

## AMMR-20 MATERIALS CHARACTERIZATION-II

1. Thermal analysis tools,
2. Thermometry and dilatometry, calorimetry,
3. Differential scanning calorimetry (DSC), DTA,
4. Temperature modulated calorimetry,
5. Thermomechanical analysis, DMA and DETA, Thermogravimetry,
6. X-ray fluorescence, photoluminescence, UV photoelectron spectroscopy,
7. Fourier transform IR spectroscopy, Laser Raman spectroscopy, photoelectron spectroscopy,
8. Auger electron spectroscopy, secondary ion mass spectroscopy,
9. Electron energy loss spectroscopy, solid state NMR, scanning tunneling microscopy, atomic force microscopy,
10. Rutherford back scattering spectroscopy,
11. Particle induced x-ray emission, neutron activation analysis,
12. Mossbauer spectroscopy, positron annihilation spectroscopy.

### Reference Books:

1. "An Introduction to Material Characterization" by Khangaonkar P R
2. "Characterization of Materials" by Mitra P K