

Total Reflection X-ray Fluorescence Analysis.

GLOSSARY

AAS

Atomic Absorption Spectroscopy.

Beryllium window

Unlike most metals, beryllium has a low mass absorption coefficient, which means that the transmission of x-rays is higher. This makes beryllium ideal for use as an x-ray detector entrance window.

Bremstrahlung

Braking radiation produced by the electrons being decelerated in the target of the x-ray tube. These rays with energies from 0 to the maximal corresponding to the accelerating voltage form the continuous part of the x-ray emission from the x-ray tube.

CCD Camera

CCD (Charge Coupled Devices) Image Sensors are used in digital cameras, scanners, and other optical devices. CCDs are widely used in scientific applications where high-quality image data is required.

Chelates

Chemistry. To combine (a metal ion) with a chemical compound to form a ring.

EDXRF

Energy Dispersive X-ray Fluorescence.

EDXRS

Energy Dispersive X-ray Spectroscopy.

EDXS

Energy Dispersive X-ray Spectroscopy.

FET

The Field-Effect Transistor (FET) relies on an electric field to control the shape and hence the conductivity of a channel of one type of charge carrier in a semiconductor material.

FWHM

Full-Width at Half-Maximum. It is a feature be used to assess the resolution of a spectral peak. In EDXRF FWHM is defined as energy resolution measured for Mn-Ka characteristic emission.

ICP-OES

Inductively Coupled Plasma Optical Emission Spectrometry.

IUPAC

International Union of Pure and Applied Chemistry.

Peltier element

A Peltier element is not a heating element or a cooling element, it is a heat pump. It transfers heat energy from one side to the other; the direction of transfer is decided by the polarity of the electrical current that powers it.

PTFE

Polytetrafluoroethylene.