

Energy Dispersive X-ray fluorescence (ED-XRF) Spectrometer

Make: Spectro Xepos Spectrometer

Model: X-LabPro 5

Purpose: To identify and quantify mid and high z elements

The instrument is used to identify and quantify major, minor and trace elements ($z > 13$) in solid and liquid samples.



X-ray tube is made up of Pd anode and the source is operated at 35 kV and 1 mA. The system utilises Mo as a secondary target and Ta as a filter. The samples can be analysed under identical conditions in air or in helium atmosphere.

Working Principle

The X-LabPro 5 system utilises Mo X-rays as the excitation source and the emitted secondary x-rays of the elements present in the sample are detected by Si-PIN detector. Matrix matched standards are required for quantitative analysis. Semi quantitative results can be obtained using fundamental principle method for the materials which do not have standards.

Major Applications

Geological and environmental samples

Metals and alloys

Food and agricultural materials

Pharmaceuticals

Aqueous matrices