Energy Dispersive X-Ray Fluorescence (ED-XRF) spectrometer

Model No. : EX 3600 M, Jordan Valley, Israel

Principle: Characteristic x-rays, which are produced due to the de-excitation of atoms, provide un-ambiguous signature of the elements present in the sample.

Excitation Source:
Low power (50 watt) Rh X-ray tube / Ge secondary target with provision for seven secondary filters to reduce the continuum background.

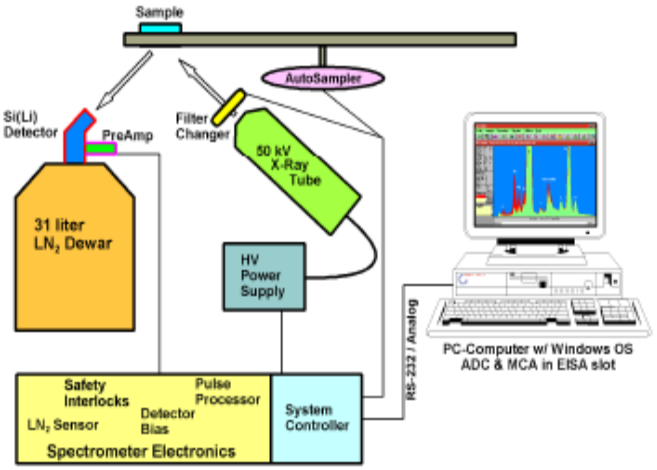
Detector: LEO Si(Li) detector having R=140 ± 10 eV at 5.9 keV of Mn K X-rays

Elements Range: Al to U, For Low Z elements He purging and Vacuum facility

Concentration range: ppm to % level

Samples form which can be analysed: Solids, Liquids, Powders

Nature of samples: Metallurgical, Biological, Geological, Forensic etc.



Type of Analysis at ACD, BARC:
Quantitative, Qualitative, Rapid survey analysis for identification purposes

Determination of Cr, Cu, Zr, Nb, Al in alloy samples
Determination of As, Hg etc. in ion exchange membranes , which are used for either preconcentration or separation
Analysis of brass, steel, incoloy samples for the determination of elemental composition