



Office of
**Research, Innovation
& Commercialization**

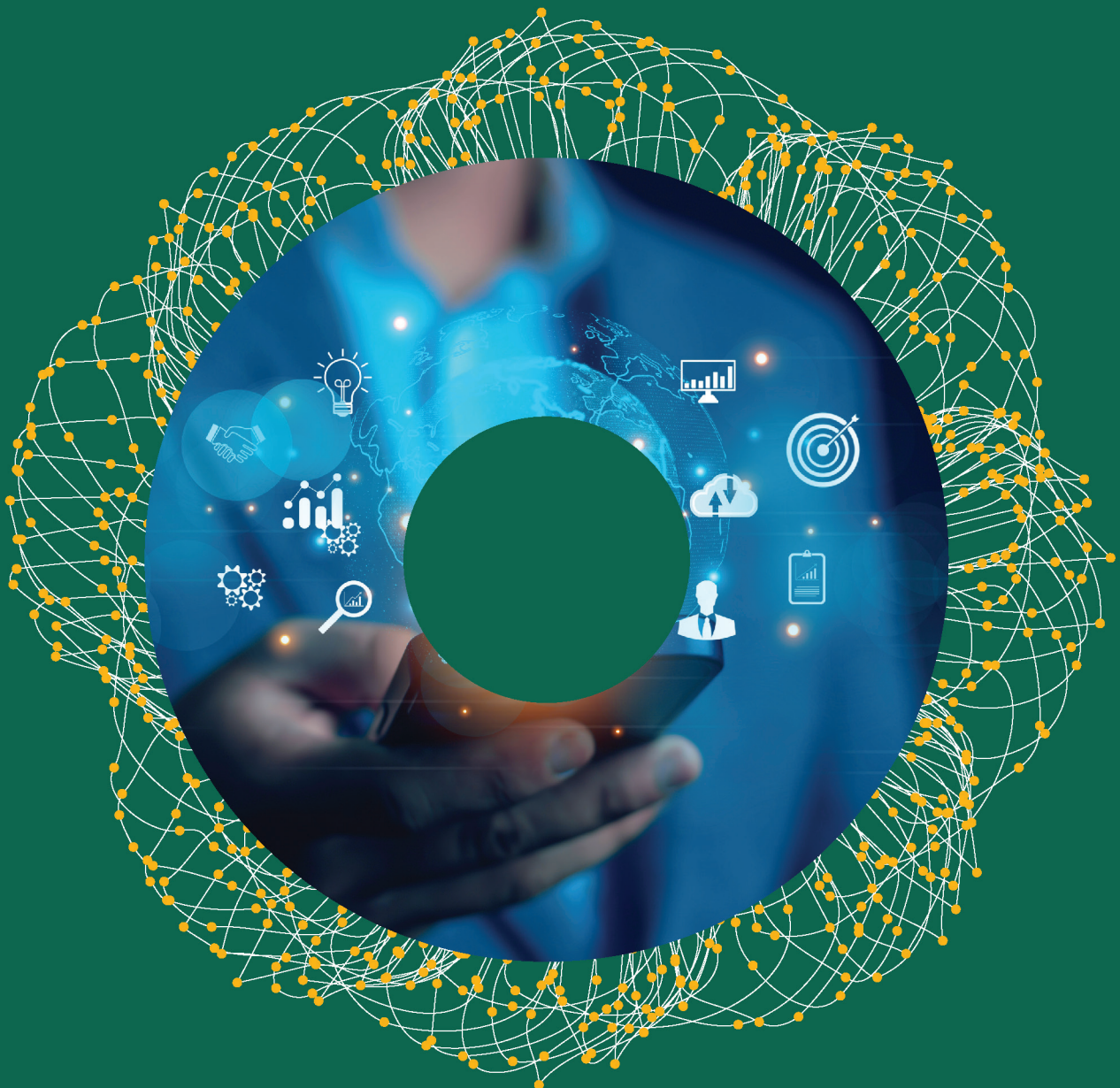
Commercialization Handbook

Faculty of Science & Technology

Prepared by

Office of Research, Innovation and Commercialization

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ORIC UCP

University of Central Punjab



Table of Contents

1. Faculty of Science & Technology (FOST)

- 1.1. Rotary Evaporator (with Water Aspirator)
- 1.2. TDS Meter
- 1.3. Texture Profile Analysis
- 1.4. Milkoscan
- 1.5. PCR Machine
- 1.6. Hematology Analyzer
- 1.7. Antimicrobial Susceptibility Testing
- 1.8. Semi-Automated Chemistry Analyzer (Spectrophotometer)
- 1.9. UV-Vis Spectrophotometer
- 1.10. Microplate Reader (UV-Vis Spectrophotometer Based)
- 1.11. AMP Piccos II Chemistry Analyzer
- 1.12. Digital Viscometer
- 1.13. Growth Chamber
- 1.14. UV Spectrophotometer
- 1.15. Gradient5 PCR MiniAmp
- 1.16. Inverted Microscope
- 1.17. Real-Time PCR System
- 1.18. CO Incubator (Wieens WCI-40)
- 1.19. Biosafety Cabinet Class II

List of Figures

Figure 1: Rotary Evaporator (with Water Aspirator)

Figure 2: TDS Meter

Figure 3: Texture Profile Analyzer

Figure 4: Milkoscan

Figure 5: PCR Machine

Figure 6: Hematology Analyzer

Figure 7: Semi-Automated Chemistry Analyzer (Spectrophotometer)

Figure 8: UV-VIS spectrophotometer

Figure 9: Microplate Reader (96-well plate reader)

Figure 10: AMP Piccos II Chemistry Analyzer

Figure 11: Digital Viscometer

Figure 12: Growth Chamber

Figure 13: UV Spectrophotometer

Figure 14: Gradient5 PCR MiniAmp

Figure 15: Inverted Microscope

Figure 16: Real-Time PCR System

Figure 17: CO Incubator

Figure 18: Biosafety Cabinet Class II

About ORIC

The Office of Research, Innovation, and Commercialization (ORIC) at the University of Central Punjab (UCP) serves as the driving force behind the university's research and innovation ecosystem. Guided by a clear vision of becoming a catalyst for transformative research and innovation, ORIC positions UCP as a hub where groundbreaking ideas not only advance academic knowledge but also shape industries and empower entrepreneurs with real-world impact.

In alignment with the Higher Education Commission's mandate, ORIC provides strategic, organizational, and technical support for all research activities at UCP. It ensures that faculty and students are equipped to pursue high-quality research, generate intellectual property, and translate discoveries into solutions that benefit both society and the economy. By fostering strategic partnerships and supporting sustainable commercialization, ORIC reinforces UCP's mission of building a future-ready ecosystem where ideas evolve into enterprises.

Anchored in the UCP Five-Year Strategic Plan (2025–2029), ORIC's efforts are centered on six key areas: Research Excellence, Commercialization and Intellectual Property, Industry–Academia Linkages, Entrepreneurship and Startups, Infrastructure and Core Facilities, and Internationalization. Together, these pillars provide a structured pathway for turning knowledge into impact, reinforcing UCP's role as a leader in research-driven societal development.

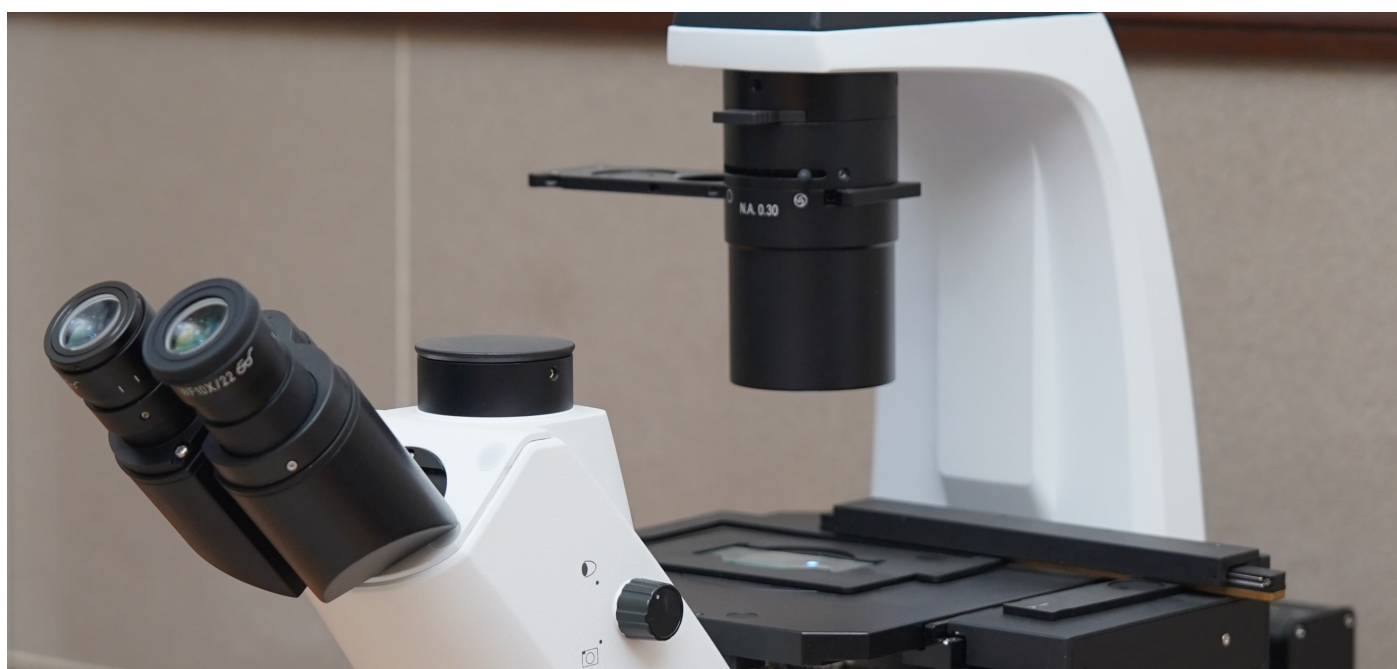
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Rate List of Commercialized Equipment's (ORIC)

Price of Tests

Faculty of Science & Technology (FOST)

Departments	Sr. #	Name	Specifications	Quantity	Cost/Price
Food Science & Technology	1.	Rotary Evaporator(with Water Aspirator)	Standard	50 ml	1000
	2.	TDS Meter	Standard	10-15 ml	300
	3.	Texture Profile Analysis	Standard	Per Sample	300
	4.	Milkoscan	Standard	10-15 ml	200
Microbiology	5.	PCR Machine (Conventional)	Standard	Per Reaction	1500 - 2500
	6.	Hematology Analyzer	Standard	Per Reaction	800 - 1000
	7.	Antimicrobial Susceptibility Testing	Standard	Per Reaction	1200 - 1500
	8.	RFT - Chemistry Analyzer (Semi-Automatic)	Standard	Per Reaction	1000
	9.	LFT - Chemistry Analyzer (Semi-Automatic)	Standard	Per Reaction	1200
	10.	Uric Acid - Chemistry Analyzer (Semi-Automatic)	Standard	Per Reaction	600
	11.	Blood Sugar - Chemistry Analyzer (Semi-Automatic)	Standard	Per Reaction	600
	12.	UV-Vis Spectrophotometer	Standard	Per Reaction	200
Basic & Applied Chemistry	13.	Elisa Plate Reader (96 Well Plate)	Standard	Per Reaction	300
	14.	AMP Piccos II Chemistry Analyzer	Standard	Per Reaction	200
	15.	Digital Viscometer	Standard	Per Reaction	200
	16.	Growth chamber	Standard	Per Reaction	500
Biotechnology	17.	UV Spectrophotometer	Standard	Per Reaction	200
	18.	Gradient5 PCR MiniAmp	Standard	Per Reaction	300 without Reagents
	19.	Inverted Microscope	Standard	Per Reaction	300
	20.	Real-Time PCR System	Standard	Depends on sample/ Procedure	Depends on sample Procedure
	21.	Co2 incubator wieens wci-40	Standard	Each Sample	200/Hour
	22.	Biosafety Cabinet Class 11	Standard	Per User	500/Hour



1. Faculty of Science & Technology (FOST)

The Faculty of Science & Technology (FOST) at the University of Central Punjab is a vibrant hub of innovation, creativity, and academic excellence. Under the leadership of Dr. Hafiza Rizwana Kausar, Dean of the Faculty, FOST brings together highly qualified PhD faculty members who are dedicated to teaching, research, and preparing the next generation of scientists and leaders.

FOST is comprised of seven departments: Mathematics, Physics, Basic & Applied Chemistry, Zoology, Microbiology, Biotechnology, and Food and Nutritional Sciences. These departments offer a comprehensive range of undergraduate and postgraduate programs that combine rigorous coursework with hands-on laboratory training, ensuring that students gain both a solid theoretical foundation and the practical expertise necessary for success in their chosen fields.

The faculty fosters a strong culture of research and collaboration, engaging with leading universities and institutions worldwide. These partnerships give scholars and students opportunities to participate in joint research, contribute to impactful publications, and learn from visiting experts who share their knowledge and experience at UCP.

In addition to research excellence, FOST is deeply committed to cultivating innovation and supporting student-led startups. Through its academic programs, research culture, and industry linkages, the faculty provides an ecosystem where ideas can be transformed into solutions, encouraging entrepreneurship alongside scientific exploration.

Interdisciplinary research is strongly promoted within the mathematical, physical, life, and environmental sciences, enabling students to approach modern challenges from multiple perspectives. With access to state-of-the-art laboratories, a supportive learning environment, scholarships, and a fee structure designed to ensure accessibility, FOST empowers students to pursue excellence while contributing meaningfully to society.

As it looks to the future, the Faculty of Science & Technology continues to embrace innovation, research, and entrepreneurship, preparing students not only to excel in science and technology but also to become leaders and changemakers in the regional and global community.

1.1. Rotary Evaporator (with Water Aspirator)

The Rotary Evaporator system is used for gentle removal of solvents from samples by evaporation. It includes a vacuum pump and a cooling system with a 5L reservoir volume. This setup is ideal for concentrating and purifying heat-sensitive materials. The rotary evaporator operates under reduced pressure, allowing for lower boiling points and preventing decomposition of temperature-sensitive compounds.

Model Information

- Rotary Evaporator Model: DLSB-5/10
- Vacuum Pump Model: SHZ-DIII

Technical Specifications

- Reservoir Volume: 5 L
- No-load Minimum Temperature: -10 °C
- Circulating Pump Power: 100

Applications

- Solvent removal
- Sample concentration
- Essential oil extraction
- Recovery of volatile solvents
- Purification of chemical compounds

Locations

- Faculty: FOST
- Department: Food Science and Technology
- Room: 401, Takhleeq
- Laboratory: FST Lab-2



Rotary Evaporator (with Water Aspirator)

1.2. TDS Meter

The TDS Meter is designed for accurate determination of total dissolved solids (TDS), conductivity, and temperature in aqueous solutions. It is widely used in water quality analysis, ensuring proper monitoring of mineral content in food and beverage industries.

Model Information

- Model: DDS-307A

Technical Specifications

- Conductivity: 0.00 $\mu\text{S}/\text{cm}$ to 100 mS/cm
- TDS: 0.000 to 1999 mg/L
- Temperature Range: 0.0 to 99.9 $^{\circ}\text{C}$

Applications

- Water quality testing
- Monitoring mineral content in food products
- Evaluation of process water
- Beverage and dairy industry testing

Locations

- Faculty: FOST
- Department: Food Science and Technology
- Room: 401, Takhleeq
- Laboratory: FST Lab-2



TDS Meter

1.3. Texture Profile Analysis

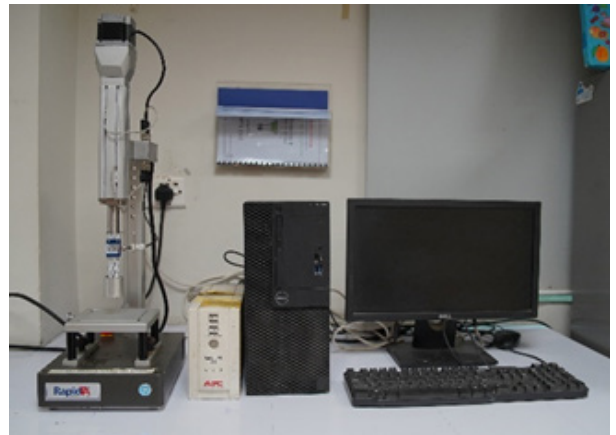
The Texture Profile Analyzer is designed to evaluate the mechanical and physical properties of food and other materials through compression and penetration tests. It provides parameters like hardness, cohesiveness, springiness, chewiness, gumminess, and resilience, offering insights into product texture and quality control.

Model Information

- Serial Number: G230714024

Technical Specifications

- Force Range: 0.5 to 100 kgf
- Resolution: 1920 × 1080
- Distance Resolution: 0.01 mm
- Distance Accuracy: 0.1%



Texture Profile Analyzer

Applications

- Evaluation of food texture (bakery, meat, gels)
- Quality control in food production
- Research and development of new formulations
- Sensory texture correlation studies

Locations

- Faculty: FOST
- Department: Food Science and Technology
- Room: 401, Takhleeq
- Laboratory: FST Lab-2

1.4. Milkoscan

The Milkoscan is a high-precision analytical instrument used to measure key compositional parameters of milk and dairy products, including fat, protein, lactose, solids-not-fat (SNF), and water content. It provides rapid, reliable analysis and is widely used for quality control in dairy processing.

Model Information

- Model: I-17-4420

Technical Specifications

- Calibration Range:
- Up to 50% fat
- Up to 7% protein
- Up to 7% lactose
- Up to 55% total solids



Milkoscan

Applications

- Quality control in milk and dairy production
- Dairy composition analysis
- Standardization in dairy processing
- Adulteration detection

Location

- Faculty: FOST
- Department: Food Science and Technology
- Room: 401, Takhleeq
- Laboratory: FST Lab-2

1.5. PCR Machine

The Polymerase Chain Reaction (PCR) system is a highly sensitive and versatile molecular biology instrument used for the amplification and detection of nucleic acids. It is widely applied in infectious disease diagnostics, genetic research, and mutation analysis.

Model Information

- Company: Kyrattec
- Model: SC300G

Technical Specifications

Block Format: 96 wells

- Temperature Range: 4 °C to 100 °C
- Ramp Rate: 3–5 °C/sec
- Detection Channels (in qPCR): 4–6



PCR Machine

Applications

- Infectious disease diagnostics (MTB, COVID-19, HBV DNA)
- Genetic mutation analysis

Locations

- Faculty: FOST
- Department: Microbiology
- Room: B313, Building B, 3rd Floor
- Laboratory: Microbiology Research Lab

1.6. Hematology Analyzer

The Hematology Analyzer is an advanced clinical instrument designed to perform complete blood counts (CBC) with high accuracy and efficiency. It provides detailed blood analysis to support diagnosis, disease monitoring, and treatment evaluation.

Model Information

- Company: Mindray
- Model: BC-10

Technical Specifications

- CBC + 3-DIFF, 20 parameters + 3 histograms
- Throughput: up to 30 samples per hour
- 8.4-inch TFT touch screen
- Requires only three reagents
- Open vial sampling
- Large storage capacity: up to 50,000 samples
- Equipped with original QC, calibrators, and reagents
- Follows CLSI guidelines
- Supports use with Mueller Hinton agar plates and standardized antibiotic discs



Hematology Analyzer

Applications

- Complete Blood Count (CBC): Hb, Hct, RBC, WBC, PLT, MCV, MCH, MCHC, etc.
- Diagnosis of anemia types (iron deficiency, megaloblastic, etc.) and monitoring treatment response
- Detection of bacterial, viral, or parasitic infections through WBC count and differential analysis
- Monitoring the impact of cancer treatment on blood cell production

Locations

- Faculty: FOST
- Department: Microbiology
- Room: B313, Building B, 3rd Floor
- Laboratory: Microbiology Research Lab

1.7. Antimicrobial Susceptibility Testing

The Antimicrobial Susceptibility Testing (AST) using the disk diffusion method is a standardized laboratory technique employed to evaluate the sensitivity or resistance of bacteria to various antibiotics. This method follows internationally accepted guidelines to ensure reliable and reproducible results. It is essential in clinical diagnostics and microbiological research, particularly for monitoring resistant strains.

Standards and Requirements

- Follows CLSI guidelines
- Utilizes Mueller Hinton agar plates
- Employs standardized antibiotic discs

Applications

- Determination of bacterial sensitivity and resistance to antibiotics
- Detection of extended-spectrum beta-lactamase (ESBL) producing strains
- Detection of methicillin-resistant *Staphylococcus aureus* (MRSA)
- Identification of multidrug-resistant (MDR) bacterial strains

Locations

- Faculty: FOST
- Department: Microbiology
- Room: B313, Building B, 3rd Floor
- Laboratory: Microbiology Research Lab

1.8. Semi-Automated Chemistry Analyzer (Spectrophotometer)

The Semi-Automated Chemistry Analyzer is a versatile spectrophotometric instrument used for the measurement of biochemical analytes in clinical and research laboratories. It provides rapid, accurate, and cost-effective analysis of a wide range of biochemical parameters, making it valuable for disease diagnosis and health monitoring.

Model Information

- Company: Biobase
- Model: Biobase Silber



Semi-Automated Chemistry Analyzer (Spectrophotometer)

Technical Specifications

- 7.0-inch LCD touch screen with user-friendly graphical interface
- Large memory capacity: stores up to 300 test items and 20,000 test results
- Built-in thermal printer for immediate result printing with abnormal result flagging
- Incubator with intelligent temperature control: Room Temperature, 25.0 °C, 30.0 °C, 37.0 °C

Applications

- Measurement of analytes such as glucose, urea, creatinine, cholesterol, liver enzymes (ALT, AST), and electrolytes (Na⁺, K⁺, Cl⁻)
- Liver and kidney function tests through enzyme and metabolite analysis
- Lipid profile analysis including total cholesterol, HDL, LDL, and triglycerides for cardiovascular risk assessment
- Measurement of fasting blood glucose and HbA1c (if equipped with specific reagents)
- Detection of tissue damage and organ-specific diseases through enzyme level analysis

Locations

- Faculty: FOST
- Department: Microbiology
- Room: B313, Building B, 3rd Floor
- Laboratory: Microbiology Research Lab

1.9. UV-Vis Spectrophotometer

The Dynamica HALO DB-20 is a compact UV/VIS spectrophotometer offering a spectral resolution of 1 nm. It supports multiple measurement modes-including photometric, spectrum, quantification, kinetics, and time-scan-allowing for versatile use across a wide range of analytical applications.

Model Information

- Company: Dynamica
- Model: HALO DB-20

Technical Specifications

- Wavelength Range: 190 – 1100 nm
- Spectral Bandwidth: 1 nm
- Photometric Range:

Applications

- Measurement of absorbance and transmittance
- Characterization of nanomaterials
- Study of reaction kinetics
- Quantitative and qualitative analysis
- Spectrum analysis
- Impurity detection and identification
- Structural analysis of organic compounds

Applications

- Faculty: FOST
- Department: Chemistry
- Room: BCL-202, Building B, 2nd Floor
- Laboratory: Biochemistry Research Lab



UV-VIS spectrophotometer
o Absorbance: -3 to 3 Abs
o Transmittance: 0% to 300%

1.10. Microplate Reader (UV-Vis Spectrophotometer Based)

The BioTek Elx 800 is a reliable microplate reader designed for high-performance absorbance measurements in 96-well plates. It is filter-based and optimized for endpoint reading, making it an essential tool in immunoassays, clinical diagnostics, pharmaceutical testing, and research applications. Its versatility and speed make it suitable for both routine analysis and advanced research workflows.

Model Information

- Company: BioTek
- Model: Elx 800



Microplate Reader (96-well plate reader)

Technical Specifications

- Plate Type: 96-well microplates
- Read Method: Absorbance (endpoint)
- Wavelength Selection: Filter-based
- Standard Filters: 405, 450, 490, 630 nm
- Reading Speed: ≤ 15 seconds for a full 96-well plate
- Shaking: Variable speed and duration (optional feature)
- Interface: Standalone or PC-controlled (via Gen5 software)
- Data Storage: On-board memory for protocols and results

Applications

- ELISA assays for detecting antigens, antibodies, hormones, and proteins
- Clinical diagnostics for disease marker detection (HIV, Hepatitis, COVID-19)
- Pharmaceutical testing for drug screening and quality control
- Biotechnology research for protein and enzyme quantification
- Food safety testing to detect contaminants, allergens, and toxins
- Veterinary diagnostics for animal disease detection
- Academic and teaching laboratories for immunoassay training

Location

- Faculty: FOST
- Department: Chemistry
- Room: BCL-202, Building B, 2nd Floor
- Laboratory: Biochemistry Research Lab

1.11. AMP Piccos II Chemistry Analyzer

The AMP Piccos II Chemistry Analyzer is a semi-automated clinical chemistry system designed for simple, efficient, and accurate performance of photometric clinical chemistry tests. Its versatility and flexibility allow it to function as a multi-purpose clinical chemistry workstation in small laboratories, a dedicated analyzer for less frequently performed analytes, or a reliable back-up analyzer available for continuous operation.

Model Information

- Company: AMP
- Model: Piccos II

Technical Specifications

- Equipped with 7 standard and 1 optional wavelength
- Pre-programmed protocols for all routine parameters
- Simple adjustment according to individual requirements
- Flow cell temperature control at 25 °C, 30 °C, or 37 °C
- Graphic presentation of reaction and calibration curves
- Results can be reported in both parameter-oriented and patient-oriented formats



AMP Piccos II Chemistry Analyzer

Applications

- Routine blood and urine chemistry tests
- Measurement of glucose, urea, creatinine, cholesterol, and other analytes
- Diagnostic use in hospitals and clinical laboratories
- Veterinary biochemical testing
- Biochemical research in academic and applied laboratories

Location

- Faculty: FOST
- Department: Chemistry
- Room: BCL-202, Building B, 2nd Floor
- Laboratory: Biochemistry Research Lab

1.12. Digital Viscometer

The Digital Viscometer is an advanced instrument that employs 16-bit high performance single chip micro-processing technology. Unlike older gear-based speed regulation methods, it uses a stepping motor to ensure stable operation through a programmed setup. A torsion sensor drives the rotor at a constant speed, and when the rotor encounters viscous resistance in the liquid, the system processes the data to display viscosity on screen. The instrument is designed for easy operation, precise measurement, steady rotation, strong anti-interference capacity, and broad voltage adaptability. It also shows the percentage rate of the measured value relative to the entire measuring range, which helps users select the appropriate rotor and speed for accurate analysis.

Model Information

- Model: NDJ-9S

Technical Specifications

- Measurement Range: 10 mPa·S to 6,000,000 mPa·S (1 mPa·S = 1 cP)
- Measurement Accuracy: $\pm 3\%$



Digital Viscometer

Applications

- Measurement of viscosity in pharmaceutical liquids (syrups, suspensions)
- Analysis of drug formulation stability and flow behavior
- Consistency testing in food products (honey, sauces, dairy items)
- Monitoring texture in processed foods (ketchup, mayonnaise)
- Viscosity measurement in cosmetics (lotions, creams, gels)
- Ensuring uniform application of paints and coatings
- Analysis of industrial lubricants, oils, and fuels
- Research studies on novel fluid properties
- Quality control for verifying production batch uniformity

Location

- Faculty: FOST
- Department: Chemistry
- Room: BCL-202, Building B, 2nd Floor
- Laboratory: Biochemistry Research Lab

1.13. Growth Chamber

The Growth Chamber is a specialized device designed to cultivate plants or microorganisms under controlled environmental conditions. It allows precise regulation of temperature, humidity, and light, which makes it suitable for plant growth experiments, seed germination, and studies on environmental stress. With advanced digital controls, uniform air circulation, and safety features, the chamber ensures stable and reproducible experimental conditions for research and applied studies.

Company Information

- Company: IRMECO

Technical Specifications

- Temperature Range: 5°C to 60°C (adjustable)
- Humidity Control: 40% to 95% (adjustable)
- Light Control: Adjustable intensity and photoperiod
- Air Circulation: Even distribution via fan or ventilation
- Display Panel: Digital monitoring and control system
- Safety Features: Over-temperature protection, alarms

Applications

- Plant growth and development studies
- Cultivation of microorganisms
- Seed germination and tissue culture research
- Environmental stress testing on plants
- Long-term plant sample storage
- Plant breeding and genetic analysis
- Climate change and crop response research

Location

- Faculty: FOST
- Department: Chemistry
- Room: BCL-202, Building B, 2nd Floor
- Laboratory: Biochemistry Research Lab



Growth Chamber

1.14. UV Spectrophotometer

The Inno-DB6500 Spectrophotometer is a state-of-the-art analytical instrument designed for precise measurement of light absorbance and transmittance across a wide range of wavelengths. Equipped with advanced optical components and user-friendly software, this spectrophotometer is ideal for laboratories, research facilities, and industrial applications.

Model Information

- Model: Inno-DB6500



UV Spectrophotometer

Technical Specifications

- Wavelength Range: 190 - 1100 nm
- Spectral Bandwidth: 1 nm, 2 nm, 4 nm, and 5 nm adjustable
- Photometric Accuracy: ± 0.002 Abs (0-0.5 Abs)
- User Interface: 7-inch touchscreen

Applications

- Quantification of nucleic acids (DNA/RNA) using A260/A280 ratios
- Protein concentration determination using Bradford, Lowry, or BCA assays
- Enzyme kinetics and reaction rate analysis
- Quantitative analysis of chemical compounds and solutions

Location

- Faculty: FOST
- Department: Biotechnology
- Room: B301, Building B, 3rd Floor
- Laboratory: Biotechnology Research Lab

1.15. Gradient5 PCR MiniAmp

The Gradient5 PCR MiniAmp Plus Thermal Cycler is a compact, high-performance thermal cycler designed for efficient and precise PCR amplification. It features advanced gradient capabilities, intuitive programming, and robust temperature control, making it an ideal choice for routine PCR, genotyping, and DNA amplification in research and clinical laboratories

Model Information

- Model: MiniAmp Plus Thermal Cycler

Technical Specifications

- Gradient Capability: Programmable gradient range of 30°C – 100°C
- Temperature Accuracy: $\pm 0.25^\circ\text{C}$
- User Interface: 5-inch LCD touchscreen with intuitive navigation and pre-installed protocols
- Power Supply: AC 110-240V, 50/60 Hz



Gradient5 PCR MiniAmp

Applications

- DNA/RNA amplification and cloning
- Mutation analysis and SNP genotyping
- Pathogen detection and viral load quantification
- Environmental DNA analysis and microbial testing
- Genetic fingerprinting and population studies

Location

- Faculty: FOST
- Department: Biotechnology
- Room: B301, Building B, 3rd Floor
- Laboratory: Biotechnology Research Lab

1.16. Inverted Microscope

An Inverted Microscope is an essential instrument designed for the observation of living cells, tissues, and other biological samples in culture vessels. It is particularly suitable for educational use in biotechnology labs, allowing students to conduct cellular research with clarity and precision.



Inverted Microscope

Model Information

- Model: Inno-DB6500

Technical Specifications

- Optical System: Brightfield, phase contrast, and fluorescence imaging
- Objective Lenses: 4x, 10x, 20x, 40x, 60x magnification options
- Stage Configuration: Large adjustable stage with multi-well plate holders for live cell observation
- Illumination: LED or halogen light source with adjustable intensity
- Focus Adjustment: Coarse and fine focus knobs for precise focusing

Applications

- Cell Culture Analysis: Monitoring of live cell cultures in petri dishes, multi-well plates, or flasks
- Cell Division and Morphology: Observation of mitosis, apoptosis, and cellular morphology in real time
- Tissue Analysis: Examination of tissue sections for histology and pathology studies

Location

- Faculty: FOST
- Department: Biotechnology
- Room: B301, Building B, 3rd Floor
- Laboratory: Biotechnology Research Lab

1.17. Real-Time PCR System

The Applied Biosystems Real-Time PCR System (275006327) is a reliable and user-friendly thermal cycler designed for quantitative PCR analysis. Ideal for educational institutions and biotechnology labs, this system facilitates accurate detection and quantification of nucleic acids, enabling students to gain hands-on experience with cutting-edge molecular biology techniques.

Model Information

- Model: Real-Time PCR System 275006327



Real-Time PCR System

Technical Specifications

- Detection Format: 96-well plate or 8-tube strips for high-throughput analysis
- Wavelength Range: 450 nm – 700 nm, compatible with common fluorophores
- Temperature Range: 4°C to 100°C with ramp rates up to 4.0°C/sec
- Data Analysis: Real-time data collection with integrated software for quantification and melt curve analysis
- User Interface: 7-inch color touchscreen for easy programming

Applications

- Gene Expression Analysis and Quantification
- DNA/RNA Amplification for Research and Diagnostics
- Pathogen Detection and Viral Load Assessment
- SNP Genotyping and Mutation Analysis
- Environmental Sample Testing for Microbial Contamination

Location

- Faculty: FOST
- Department: Biotechnology
- Room: B301, Building B, 3rd Floor
- Laboratory: Biotechnology Research Lab

1.18. CO₂ Incubator (Wieens WCI-40)

The Wieens WCI-40 CO₂ Incubator is a reliable and user-friendly cell culture incubator designed for maintaining optimal growth conditions for biological samples. Ideal for educational institutions and biotechnology labs, it enables students to conduct experiments involving cell culture, tissue engineering, and microbiological studies under controlled conditions.

Model Information

- Model: Wieens WCI-40 CO₂ Incubator

Technical Specifications

- Capacity: 40 liters, suitable for small-scale academic and research applications
- Temperature Range: Ambient +5°C to 60°C, adjustable in 0.1°C increments
- CO₂ Range: 0% to 20% with precise digital control
- Humidity Control: Humidification system with adjustable water reservoir for up to 95% RH



CO₂ Incubator

Applications

- Culturing Mammalian and Bacterial Cells for Genetic Research
- Stem Cell Culture and Differentiation Studies
- Tissue Engineering and Organoid Development
- Microbial Growth Analysis and Pathogen Studies
- Drug Testing and Cytotoxicity Assays

Location

- Faculty: FOST
- Department: Biotechnology
- Room: B301, Building B, 3rd Floor
- Laboratory: Biotechnology Research Lab

1.19. Biosafety Cabinet Class II

The Biobase Class II Biosafety Cabinet is designed to provide a sterile and safe working environment for handling biological samples, cell cultures, and hazardous materials. Ideal for biotechnology labs in academic settings, it ensures protection for both users and samples, allowing students to safely perform experiments involving pathogenic microorganisms and potentially infectious agents.

Model Information

- Model: Biobase Biosafety Cabinet - Class II

Technical Specifications

- Protection Levels: Personnel, product, and environmental protection in accordance with Class II standards
- Airflow System: Vertical laminar airflow with HEPA filters to maintain a contamination-free workspace
- Filtration Efficiency: $\geq 99.995\%$ at $0.3 \mu\text{m}$ for HEPA filter, ensuring optimal air quality
- UV Sterilization: Programmable UV light for decontamination before and after use



Biosafety Cabinet Class II

Applications

- Safe Handling of Bacterial, Viral, and Fungal Cultures
- DNA/RNA Extraction and Amplification Workflows
- Cell Culture and Tissue Engineering Experiments
- Preparation of Samples for PCR and qPCR Analysis
- Research Involving Genetically Modified Organisms (GMOs)

Location

- Faculty: FOST
- Department: Biotechnology
- Room: B301, Building B, 3rd Floor
- Laboratory: Biotechnology Research Lab



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