

## **Aryabhatta Centre for Nanoscience and Nanotechnology, School of engineering and Technology: Scientific Research Equipment**

### **1. Automatic pH and Conductivity meter**

*(Make: Mettler Toledo AG, Switzerland)*



### **2. Water cooled bench top grinding machine (Planetary ball mill type)**

*(Make: Retsch, Germany)*



### **3. Microprocessor based High-Temperature Furnace (Temperature range: upto 1800°C)**

*(Make: Nabertherm, Germany)*



### **4. Dynamic Light Scattering Particle Size cum Zeta Potential Analyser (Make: Micromeritics Instruments Corp., USA)**



### **5. X-Ray Diffractometer with temperature (lq. N<sub>2</sub> - 1200°C) variation facility**

*(Make: Bruker, Germany)*



### **6. Scanning Electron Microscope (Make: Carl Zeiss Microscopy Ltd., UK)**



### **7. Digital Refractometer with temperature variation facility**

*(Make: Mettler Toledo AG, Switzerland)*



### **8. UV-Vis-NIR spectrophotometer with temperature variation facility**

*(Make: PerkinElmer, UK)*



### **9. FTIR spectrophotometer (PerkinElmer, UK) (Make: PerkinElmer, UK)**

### **10. Photoluminescence measurement system with temperature variation facility (Make: PerkinElmer, UK)**

### **11-13. Atomic Force Microscope cum Scanning Tunnelling Microscope (Make: NT-MDT, Ireland)**



14. High Temperature ( $lq.$   $N_2$  - 1600°C) Simultaneous TG-DTA / DSC Analyser  
(Make: NETZSCH Technologies, **Germany**)



15. High Precision Dilatometer (NETZSCH Technologies, Germany) (Make: NETZSCH Technologies, **Germany**)



16. Impedance Analyser (40 Hz – 110 MHz) with temperature (up to 1000°C) variation facility. (Make: Keysight Technologies, USA)



17. Precision Multiferroic Test System ( $P-E$ , piezoelectric, pyroelectric, magneto-electric for bulk and thin-films) with temperature variation facility (Make: Radian Technologies Inc., **USA**)



18. Vibrating Sample Magnetometer with temperature variation facility (Make: **Lake Shore Cryotronics, Inc., USA**)



19. Nanoparticle Tracking Analysis system (Make: Malvern Instruments, UK)



20-21. Micro Twin Screw Extruder and Micro-Injection Moulding Machine(Germany)



23. Microwave assisted Hydrothermal technique for nanomaterial synthesis (Milestone, Italy)

