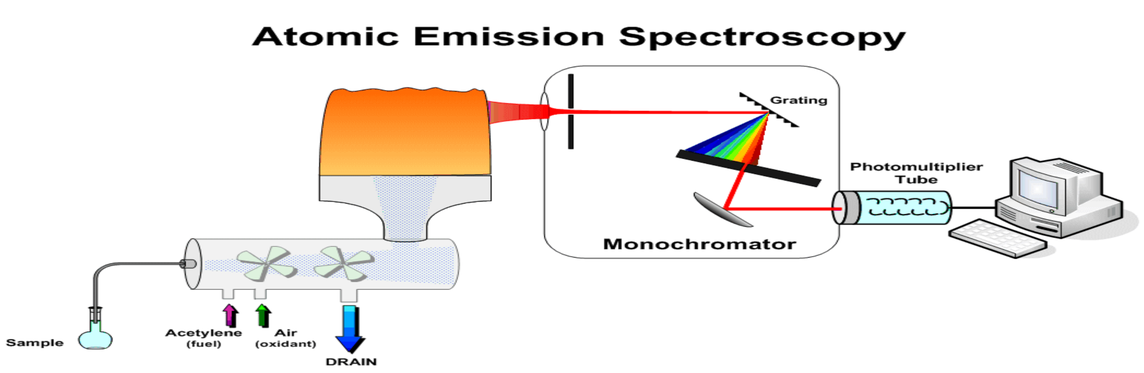
Atomic Absorption Spectrometry (AAS)

Faculty of Engineering RESEARCH CENTER

KOYA UNIVERSITY
Faculty Of Engineering

Atomic Absorption Spectrometry (AAS)

Is an analytical technique that measures the concentrations of elements. atomic absorption is so sensitive that it can measure down to parts per billion of a gram (µg Dm–3) in a sample. The technique makes use of the wavelengths of light specifically absorbed by an element. They correspond to the energies needed to promote electrons from one energy level to another, higher, energy level. Atomic absorption spectrometry has many uses in different areas of chemistry.



Clinical Analysis:

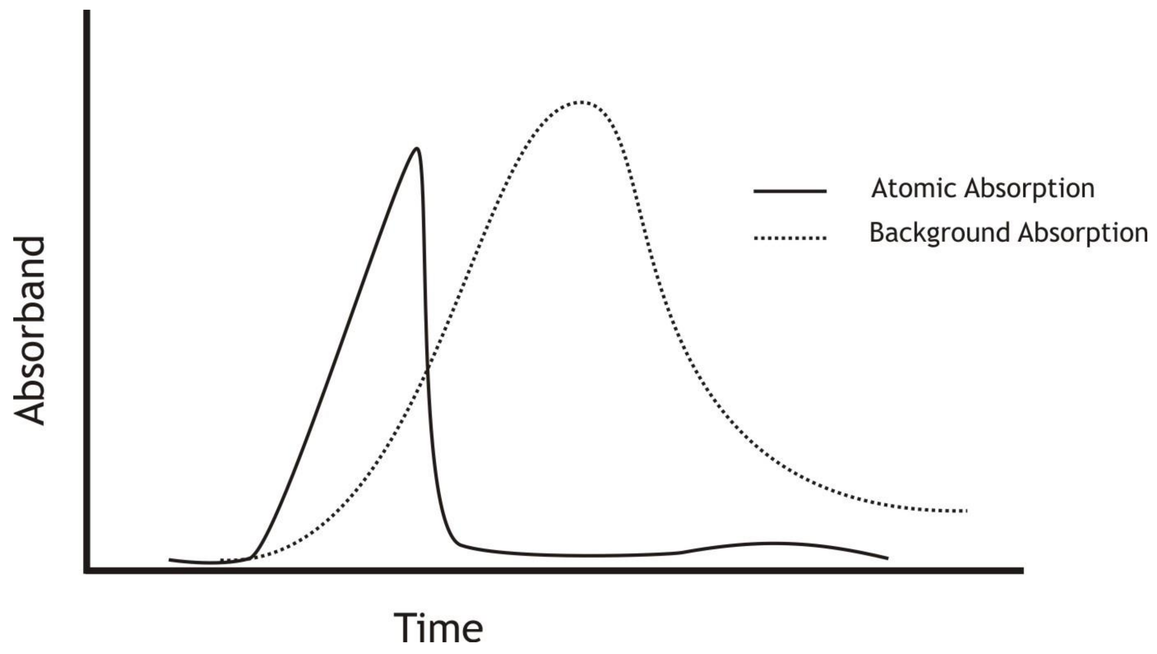
Analyzing metals in biological fluids such as blood and urine.

Environmental Analysis:

Monitoring our environment – eg. finding out the levels of various elements in rivers, seawater, drinking water, air, petrol and drinks such as fruit drinks, fizzy drinks, wine and beer.

Pharmaceuticals:

In some pharmaceutical manufacturing processes, minute quantities of A catalyst used in the process (usually A metal) are sometimes present in the final product. By using AAS the amount of catalyst present can be determined.



Industry:

Many raw materials are examined and aas is widely used to check that the major elements are present and that toxic impurities are lower than specified – eg in concrete, where calcium is A major constituent, the lead level should be low because it is toxic.