL) for each element. Initial attempts at a multielement system were inadequate, bulky and gave poor detection limits.

Researchers at the University of Maryland, Department of Chemistry and Biochemistry, in collaboration with researchers from the USDA, have invented a pulsed-continuum source diode array detector multi-element atomic absorption spectrometer. This instrument will make possible the monitoring of elements of potential nutritional value at the ultra-trace level concentration. Accurate determination at these levels are laborious and predominantly a single-element process. This invention allows multi-element analysis and improves sample throughput with state-of-the-art detection limits.

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Additional Information

INSTITUTION

University of Maryland, College Park

PATENT STATUS

A U.S. patent, #5,018,856, has been issued on this technology.

LICENSE STATUS

Available for exclusive license

EXTERNAL RESOURCES

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