

CENTRAL RESEARCH LAB

EQUIPMENTS SANCTIONED BY DST-FIST

S.No	Instrument Name	Cost (lakhs)
1	High temperature furnace Make: Kanthal, India	10.37
2	Planetary ball mill Make: Retsch, Germany; Model: PM100	12.44
3	Sonicator Make: Sonics, USA; Model: VCX 750	4.39
4	Spin & dip coating system Make: Apex instruments, India; Model: spinNXG-P1, Xdip-SV1	1.96
5	Transformer with Breakdown tester Make: HI-VOLT, India; Model-AC100-5	13.33
6	LCR Meter with Accessories Make: HIOKI, Japan; Model: IM3536	6.17
7	Ultrasonic pulse receiver Make: NDTs, USA; Model: DPR500	12.02
8	Contact angle Make: Kruzz, Germany; Model: DSA25B	9.06
9	Spectrofluorometer Model: FP830 Make: JASCO, Japan with accessories	20.07
10	Pelletizer & Incinerator Indigenous	9.97
TOTAL		99.81

OTHER CENTRAL RESEARCH EQUIPMENT

S.No.	EQUIPMENT NAME	Cost (lakhs)
1	High Pressure Reactor	5.0
2	Cryogenic Reactor	4.4
3	Rotary Evaporator with Recirculating Chiller	4.18
4	Glove Box	3.30
5	Vacuum Oven with Vacuum Pump	1.11
6	Platinum Crucible	3.77
7	Hot Air Oven	2.30
8	8-Cell RCPT Apparatus with DAQ System	1.98
9	Test Equipment's	1.08
10	ANSYS FLUENT Unlimited Nodes	7.0
11	HPC Work Station	5.5
12	DESIGN BUILDER	3.5
13	Other equipments	10.02

CENTRAL RESEARCH FACILITY



SYNTHESIS AND CHARACTERISATION LABORATORY



CFD AND NANO SYNTHESIS LABORATORY

DST FIST EQUIPMENTS



High temperature furnace



- **High temperature furnace** Make: Kanthal, India is used to melt and calcinate the powder and solid sample up to 1500 °C

Planetary ball mill



- **Planetary ball mill** is used to pulverize the material mix, homogenize the colloidal milling and mechanical alloying. Planetary ball mill work at speed of 400 rpm

Transformer with Breakdown tester



- **Transformer with Breakdown tester** : Plasma treatment of bio-glass and bio-ceramics, non-destructive analysis of polymer composite, breakdown analysis of various composites

Contact angle Measurement System



- **Contact angle Measurement System** used to determine a solid-surface's characteristic surface free energy. The wettability namely hydro-phobicity and hydro-philicity of the surface of a solid material can be measured.

Spectrofluorometer



- **Spectrofluorometer** : Used in the research of the photo-physical properties of the newly developed luminescent (fluorescent and phosphorescent) materials

Automatic compression testing Machine



- **Automatic compression testing Machine**, For measuring the compression strength of building materials. Capacity:- 3000 kN Aimil
Software:- 01 set 8 Channel Indicator for Strain Gauges & data logger along with strain gauge signal conditioner