

High Pressure Liquid Chromatograph (HPLC)

Photo of Instrument:



Instrument Name	High Pressure Liquid Chromatograph (HPLC)
Instrument Model & Serial No.	
Instrument Make	SHIMADZU Prominence-i, LC2030
Category of Instrument	Analytical laboratory equipment
Description of Instrument	High pressure liquid chromatography (HPLC) equipment used for separating, identifying, and quantifying components in a mixture.
Instrument Technical Description and Major Specifications (This Specifications Limited to Major 5)	<ol style="list-style-type: none"> 1. Pump: Dual-plunger parallel-flow solvent delivery pump with a maximum pressure of up to 50 MPa (7250 psi) and a flow rate range of 0.001 to 10.000 mL/min. 2. Injector: High-sensitivity and high-precision autosampler with a sample injection volume range of 0.1 to 100 μL and compatibility with various injection modes such as full loop, partial loop, and micro-volume injection. 3. Column oven: Temperature-controlled column oven with a range of 4°C below ambient temperature to 85°C. 4. Detector: UV-VIS detector with a wavelength range of 190 to 700 nm, offering high sensitivity and a wide dynamic range.

Department of Chemical Engineering, NIT Calicut

	5. Compatibility: The system is compatible with various column types and dimensions, allowing flexibility in method development and optimization.
Application of Instrument (Limited to Major 4 or 5)	Pharmaceuticals Biotechnology Food and Beverage Environmental Analysis
Type of Sample Required for Analysis/Testing (Quantity, Pre-Preparation, State etc.) Guidelines for Sample Submission – User Instructions	Type of sample and its preparation method will depend on the analytical requirements and the nature of the compounds being analysed. Sample preparation techniques such as filtration, dilution, extraction may be required to ensure compatibility with the HPLC system and achieve accurate results.
Types of Analysis/Testing	<ol style="list-style-type: none"> 1. Quantitative analysis 2. Qualitative analysis 3. Purity analysis 4. Food and beverage analysis
Faculty In-Charge Name / Email / Contact	Prof. Shiny Joseph shiny@nitc.ac.in 04952285404
Technical Staff Name / Email / Contact	Muhammed Munaver Muhammedmunaver@nitc.ac.in 04952285484
Location of Instrument	Instrumentation Lab
Other Details	

User Charges:

S.NO.	Type of Analysis/Testing	Internal - within Department of NITC	Internal - Other Departments NITC	External Academic Educational Institutes	National Labs	Industry
1	Quantitative analysis		500	1000	1000	2000

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Slot Booking and Payment Work Flow:

- Discuss the slot availability with the technical staff in the instrumentation lab of chemical engineering department.
- Collect the request form.
- Payment should be at the accounts section of the institute.
- Get the request form signed from the faculty in charge.
- Submit the request form and samples in the instrumentation lab.