

FTIR IRSpirit-X LABORATORY – ADVANCED MATERIAL CHARACTERIZATION HUB

Overview

The **FTIR IRSpirit-X** is a compact and powerful **Fourier Transform Infrared Spectrophotometer** designed for accurate, non-destructive chemical analysis. Ideal for research and education, this bench top instrument is widely used in **materials science**, **chemistry**, **pharmaceuticals**, **polymers**, and **nanotechnology**.

It allows students and researchers to identify organic and inorganic compounds, study molecular bonding, and characterize materials through **infrared absorption spectra**.



Key Features of FTIR IRSpirit-X

- **High-Sensitivity DLATGS Detector** – Delivers precise, low-noise measurements for even trace-level samples.
- **Compact Footprint** – Space-saving design perfect for academic and research labs.
- **Versatile Sample Compatibility** – Supports both solid and liquid samples using optional accessories.
- **Quick Startup & Software** – With LabSolutions IR software, data acquisition and analysis are user-friendly and efficient.
- **ATR Accessory (Attenuated Total Reflectance)** – Enables direct sample analysis without complex preparation.

Applications in Our Lab

- **Polymer identification and degradation studies**
- **Pharmaceutical quality control**
- **Nonmaterial surface chemistry analysis**
- **Biochemical research**
- **Contaminant detection in environmental samples**

User Interface & Software

The LabSolutions IR software offers an intuitive interface for:

- Spectrum comparison
- Peak identification
- Library matching
- Multi-point calibration
- Automated reporting

Student & Researcher Access

Students in our **Material Science and Nanotechnology programs** utilize this lab for coursework, dissertations, and live research projects. Our lab encourages interdisciplinary collaborations and industry-linked research.

FTIR Sample Testing – Online Payment and Procedure

The following steps must be followed to avail the FTIR (IRSpirit-X) services through the Central Instrumentation Facility at AKS University:

Step 1: Fill the Requisition Form (Online)

All users must first fill out the FTIR Requisition Form.

The Google Form link will be made available under the “Research and Testing Facility” section of the university website.

Step 2: Access Form through University Portal

The Google Form will be accessible via the official university portal.

Navigate to: Research and Testing Facility → FTIR IRSpirit-X Services

Step 3: Temporary ID for External Users

Outsiders (Non-university individuals) will be issued a Temporary User ID after form submission to track their request and payment.

Step 4: Payment Submission

After filling the form, proceed with online payment through the university's Fee Payment Portal.

Save or Screenshot the payment receipt immediately.

Step 5: Submit Payment Proof

Visit the University Fees Corner (online or offline) and show your transaction receipt.

Collect the official university payment receipt.

Step 6: Submit Receipt to FTIR Lab In-charge

Submit the official receipt to the FTIR Lab In-charge to initiate your sample testing.

Your sample will be logged and scheduled.

Step 7: Receive Reports

Analysis reports and results will be delivered on the pre-allocated date shared by the lab in-charge.

FTIR Testing Charges

User Category	Fees
Research Scholars	₹100/sample
Industrial/Company Users	₹150/sample

Note: Sample testing service is available for a limited time only.

For any help: cif@aksuniversity.com or 9997153541