

ওয়ার্জেদ মিয়া বিজ্ঞান গবেষণা কেন্দ্রে স্থাপিত বৈজ্ঞানিক যন্ত্রসমূহ:

1. **Elemental Analyzer**

Elementar, Germany **Model Vario EL Cube**

Elemental Analyzer is a PC controlled Windows based, simultaneous type Carbon, Hydrogen, Nitrogen and Sulfur(CHNS) analyzer for both solid and liquid samples. It is the most flexible instrument for the universal elemental analysis (Micro & Macro) of CHNS, as well as optional O and Cl.

2. **Advanced Research Microscope**

Olympus, Japan, **Model BX4+DP72**

The Advanced Research Microscope with Digital camera(12.8 Mega Pixel) PC compatible or stand alone for Bright field, Phase contrast, Dark field, and fluorescence and Polarizing application: Anti-fungus objective. Trinocular observation/ photo tube/ Light path adjustment) a) Bi 100%, b) 20%, Tri 80%, c) 100%.

3. **Trinocular Stereo Zoom Microscope**

Micros Austria **Model “VIPER”, MZ 3000**

Zoom Ratio: 1:10, Zoom Range: 0.8x-8x, Standard Magnification 8x-80x, Total Magnification Range: 4x-320x.

4. **Refrigerated Ultracentrifuge**

Hettich, Germany, **Model ROTINA 420R**

The centrifuge machine has following performance: Max. Speed :15,000rpm. Max RCF: 24,400. Max Capacity:4×600ml. Cooling system :-20° C to + 40° C (or -4° F to + 104° F)

- a) Rotor 8 place, with lid including suspension for 1×50ml tubes
- b) Angle rotor, 30×1.5/2ml with lid.
- c) Adapter for microlitre tubes 1.5ml,

5. **Ultrasonic Bath**

BANDELIN Electronic, Germany, **Model Sonorex DK Digital 512P**

This Ultrasonic Bath has following performance:

Suitable for aqueous cleaning solutions, Number 10 data programs memories facility available. Digital display of time, temperature and power, Capacity: 13 liters, Built-in heating 20-80°C thermostatically controlled, Setting time: 1-99min.

6. **Ultralow temperature freezer**

Binder, Germany, **Model UF V700**

The ULTRA.GUARD™ ultra low temperature freezer of the UF V series from BINDER ensures safe long-term storage of samples at -40° to -86 °C. It also has personalized access control via

RFID: This ensures that only laboratory employees accredited by the laboratory manager can open the ultra low temperature freezer.

7. Shaking Incubator

Product no. 3032, GFL. Germany

Model: Sonorex DK Digital 512P

Shaking frequency: 10 – max. 250rpm.

Shaking amplitude: 25mm

Volume/ Capacity:

Approx. 45 ½ shaking trays . For vessel height of more than 150mm 1 shaking tray.

Interior dimensions (W ×D ×H) 450×300×710 mm

8. PC Based Automated Electro chemical Workstation

Brand: BASi (Bioanalytical System, Inc), USA

Model: Epsilon

9. Complete Immersion-Well Photochemical Reactor

Brand: (Southern New England Ultra violet Company).

Origin: UK

Model: Rayonet RPR-200

10. Atomic Absorption Spectrophotometer :

Shimadzu Model AA- 7000 F PC Controlled Atomic Absorption Spectrophotometer (Full System).

11. High Performance Liquid Chromatograph (HPLC) :

Shimadzu PC Based Binary Gradient Automated High Performance Liquid Chromatography (HPLC)

Prominence System with UV-VIS Detector.

12. FTIR Spectrophotometer:

Shimadzu Model IR Prestige – 21 PC Based Fourier Transform Infrared Spectrophotometer with temperature controlled high Sensitivity DLATGS Detector, Advanced Dynamic Alignment System with Ge coated CsI beam splitter for Far Infrared measurement system (5000 -240 cm^{-1}).

13. UV- VIS Spectrophotometer

Anlytikjena AG Model Specord 205 PC controlled Double Beam Spectrophotometer, wavelength range 190 – 1100nm with Windows based WinAAS software ; accessories include temperature controlled cell holder with magnetic stirrer and cooling water circulating system.