

إمكانيات مركز الخدمات الصيدلية

YOUNGLIN High Performance Liquid Chromatograph (HPLC):-

- High performance liquid chromatograph is a form of column chromatography used frequently in biochemistry and analytical chemistry to separate, identify, and quantify compounds based on their idiosyncratic polarities and interactions with the column's stationary phase.



- **Gradient Pump:** flow rate ranges from 0.001 to 16.0ml/min., max. pressure= 6000 psi, 4 gradient channels with vacuum degasser and mixer, solvent delivery mode(isocratic, gradient and constant pressure)

- **Detector:**

1. **UV/Vis. Detector:** Wave length (190-900 nm.), Lamp (tungsten and deuterium)



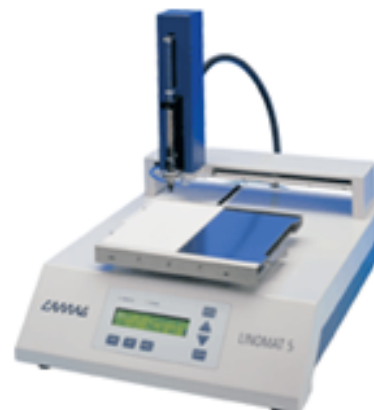
2. **Fluorescence Detector:** wave length rang (220-700nm) for excitation and emission wave lengths.



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CAMAG TLC Scanner And Applicator:-

- **The Linomat 5 applicator** offers semi-automatic sample application (only changing of sample, cleaning, filling and replacing the syringe is performed manually) used for qualitative and quantitative analyses as well as for preparative separations.



- **The TLC Scanner 3** is the most advanced workstation for densitometric evaluation of Thin-Layer Chromatograms. It can also be used for densitometric measurements of other planar objects, such as electrophoresis gels. Only the positioning of the object to be measured is performed manually.



- **The scanner** transmits all measurement data in digital form to the computer for further processing, and features three light sources - a deuterium lamp, a halogen-tungsten lamp and a high pressure mercury lamp which can measure reflection, either in absorbance or fluorescence mode and it has spectral range from 190 to 800 nm with scanning speed 1-100 mm/s and Object formats up to 200 x 200 mm.

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PerkinElmer Gas Chromatograph (GC):-

- It is a common type of chromatography used in analytic chemistry for separating and analyzing compounds that can be vaporized without decomposition. Typical uses of GC include testing the purity of a particular substance, or separating the different components of a mixture, identification and preparation of pure compounds from a mixture.
- **Carrier gas:** nitrogen
- **Detector:** FID, ECD
- **Columns:** Capillary column (30m & 0.25mm ID 0.25 μ m, 60*0.25mm 0.25 μ m) and Packed column.



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THERMO Gas Chromatography – Mass Spectrometry (GC-MS):-

- The DSQ II with the FOCUS GC is a space-saving quadrupole GC/MS designed for laboratories wanting the ultimate in GC/MS performance but having limited space and funds. The system combines the advanced, next-generation curved optics of the industry-leading DSQ II with the small footprint of the FOCUS GC to create a compact but powerful analyzer for environmental, petrochemical, forensics, toxicology and QA/QC applications.
- This source and detector combination allows detection of smaller concentrations of compounds in difficult matrices, which translates into less prep time, smaller injection volumes, less sample usage, more confidence - real productivity. No more background noise from excited neutrals, no more sample contamination of the sensitive quadrupoles; the curved pre-filter efficiently removes it.



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THERMO Fourier Transforms Infrared Spectrometer (FT-IR):-

- Fourier transform spectroscopy is a measurement technique whereby spectra are collected based on measurements of the coherence of a radiative source, using time-domain or space-domain measurements of the electromagnetic radiation or other type of radiation.
- ATR technique is non destructive with little or no sample preparation.
- ATR technique can be used to analyze samples that allow good contact with surface of crystal (**Zn-Se**) ex. Glues, Paints, Viscous Liquid, Fibers and Powders.



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PerkinElmer LS 45 Fluorescence Spectrometer:-

- Fluorescence, Phosphorescence and Bio-Chemiluminescence's measurement modes
- Spectral scanning, including excitation (200-800 nm.), emission (200-650nm),
- 3D Excitation/Emission (EEM), 3D synchronous scanning and 3D kinetic scanning.
- Single and multiple-wavelength kinetics.
- It is used for bioscience/pharmaceutical applications as Vitamins, biogenic amines, drugs, substance abuse, gene expression and discovery, novel drug delivery systems combinatorial drug discovery, membrane structure studies, toxicity assays, and cell function assays.



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HORIBA's LA-300 Laser Diffraction Particle Size Distribution Analyzer:-

- It is providing a wide range of statistical measures (0.1 - 600 μ m), data analysis, and presentation tools with automatic alignment, built-in ultrasonic system for sample dispersion, and powerful pumping system. It provides fast analysis within 20 seconds, with class-leading accuracy and precision.



ADP 410 Polarimeter:-

- The ADP410 polarimeter has been specifically designed to measure rotation of optically active samples with a resolution to 0.01.



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Tablet Hardness Tester 5Y:-

- The Tablet Hardness Tester 5Y has been successfully measure tablet breakage, mean, standard deviation, relative standard deviation, Minimum, maximum, and range of your data. Up to 100 measurements can be calculated and stored for statistical analysis.



Sartorius ME5 Microbalance:-

- The Sartorius ME^o meets the specs with weigh up to 5g with 1 µg readability. Stabilize readings within an ultra fast 10 seconds, for maximum time savings with each weighing operation.
- It is used for minimal sample quantities µg-accurate weighing of toxic, hygroscopic, or heavily oxidizing samples can be done in laminar flow boxes, glove boxes or under fume hoods
- Areas with strict demands on cleanliness
- Differential weighing (ashing or incineration, drying, measurement of coatings, checking spillage quantities, etc.)
- Mass determination that allows for air buoyancy
- Air density determination for metrological weight analyses



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IlShin Freeze Dryer:-

- The aspect of freezing (Lyophilization) is dehydration of frozen samples under vacuum, this condition minimize oxidation and other degradation process.
- This High capacity sealed refrigeration system can drop inside chamber temperature down to -40 degree in a short time to pre-freeze the sample.
- It is used for drying of sera, antibiotics, enzymes, laboratory samples and food.



IlShin Deep Freezer:-

- ultra low temperature environment up to -85 °C
- It is used for storage and freezing of important samples as medicine and biological products and for biotechnology industry, and ice makers used for test tubes and micro tubes.



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WiseVan Dry Oven:-

- This oven is Suitable for Drying, Baking, Conditioning, Curing, Pre-Heating and Aging.
- Ideal for Culturing Cells to Hybridization, Staining and Destaining Gels, and Combinatorial Chemistry.
- Temperature range from +5°C to 250°C
- Programmable time range up to 99h 59 min.



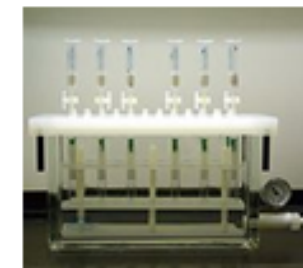
Digital Ceramic Top Hot Plate:-

- This hot plate used for heating and stirring purpose of laboratory mixing solutions, including sample preparation, heating reagents, melting paraffin, warming resinous chemicals, solvent evaporations, titration and media preparation and sterilization using glass or metal vessels.
- It has temperature range from 5 to 450 °C and stirring speeds from 60 rpm up to 1200 rpm.



SPE Vacuum Manifold:-

- It is used for Solid phase extraction sample preparation, filtration, and elution are available 24-port configurations. These manifolds help in achieving consistent extraction and filtration results. Multiple samples processing with these manifolds simplify procedures and saves time.



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Autoclave:-

- An autoclave is a device to sterilize glassware, medical waste also it can be used in veterinary science, mycology, dentistry, podiatry and in microbiology this can be achieved by subjecting them to high pressure steam (40 to 127°C), typically for (0 to 10 hr).



WiseShake Digital Shaker-

- Ideal for culturing cells to hybridization, staining and destaining gels and combinatorial chemistry.
- Optimal platform rotation for intensive mixing.
- Digital timer: Max. 99hr 59min.



Hettich MIKRO 200R Microcentrifuge:-

- It is used to separate substances or substance mixtures with a density of maximum 1.2 kg/dm³, Human origin and thermosensitive samples.
- It has a maximum speed of 14,000 RPM and with temperature range of -10°C to +40°C. Also it refrigerates quickly to +4°C with the Fast Cool function in 10 to 15 minutes.



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Homogenizer:-

- A homogenizer is used for the homogenization of various types of material, such as tissue, plant, food, soil, and many others with electronic speed control gives 10,000 to 35,000 rpm for volumes of 0.1ml.



Labnet VX-200 Vortex Mixer:-

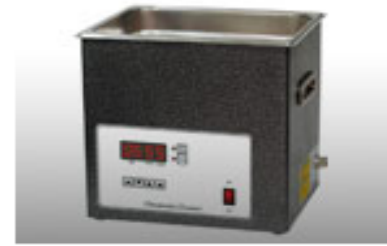
- Circular orbit allows vortex motion to be achieved even at low speeds
- Utilizes an optimized counter balance system to minimize vibration.
- Speed Range: 0 – 2,850 rpm
- Operating Modes: Touch or Continuous



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Ultrasonic Cleaner:-

- This special design of ultrasonic cleaner (UC- 5150B) is an ideal instrument used for improving both dissolution and emulsifications in solution. Also it has great degassing without causing pollution to environment; therefore it has been widely used in biochemical, chemical, and medical fields



effect

Double Water Distillator & Single Water Distillator



- Used to produce highly purified laboratory water for biochemistry and trace analysis.
- Output approximately 4 Liters per hour of high purity distillate.



- Used for purification of laboratory water
- Output approximately 3 Liters per hour of high purity distillate.

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Conductivity/Ph/mV/Ion/Salinity Meter (JENWAY, Model: 4330):-

- It is a specified unit designated to measure and display both conductivity and PH simultaneously.



Jenway Model 3505 Laboratory pH Meter:-

- Laboratory pH/mV meter with rotary controls for mode selection, pH calibration and manual temperature adjustment (0 -100°C).



- Unique CombiCup head design can be used with a single tube or a whole handful of optional heads.



- Optional heads accept microplates, microtubes, PCR strip tubes, 15 and 50 ml tubes and blood tubes.