





MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE



Department of CHEMISTRY - Research Facilities

Sl. No.	Name of the instrument/equipment	Specializations	Brief Description	Instrument / Equipment
1	UV-Vis Spectrophotometer	Double Beam / PD Array	For Optical and kinetics measurements	
2	Digital Balance	3-Digit precision	For Weighing micrograms	
3	Ultra-sonicator	Probe Type	For ultrasonic liquid reactions	





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4	Muffle Furnace	Up to 900 C	Dual set Programmable	
5	Dielectric constant kit	Dual mode	For solid samples	
6	Hydraulic press	15 Tons	With 4 different types of Sample dye	



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7	ICE Maker	0.625 kg/Hr	3 different cube size	
8	Water Distillation Unit	3.5Ltrs/Hr	double jacket condenser with ceramic coil	





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S.No	Name of the equipment	Specifications	Brief description	Equipment
9	UV-Cabinet	Dual wavelength	For Chromatographic Development	
10	Micropipette	2-20/20-200/100-1000 Microliters'	For low volume sample preparation	
11	High speed centrifuge	with Rotors of 3 different volume	programmable with up to 24k rpm	
12	Magnetic stirrer	With RPM controller and heating element	suitable for reactions up to 500 ML	


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13	Universal Testing Machine	5kN	To measure mechanical properties of paper and polymers	
14	Laser Particle Sizer	Laser light scattering/Mie Scattering based Determination of Size	TO measure polymers and nanomaterials/ particle sizes	

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S.No	Name of the equipment	Specifications	Brief description	Equipment
13	Hydrothermal Reactor	Fixed volume reactor	suitable for Hydrothermal reactions in pilot	
14	Ultrasonic Bath	Water based Sonicator cleaner	for cleaning and small-scale reactions	
15	Vacuum Pump	Membrane based pump	For moderate vacuum applications	
16	Muffle Furnace2	Up to 1300 °C	With programmable and dual set mode	

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S.No	Name of the equipment	Specifications	Briefdescription	Equipment
17	pH Meter	For 1-14 range of pH measurement	For measuring pH of liquid sample	
18	Mechanical Stirrer	with adjustable motor height and controller for RPM	Used for stirring liquid samples for Homogenization	