

Recurring assets

- 1. Colorimeter**
- 2. Digital Conductivity Meter**
- 3. Heating Mantle**
- 4. Hot Air Oven**
- 5. Laboratory Refrigerator**
- 6. Magnetic Stirrers**
- 7. Mechanical Shaker**
- 8. Micro Weighing Balance**
- 9. Microwave Oven**
- 10. pH Meter**
- 11. Spectrophotometer (UV/Vis)**
- 12. Ultrasonic Bath (Sonicator)**
- 13. Vacuum Pump**
- 14. Vortex Mixer**

Colorimeter



Colorimeter is a device that measures the absorbance of particular wavelengths of light by a specific solution. It is commonly used to determine the concentration of a known solute in a given solution.

Location: Instrumentation Lab, Department of Chemistry.

Digital Conductivity Meter



Digital Conductivity Meter is a reliable and accurate test instrument for measurement of Electrical Conductivity (EC) of aqueous solutions. They measure Conductivity and TDS. It is used in various experiments regular and extension experiments.

Location: Instrumentation Lab, Department of Chemistry.

Heating Mantle



Lab heating mantles are used to uniformly heat various lab and glassware vessels. These are used in various extension experiments, research internships and projects.

Location: Room no. 102, Research Centre

Hot Air Oven



A hot air oven is an essential laboratory equipment that uses dry heat (hot air) to sterilize laboratory objects and samples. A hot air oven is generally used for samples that are heat resistant and do not melt, change the form or catch fire on exposure to high temperatures.

Location: Room no. 102, Research Centre.

Laboratory Refrigerator



Laboratory refrigerator is a very essential equipment. It is used to store samples and chemicals which are temperature sensitive and needed storage and low temperature.

Location: Room no. 102, Research Centre

Magnetic Stirrers



The magnetic stirrers are used to agitate liquids to speed up reactions or enhance mixtures. Magnetic Stirrers are commonly used in chemistry and biology experiments for sample preparation and analysis.

Location: Physical Lab, Department of Chemistry.

Mechanical Shaker



A mechanical shaker is an instrument used to stir or shake liquid or solutions. The device operates on the principle of rotation, combining controlled circular motion with adjustable speed and timing. This functionality allows it to create consistent and homogenous mixing conditions, crucial for a wide range of applications across diverse scientific disciplines.

Location: Lab-2, Department of Chemistry.

Micro Weighing Balance



A micro weighing balance is an exceptionally precise instrument used for weighing very small samples with a high degree of accuracy. It is extensively used in various research projects and internships.

Location: Research Centre.

Microwave Oven



Microwave oven is used to carry out various reactions using microwave radiation. Microwave radiation has proved to be a highly effective heating source in chemical reactions. Microwaves can accelerate the reaction rate, provide better yields and uniform and selective heating, achieve greater reproducibility of reactions and help in developing cleaner synthetic routes.

Location: Room no. 102, Research Centre.

pH Meter



pH meter is used to carry out pH measurements. A pH meter is an instrument used to measure acidity/alkalinity of a solution. It is commonly used in various regular and extension experiments and research projects.

Location: Physical Lab, Department of Chemistry

Spectrophotometer (UV/Vis)



UV-Vis spectrophotometer is a powerful instrument used in various scientific fields to measure light absorbance across the electromagnetic spectrum's ultraviolet (UV) and visible (Vis) ranges. By measuring the intensity of light passing through a sample solution and comparing it to the intensity of the incident light, a UV-Vis spectrophotometer provides valuable information about the properties of materials and their interactions with light.

Location: Instrumentation Lab, Department of Chemistry

Ultrasonic Bath (Sonicator)



Sonicators are high-frequency tools (20 kHz) that use ultrasonic energy to agitate particles in liquids. These devices are employed to facilitate a wide variety of processes, such as mixing, cleaning, degassing, cell disruption, and sample preparation. The use of delicate instruments in the laboratory makes ultrasonic a perfect technology for cleaning and reprocessing. The gentle yet effective cleaning action ensures that contaminants are removed but instruments are not damaged.

Location: Physical Lab, Department of Chemistry.

Vacuum Pump



Labs routinely use laboratory vacuum pumps in order to do the following: Provide suction that drives the filtration or aspiration of suspended or liquid samples. Control or induce solvent evaporation through the reduction of vapor pressure, like in concentrators, rotary evaporators etc. It is most often used during vacuum filtration of the solutions.

Location: Instrumentation Lab, Department of Chemistry.

Vortex Mixer



A vortex mixer, or vortexer, is a simple device used commonly in laboratories to mix small vials of liquid. It is used in bioscience, microbiology, biochemical, and analytical laboratory settings to mix small vials of liquids in a quickly oscillating circular motion. When the motion of the rubber cup holder on the mixer is transmitted to the liquid sample, a vortex is created.

Location: Physical Lab, Department of Chemistry