








Facility	Manufacturer and model	Function	Specification	
X-Ray Diffractometer	Bruker D8 Advance, Germany	XRD on powder samples and thin films	Theta – 2 Theta Goniometer Geometry	
Microprocessor controlled Muffle Furnace	Weiber, ACM 82301, Germany	Annealing samples in atmosphere, gas environments	Operating temperature: RT – 1400 °C	
Optical microscope	Leica, DM-2500M, Germany	Surface Characterization of samples	2500 x Magnification	
Raman Spectrometer (In the process of procurement)	Advantage 532, DeltaNu, USA	Sample characterization, Phase and Bonding nature analysis	Laser 532 nm Wave-number range 200 – 3400 cm <sup>-1</sup>	
Gamma Ray Spectrometer	CANBERRA, USA	Compton Profile Study, Momentum distribution	High purity Germanium detector	
Vacuum coating unit	Vacuum Equipment Co., Noida	Thin film deposition	10 <sup>-6</sup> Torr	
Spin Coating unit	SCV 2007, Apex Instrument Co., Kolkata	Polymer thin film deposition	4000 rpm	

UV-VIS-NIR Spectrometer	Perkin-Elmer, Singapore	Optical Properties of Thin film, Solids and liquid samples	190-1100 nm	
Weighing Machine	Sartorius PA124S	Weight measurements of chemicals	Up to 0.0001 g	
Keithley Electrometer	Keithley, USA	Impedance, Conductivity measurements	-	
Differential Scanning Calorimeter	Netzsch, GmbH Germany	Thermal Analysis	175 -375 K	
Hydraulic press unit	KBr Press, Model M-15 Technosearch Instruments, India	For making pellets of powder samples	Up to 15 Tonnes pressure	