

UNIVERSITY OF JAMMU
SCHOOL OF BIOTECHNOLOGY, UNIVERSITY OF JAMMU-180006

School of Biotechnology, University of Jammu, Jammu & Kashmir is interested in the purchase of **HPTLC SYSTEM** as per specifications given in the Annexure 1. The Department invites sealed bids / tenders bids from reputed Manufacturers or their Authorized Distributors / Dealers for Supply, Installation and Training of **HPTLC SYSTEM**. Interested parties may submit their sealed bids online as per Technical Specifications given at Annexure 1 and General Terms & Conditions given at Annexure II. The tender will be published online on <https://jktenders.gov.in>. The TECHNICAL BID and PRICE BID has to be submitted online before the due date i.e. 12th of March 2021 Whereas hard copy of the TECHNICAL BID along with EMD has to reach to the office of the Director, School of Biotechnology, University of Jammu, Jammu 180006 before the due date in a sealed envelope (duly superscripted with Tender No. and date).

For any query pertaining to this tender contact Professor B. K. Bajaj, School of Biotechnology University of Jammu, Jammu 180006.

The technical bid will be evaluated first and price bid will be opened only in respect of those Vendors, who are found technically qualified after evaluation of Technical Bid. The Technical bid will be opened on 15th of March 2021 in the School of Biotechnology, University of Jammu, Jammu - 180006

Director
School of Biotechnology,
University of Jammu, Jammu - 180006

Ref. No. JU/SBT/2021/3204
Dated: 25-02-2021

Annexure-I

Item No	Equipment	Quantity	Technical Specification
1	<u>HPTLC SYSTEM</u>	1	<p style="text-align: center;"><u>THESE ARE THE MINIMUM SPECIFICATIONS. EQUIPMENTS WITH BETTER SPECIFICATIONS WOULD ALSO BE CONSIDERED.</u></p> <p style="text-align: center;">SPECIFICATIONS FOR HPTLC SYSTEM WITH PHOTODOCUMENTATION SYSTEM</p> <p>Integrated HPTLC system for quantification, identification, finger printing and micro-preparative separations. High Performance Thin Layer Chromatography</p> <p><u>HPTLC SOFTWARE</u> – New generation complete system & data acquisition, single software to link, control, integrate, manage the individual instruments for application, development, scanning and image documentation. Guides the user through chromatography steps. Numerous methods library available for internet download for lifetime. Client-server system for flexibility. Powerful database tracks individual samples and ensures data integrity. Automatic System Suitability detection and check. Built-in automatic back-up and restore tool for data. Produces a comprehensive GLP compliant analysis report with instrument, analyst, date, time, place, method parameters etc. and complete details. Communicates in both directions with instruments. Random and unique report ID given to each printout. Stores infinite number of methods and downloads them to instruments, when called for. Data security achieved through access control, customizable user Management, defined access levels to success. Safe database prevents accidental alteration / deletion. Essential for GLP & optional 21 CFR Rule 11 compliance and electronic data storage security and transmission.</p> <p><u>SEMI AUTOMATIC SPOT / BAND APPLICATOR</u></p> <p>5th Generation. Sprays sample to layer. Stand alone or System Manager Control. 4 mode applicator 1) Quantitative analysis 2) Micro-preparative chromatography (190mm band length & 500µl sample in one go) 3) Superimpose – int. std.or derivatization reagent in same method 4) in – situ clean-up (sample application at 110mm on y axis). Sample syringe – 100µl (for analytical work) 500µl (for micro-preparative work). Sample position on X & Y axis freely selectable. Automatic rate of sample dispensing. Method storage – 10 built-in or infinite through system manager. Method entry – Manual or download from System Manager. Can auto – test instruments (self-diagnosis).</p> <p><u>CHROMATOGRAM DEVELOPMENT CHAMBERS</u></p> <p>All glass, moulded, one piece, bubble free chamber for TLC/ HPTLC. Bottom divided into two equal halves</p>

with a sloping divider. Chamber top and bottoms (both outside the chamber and inside the two troughs) should be perfectly parallel to each other.

Chamber ground finish on top for good seal and at bottom for perfect level. Heavy chamber to minimise effects of vibration. One piece joint less moulded chambers prevent leakage and tough to handle while cleaning. Stainless steel rust proof lid with overhang to completely seal the chamber. Appropriate sizes for 20x20 cm, 20x10 cm and 10x10 cm plates.

**PROFESSIONAL TLC / HPTLC
PHOTODOCUMENTATION SYSTEM under GLP :**

Professional TLC / HPTLC Photodocumentation System, System Manager Controlled, comprising:

Fully automated image documentation at 254nm, 366nm and visible light.

Illumination Unit, Industrial Camera and HPTLC specific software.

Illumination unit – with 254 + 366 nm UV + Visible light (from above & below the plate). Uniform illumination.

60 KHz supply for instant, flickerless illumination. Easy access for changing tubes & filters and PCB. Auto switch off. Total darkness. Viewing window to observe plate in UV. Safety - UV switched off if door opened.

Camera 48 bit, high resolution industrial camera head (2⁴⁸ grey level resolution). Images of the highest quality. Fixed parameters for total reproducibility. True colours capture. Very linear response. Individually calibrated. Camera head is PC operated and does not have any controls. Image data and report through system manager software only, Tamper proof data.

HPTLC Specific Software – Automatic image optimization. Automatic exposure time to suit brightest zone within dynamic range of CCD. Full function annotation. R_f scale. Child image with or w/o ROI (Region of Interest) blow up. Auto image capture at 254nm and or 366nm and or white light. Raw data inaccessible to user. Spot application tool to detect faintest fractions. High speed data transfer USB 3.0. Control by System Manager. Options to process the image.

**SOFTWARE FOR PROFESSIONAL TLC / HPTLC
PHOTODOC SYSTEM (GLP) :**

High Resolution Documentation software for IQ-OQ, performance check, clean plate correction, image averaging, image subtraction, white adjust and flat field corrections. Very useful to create the best possible image for evaluation.

Image comparison viewer software. Allows

comparison of different tracks from different plates under GLP. A must for accurate comparison. Extremely user friendly. Can create artificial plate with relevant data.

Enhanced evaluation option Chromatogram advance algorithms for quantitative evaluation for images. Very useful for chromatography quantification at 254nm, 366nm and visible light.

TLC / HPTLC SCANNER WITH DATA EVALUATION :

System Manager controlled Scanner / Densitometer for automatic spectrum scanning for identity check as well as purity check; Automatic quantitative measurement by absorbance & fluorescence; All facility plate sizes acceptable; Reproducibility of positioning better than 50µm in Y direction & 100µm in X direction. Scan speed 100mm/sec @ 25µm resolution; Quick scan facility; Wavelength range 190-900 nm; Wavelength accuracy better than 1nm and reproducibility better than 0.2nm. Monochromator flushing by nitrogen; Data sampling rate – 4000 / sec; Special Macro optics for TLC & Micro optics for HPTLC. Apochromatic suprasil – fluorite lens system. Spectrum scan speed 100 nm / sec; Max 999 spectra / plate; Visible pilot slit image / scan compartment illumination with UV to check sample alignment with scan beam; D2, Hg, W lamps built-in. Self diagnostic + Service dialog + Universal filter for fluorescence also built-in; scan slit size variable; bandwidth selectable 5 or 20 nm. 16 bit, 2 channel interface, 100mg per double conversion.

Data evaluation 32 bit software (latest version), Excellent S/N ratio. High reproducibility; Controlled by System Manager, Automatic / Manual data integration, Auto baseline correction. Spot check facility. 3D display with data storage and auto calculation of each peak at its λ_{max} . Sub-component evaluation. Calibration - single level, multilevel, linear / non-linear. limit test support. Track profile subtraction. Statistics CV / CI. Reproducibility check facility. Auto calculation of data from wts and dil. factors , Computer generated random no. for each report (GLP compliance). Lamp use tracking. 2 level digital user manual. Service Dialog + self Diagnostics + Tutorial all built – in. Meets GLP. Optional IQ-OQ and 21 CFR Rule 11 certification.

ESSENTIAL SOFTWARE FOR SCANNER

- a) Spectrum Scanning option
- b) Scanner Quantification
- c) Scanner Multi Wavelength

SOLVENT FRONT MONITORING DEVICE

An electronic device to detect & monitor solvent front position during chromatography. Notifies acoustically visually that mobile phase has reached the pre developing distance during chromatogram development. Works with glass plates being developed in gla

			<p>chambers of different sizes 20 x 20 cm, 20 x 10 cm, 10 x 10 cm. Batteries included.</p> <p><u>General conditions: -</u></p> <p>Specifications should be confirmed from the website of the manufacturer. Good support from India is essential.</p> <p>Maintenance: A good team of service engineers, trained by the manufacturer is essential. Complete HPTLC CV should be within 2% analysis scanning. Detailed information of service engineers and their product training to be provided. AMC or CMC rates should be offered reasonably. Live product demo, with our samples is necessary. The same may be arranged at supplier's cost.</p> <p>Analysis support: Since we deal with complex samples, support for analysis should be given by the supplier by sending their application specialist. Equipment should be future proof and manufacturer is expected to offer upgrade whenever available rather than change models.</p> <p>Warranty period : 3 years. After sales services must be described in detail. After sales support through Application Lab is very essential.</p> <p>Training : 3 levels – 3 days during installation. Subsequently at supplier's Application lab and in our lab. Please provide full details of after sales services staff and application lab.</p> <p>Demo of various specifications should be given by the successful bidder before placing order.</p> <p>A live demo nearby and analysis of our samples will have to be done by bidders at their cost. Please provide complete details of your customer support lab in India. Training should be provided by the company as and when required in the next five years after the installation.</p> <p>The winning bidder will have to prove compliance with specifications before placing order!</p>
--	--	--	---

Annexure-II

General terms and conditions

1. Rates should be F.O.R. Jammu University Campus.
2. In case of foreign manufacturer kindly quote F.O.R Jammu University Campus in foreign currency. Also quote tentative charges for custom Duty, Clearance charges and Transportation and Insurance up to Jammu separately.
3. Goods must conform to our indicated specifications. Detailed technical and other specifications / literature must be enclosed.
4. Indicate concessional rates of tax for educational institutions. The GST rates must be clearly mentioned separately.
5. The submission of the tenders will be online. The Technical Bid and Price bid has to be submitted online on www.jktenders.gov.in. Whereas the hard copy along with EMD has to be submitted offline on or before due date in a sealed envelope.
6. Earnest Money Deposit (EMD) 2% of estimated price to be submitted along with commercial bid. Bids without EMD will be rejected.
7. The warranty of the product should be at least three Year.
8. The rates should be valid for 120 days. Both technical bid and the commercial bid addressed to undersigned and duly sealed /signed and tapped with official stamp should reach this office latest by 12th March 2021.
9. Bidder should submit Purchase orders and / user List as a proof of the dealing with other Government organizations / Institutions. The date of the supply order should be within last Three years from the date of publishing the BID.
10. Bidder should submit Valid Authorization Certificate from OEM for each against this NIT.
11. The firm/bidders should provide non blacklisting certificate mentioning it should not have criminal records/cases/activities.
12. Reports on Financial standing of the bidder such as profit and loss statement, balance sheet and auditor reports for the past three years, banker's certificate etc. should be provided by the bidders.
13. The bidder's firm should be established since last 5 years Documentary Evidence to be submitted along technical BID.
14. The bidder should have enough strength of people for the after sales support with their branch offices near to Jammu/Chandigarh. The details of Service Centre and Office addresses along with Service personnel need to be shared for the verifications.
15. Self-attested copies of GST and PAN card and Firm registration certificates to be submitted.
16. The bidder should have ISO or equivalent quality Certification.
17. The delivery, installation and operational training of the instruments/equipment should be completed within 45 days from placing of the order failing which the bank guaranty shall be retained by the Department.
18. The successful Bidder must provide Bank Guarantee equivalent to 10% of the cost of equipment to the Value of Order from Nationalized or Scheduled bank.
19. All Documents submitted in technical BID should be self-Attested (Signed and Stamped).