

APPLIED SCIENCE DEPARTMENT

Sample Analysis using AFM & PLS

Following equipments of Nanotechnology laboratory are available for Sample Characterization and Analysis at approved charges:

1. **Atomic Force Microscope (AFM):** Atomic Size/ Topographic Measurements

Instrument: Advance-Tech (USA)_ AFM Workshop (TT)

Modes: Vibrating, Non-vibrating

Scanner: 50 Micron XYZ scanner;

XY Resolution: <3nm closed loop, <0.3nm open loop

Z sensor noise: <5nm

Probes: Industry standard (Si - Cantilever)

Sensor: Light lever AFM force sensor

Sample: Solid, Pellet or thin film on substrate (1×1 inch) in size

Software: AFM image recording; Gwyddion for Image Analysis

Charges: Academic Institutes: Rs. 1200/- per sample
Industry/Others: Rs. 2500/- per sample

2. **Photo Luminescence Spectrometer (PLS):** Optical Properties of Materials

Instrument: Shimadzu _ Spectrofluorophotometer (RF 5301PC)

Light Source: Xenon lamp, Monochromator

Wavelength Scan range: 200-900 nm

Wavelength Measurement range: 220-750 nm

Detector: PMT,

S/N ratio: 150 or more at Raman peak of distilled water

Temperature Range: 5°C to 80°C

Sample: Liquid, Powder, Solid: Pellet or Thin film (1×1 inch)

Software: Data acquisition, File operation, Data manipulation

Charges: Academic Institutes: Rs. 150/- per sample
Industry/Others: Rs. 300/- per sample

- Researchers/User has to come personally with prior appointment for sample analysis. GST @ 18% will be charged extra. Charges may be paid in cash or DD in favor of Director, NITTTR Chandigarh.

For appointment: Contact **Professor (Dr.) BC Choudhary**,
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Note: Please bring CDROM for soft copy of data, Images and Spectrums.