

Material Characterization Laboratory

2 Credit (0-0-3)

1. Determination of precision determination of lattice parameters using an x-ray diffractometer pattern.
2. Study the absorption spectra of given specimen using UV-Vis also calculate band gap.
3. Determine the structures of molecules using FTIR
4. Study the chemical composition and structure of material using Raman Spectroscopy
5. Study the absorption spectra of given specimen using Photoluminescence.
6. Study the surface morphology using Atomic Force Microscopy
7. Study recording media or magnetic sample using Magnetic Force Microscopy.
8. Study the distribution of grains using Scanning force Microscopy and also find average the grain size.
9. Calculate the particle size using zeta seizure.
10. Optical microscopy of ferrous samples.(Mild Steel , High Carbon Steel, Cast Iron, Stainless Steel
11. Optical Microscopy of Non –Ferrous Samples. (Cu, Zink Brass, Pb-Sn).