



Sant Longowal Institute of  
Engineering & Technology,  
LONGOWAL - 148106 (Pb) INDIA

# CENTRAL FACILITY LAB ADVANCED R&D EQUIPMENTS

## X-RAY DIFFRACTOMETER

X-ray diffraction (XRD) is a technique used to analyze the crystal structure of materials

### SOFTWARES

- ✓ DIFFRAC.EVA for general analysis
- ✓ TOPAS for refinement (Rietveld)
- ✓ LEPTOS for residual stress, GIAXRD (Thin films)
- ✓ Small Angle X-ray Scattering (SAXS)
- ✓ TEXTURE for preferred orientation

### APPLICATIONS

- ✓ Phase Composition (Qualitative & Quantitative)
- ✓ Crystal Structure
- ✓ Residual Stress
- ✓ Microstructures
- ✓ Lattice Parameters
- ✓ Percent Crystallinity
- ✓ Amorphous Content



- ✓ **TWO THETA RANGE:**  
0 - 154°
- ✓ **X-RAY GENERATOR:**  
40 kV - 40 mA
- ✓ **Cu ANODE X-RAY TUBE:**  
Line Focus & Point Focus
- ✓ **X-RAY WAVELENGTH:**  
1.54 Angstrom  
(Cu K alpha)
- ✓ **DETECTOR:**  
LYNXEYE XE (OD, ID & 2D)

X-ray Diffractometer Samples may be sent for  
Analysis to: **Prof. Harish Chopra, CHAIRMAN,**  
Central Facility Lab., Science Block, SLIET,  
Longowal - 148106 (Pb) INDIA

Contact Us



E-mail

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Website (For details/Rates)

<http://sliet.ac.in/2020/06/circular-for-charges-for-testing-analysis-on-xrd-system/>