

What does an atomic spectrometer measure



Overview

Since unique elements have unique emission spectra, atomic spectroscopy is applied for determination of elemental compositions. It can be divided by atomization source or by the type of spectroscopy used. In the latter case, the main division is between optical and mass spectrometry. Spectrophotometry is a scientific technique that involves the determination of the concentration of elements present in a. Modern atomic absorption spectroscopy has its beginnings in 1955 as a result of the independent work of A. 1991, 63, 933A-941A; (b) Koirtyohann, S. So, what is atomic absorption spectroscopy?

How does atomic absorption spectroscopy work?

Flame atomic absorption spectroscopy (Flame AAS or FAAS) was developed. Atomic absorption spectroscopy (AAS) is an analytical technique that measures the concentration of specific metal elements in a sample by detecting how much light those metal atoms absorb. It works because every element absorbs light at characteristic wavelengths. By measuring how much of that.



Article Content

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Atomic Absorption Spectrometry (AAS) Information | Thermo Fisher ...

What is atomic absorption spectrometry? Atomic absorption spectrometry (AAS) detects elements in either liquid or solid samples through the application of characteristic wavelengths of electromagnetic ...

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Atomic Absorption Spectroscopy Overview

AAS is an analytical technique used to determine how much of certain elements are in a sample. It uses the principle that atoms (and ions) can absorb light at a specific, unique wavelength. When this ...

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10.4: Atomic Absorption Spectroscopy

Atomic absorption spectroscopy is ideally suited for the analysis of trace and ultratrace analytes, particularly when using electrothermal atomization. For minor and major analytes, sample are diluted ...

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Atomic Spectroscopy

Atomic spectra consist of narrow peaks (a few nanometers bandwidth) providing two types of analytical information: qualitative analysis (characteristic frequency or wavelength of the absorbed or emitted ...

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What Is Atomic Absorption Spectroscopy? Principles and Uses

By measuring how much of that specific light gets absorbed when it passes through a cloud of vaporized atoms, the instrument can determine exactly how much of that element is present, ...

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Atomic Absorption Spectrophotometry (AAS): Principles, ...

AAS is based on the principle that free atoms in the ground state absorb light of specific wavelengths. This selective absorption allows for the quantitative measurement of elemental ...

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Spectrometers – Visual Encyclopedia of Chemical Engineering ...

Spectrometers use light wavelengths to investigate the chemical composition of a sample. Atomic spectrometers use an analytical method by which one or several elements in unknown mixtures can ...

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Atomic Absorption Spectrophotometry: Principle, Parts, Uses

Atomic absorption spectrophotometry is a widely used analytical technique that involves the measurement of the absorption of electromagnetic radiation by atoms in the gas phase.

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Atomic spectroscopy

In physics, atomic spectroscopy is the study of the electromagnetic radiation absorbed and emitted by atoms. Since unique elements have unique emission spectra, atomic spectroscopy is applied for ...

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What is an Atomic Absorption Spectrophotometer & How Does It Work?

Atomic absorption spectrophotometers offer high sensitivity and selectivity, allowing for the analysis of trace elements in complex matrices. They can analyze multiple elements simultaneously or ...

Contact Us

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