


List of Research Equipments available in Food Technology

Department Name: FOOD TECHNOLOGY
Equipment Name: WATER ACTIVITY METER
Specifications: Accuracy - ± 0.003 aw Sensor Type- Chilled-mirror dewpoint sensor, Infrared temperature sensor Universal Power- 110 V to 220 V AC, 50/60 Hz
Functions: Water Activity (aw) Meters measure the unbound water vapor pressures to determine microbial spoilage, chemical and physical stability.
Photograph: 

Department Name: FOOD TECHNOLOGY

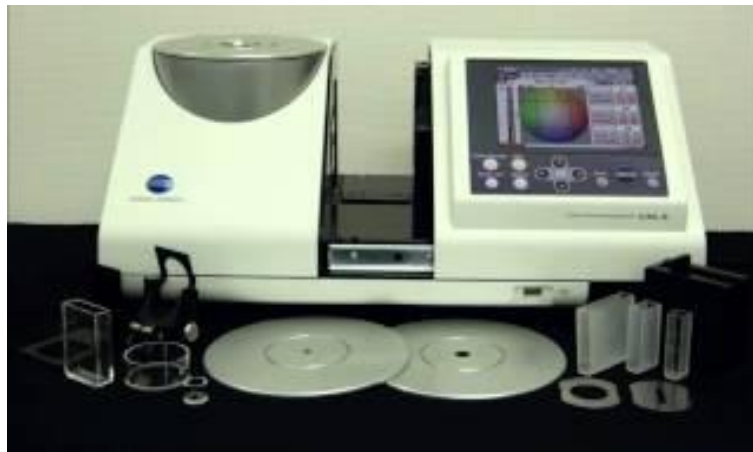
Equipment Name: COLOUR SPECTROPHOTOMETER

Specifications:

Wavelength range	360nm to 740nm
Measurement range	0 to 175 % (Reflectance or transmittance); Output/display resolution: 0.01%
Light source	Pulsed xenon lamp
Measurement time	Approx. 1 s (to data display/output); Minimum measurement interval: Approx. 3 s

Functions: Used for measuring colour in food products and to evaluate the efficiency of processes in obtaining or maintaining the desired product colour in the research perspective.

Photograph:



Department Name: FOOD TECHNOLOGY

Equipment Name: TEXTURE PROFILE ANALYSER

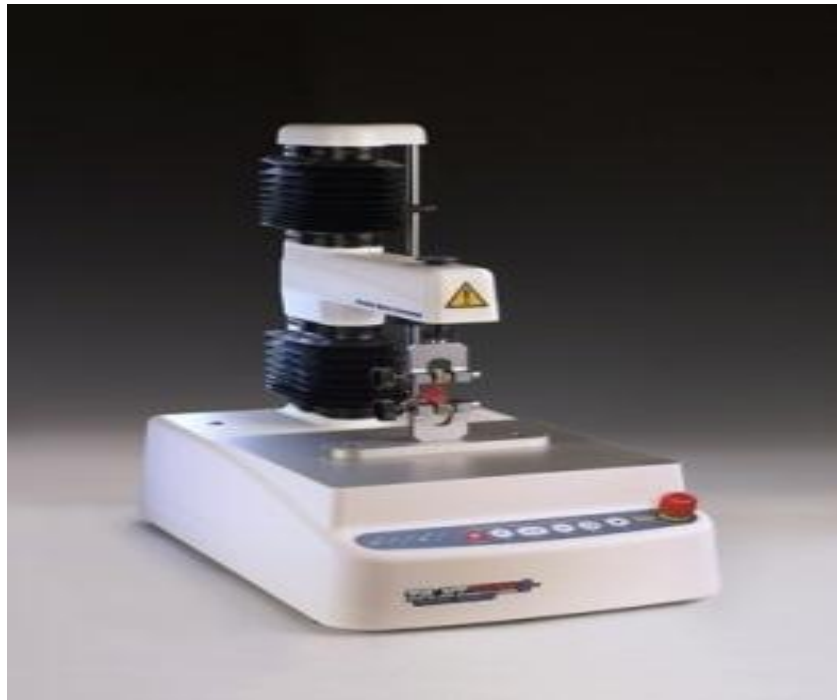
Specifications:

Load cell: 50kg

Probes: Back Extrusion rig, Blade set, 5mm compression platen, 2mm needle probe, 5mm spherical probe, 3 point bend rig, forward extrusion

Functions: Texture Profile Analysis is a popular double compression test for determining the textural properties of foods

Photograph:



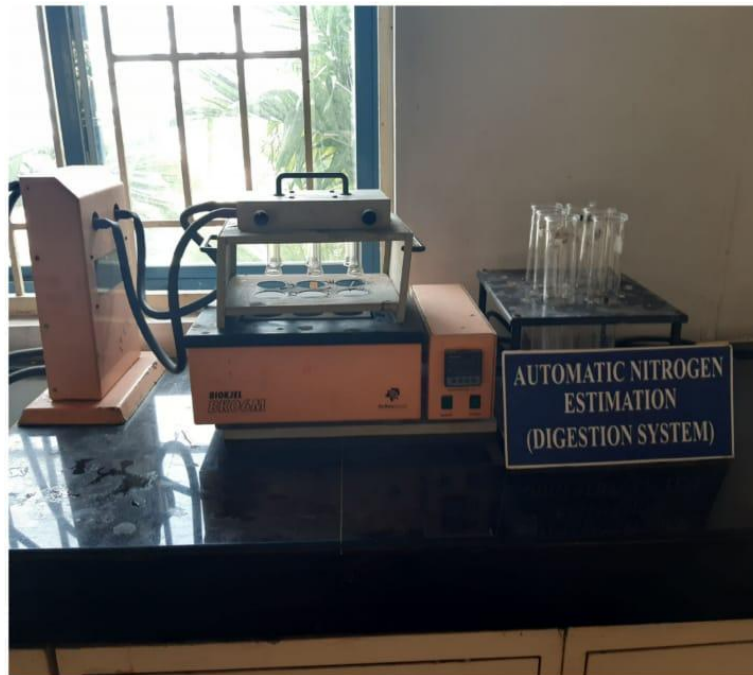
Department Name: Food Technology

Equipment Name: Automatic Nitrogen estimation system (Digestion system and distillation system)

Specifications: BIODIST-A Automatic Block Digestors with six sample system and BIODIST-A Distillation system incorporates feather touch membrane keys with built-in safety features

Functions: Nitrogen and Protein estimation of various biological materials

Photograph:



Department Name: FOOD TECHNOLOGY

Equipment Name: LAB SCALE SPRAY DRIER

Specifications: 1000ml of water evaporation/hr at max. drying air flow rate in insulated condition

Functions: It is used to spray dry the food material to remove (or decrease to a feasible level) moisture.

Photograph:



Department Name: FOOD TECHNOLOGY

Equipment Name: MILK HOMOGENIZER

Specifications: capacity: 50 ltr/hr, max. pressure: 175 kg/cm²

Functions: It is used to homogenize raw milk to produce homogenized milk.

Photograph:



Department Name: FOOD TECHNOLOGY

Equipment Name: Freeze dryer

Specifications: - 4Kg, 6Kg & 12Kg Models, Temperature-50°C, Vacuum Degree 15Pa, Larger single color LCD display, Temperature & Vacuum trend Graph

Functions: Production of Food powders from heat sensitive materials

Photograph:

Compact & Multitask Lyophilizer



Penguin Classic Plus



Vacuum Pump

Department Name: FOOD TECHNOLOGY

Equipment Name: Vacuum packaging

Specifications: -

Functions: To study the method of packaging Characterization of packaging materials

Photograph:



Department Name: FOOD TECHNOLOGY

Equipment Name: Tray dryer

Specifications: -

Functions: To Study the drying kinetics of food materials

Photograph:



FOOD PROCESS ENGINEERING LABORATORY

Department Name: FOOD TECHNOLOGY

Equipment Name: MICROWAVE DRIER ASSISTED WITH AIR AND VACUUM

Specifications: Power Control Range: 0.2 to 0.8 Kw, Operating Frequency: 2450MHz.

Functions: It is used to dry the food material by microwaves to remove (or decrease to a feasible level) moisture.

Photograph:



Department Name: FOOD TECHNOLOGY

Equipment Name: TRAY DRIER ASSISTED WITH INFRARED AND VACUUM

Specifications: I/P Power: 5 KVA, Frequency: 50 Hz, Voltage: 230 Volts, Hot air flow rate: 10-50 CFM.

Functions: It is used to dry the food material under specific conditions by using infrared component.

Photograph:



Department Name: FOOD TECHNOLOGY

Equipment Name: HUMIDIFYING CHAMBER

Specifications: Capacity: Max. Temp. :15°C, RH: 35-95% (20-60 °C), Chamber size:455 × 455 × 710 mm

Functions: A humidity chamber is used for product testing at different setpoints, including maintaining controlled humidity and temperature conditions.

Photograph:



Department Name: Food Technology

Equipment Name: Fermenter

Specifications: 7 litres

Functions: To conduct various fermentation studies

Photograph:



Department Name: Food Technology

Equipment Name: UV – Visible Spectrometer

Specifications: Extremely versatile with full functionality from 190 to 1100 nm. Control as a stand-alone unit or through a PC with included UV Probe software.

Functions: It is used to analyze Anti-oxidants, Pigments, Artificial sweeteners, Flavonoids, Poly Phenols and Proximate Composition

Photograph:



Department Name: Food Technology

Equipment Name: High Performance Liquid Chromatography (HPLC)

Specifications: Having a refractive index range between 1 to 1.75 RIU and the response is 005 to 10 sec, 10 steps.

Functions: It is used to analyze Curcumin, Capsaicin and Carbohydrates like Glucose, Fructose, Sucrose and Lactose.

Photograph:

