

राष्ट्रीय औषधीय शिक्षा तथा अनुसंधान संस्थान गुवाहाटी NATIONAL INSTITUTE OF PHARMACEUTICAL EDUCATION AND RESEARCHGUWAHATI

(Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers, Govt. of India) SilaKatamur (Halugurisuk), P.O.: Changsari, Dist: Kamrup, Assam, Pin: 781101.

No. NIPER-G/58/S&P/GAP-133/EQP/HPTLC/2021-22

Date: 24/01/2022

Minutes of Pre-Bid Meting

<u>Item Description</u>: Procurement of Supply and Installation of High Performance Thin Layer Chromatography (HPTLC) System

With reference to the tender enquiry No NIPER-G/58/,S&P/GAP133/EQP/HPTLC/2021-22 dated 17.12.2021 NIPER-G has invited open tender enquiry for the procurement of Supply and Installation of High Performance Thin Layer Chromatography (HPTLC) System. The following points has been discussed during the pre-bid meeting held on 22.12.2021(11:00 AM) and the necessary changes have been made in the tender document. The prospective Bidders are here by requested to quote the bids accordingly.

Original Tender Specifications as per the tender dated on 17-12-2021

HPTLC SOFTWARE

- ⇒ New generation complete system & data acquisition.
- ⇒ It should have single software to link, control, integrate, manage the individual instruments for application, development, scanning and image documentation.
- ⇒ Numerous methods library available for internet download for lifetime. Client-server system for flexibility.
- ⇒ Powerful database tracks individual samples and ensures data integrity.
- ⇒ It should have automatic System Suitability detection and check.
- ⇒ Built-in automatic back-up and restore tool for data.
- ⇒ It should Produces a comprehensive GLP compliant analysis report with instrument, analyst, date, time, place, method parameters etc. and complete details.
- ⇒ Random and unique report ID given to each printout. Stores infinite number of methods and downloads them to instruments, when called for.

Amended Tender Specification as per the pre bid meeting dated on 22-12-2021

HPTLC SOFTWARE

- ⇒ It should have single software to link, control, integrate and manage the system.
- ⇒ It should have an automatic system suitability detection and check.
- ⇒ It should be able to produce a comprehensive analysis report.



- ⇒ It should have data security achieved through access control and 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.

SEMI AUTOMATIC SPOT / BAND APPLICATOR

- ⇒ Modes: Stand alone or System Manager Controlled.
- \Rightarrow 5th Generation. Sprays sample to layer.
- ⇒ It should have 4 mode applicator 1)

 Quantitative analysis 2) Micropreparative chromatography (190mm band length & 500µl sample in one go)

 3) Superimpose internal standard or derivatization reagent in same method

 4) in situ clean-up (sample application at 110mm on y axis).
- ⇒ It should have heated nozzle blowing hot nitrogen on samples for quick drying.
- ⇒ Sample syringe capacity 5,10, 25, 50 and 100µl (for analytical work) or higher (for micro preparative work).
- ⇒ Sample position on X & Y axis and should be 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.
- ⇒ It should be able to do auto test instruments or validation or better (self-diagnosis).

SEMI AUTOMATIC SPOT / BAND APPLICATOR

- ⇒ Modes: stand alone and System Manager Controlled
- ⇒ It should have following features:

 (1) Quantitative analysis, (2)
 Micropreparative chromatography, (3)
- ⇒ Superimpose internal standard or derivatization reagent in the same method, (4) in situ clean-up.
- ⇒ Sample syringe capacity: 25, 50 and 100 μl or higher upto 500 μl.
- ⇒ Sample position on X and Y axis should be freely selectable.
- \Rightarrow It should be able to auto test the instrument (self-diagnosis).

CHROMATOGRPHIC DEVELOPMENT CHAMBERS

- ⇒ Development chamber should be of all glass, moulded, one piece, bubble free chamber for TLC/ HPTLC.
- ⇒ Bottom divided into two equal halves with a sloping divider.
- ⇒ Chamber top and bottoms (both outside the chamber and inside the two

CHROMATOGRPHIC DEVELOPMENT CHAMBERS

- ⇒ It should be all glass, moulded, one piece, bubble free chamber.
- ⇒ It should be jointless moulded chamber.
- ⇒ It should have rust proof lid with overhang to completely seal the chamber.

- troughs) should be perfectly parallel to each other.
- ⇒ Heavy chamber to minimize effects of vibration. One piece joint less moulded chambers prevent leakage.
- ⇒ Stainless steel rust proof lid with overhang to completely seal the chamber.
- ⇒ Appropriate sizes for 20x20 cm, 20x10 cm and 10x10 cm plates or better

 \Rightarrow It should be suitable for 20x10 cm and 10x10 cm plates or better.

MULTIPURPOSE CHAMBER FOR METHOD DEVELOPMENT

- ⇒ Multipurpose Chamber for a) Method development b) Rapid screening of samples c) Horizontal development.
- ⇒ Chamber comprises layer scraping module and development module.
- \Rightarrow Uses 10 x 10 cm glass plates.
- ⇒ Can run six mobile phases on one plate, side by side at the same time, with or without saturation.
- ⇒ New method developed in 3 4 runs. With mobile phase creation guide. For screening, run same sample with 6 different mobile phases.

MULTIPURPOSE CHAMBER FOR METHOD DEVELOPMENT

Specifications Omitted

AUTOMATIC DEVELOPMENT CHAMBER WITH HUMIDITY CONTROL (Optional)

- ⇒ Automatic developing chamber for fully automatic development of HPTLC plates.
- \Rightarrow It should be suitable for 20x20 cm, 20x10 cm and 10x10 cm plates or better.
- ⇒ Solvent front detection by CCD camera.
- ⇒ Activity and preconditioning of the layer, chamber saturation, developing distance and final drying can be preset and automatically controlled.
- ⇒ Sensor monitored humidity control device of the layer. System should have sensor to monitor development indications.

AUTOMATIC DEVELOPMENT CHAMBER WITH HUMIDITY CONTROL (Optional)

- ⇒ Automatic developing chamber for fully automatic development of HPTLC plates
- ⇒ It should be suitable for 20x20 cm, 20x10 cm and 10x10 cm plates or better.
- ⇒ Solvent front detection by CCD camera
- ⇒ Activity and preconditioning of the layer, chamber saturation, developing distance and final drying can be pre-set.
- ⇒ It should be automatically controlled.
- ⇒ Sensor monitored humidity control of the layer

GRADIENT AUTOMATIC MULTIPLE DEVELOPMENT CHAMBER (OPTIONAL)

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Specifications Omitted

- ⇒ Digitally controlled chromatogram developing chamber.
- \Rightarrow 25 times stepwise multiple development in the same direction or better.
- ⇒ 5 solvents to make gradient or better.
- ⇒ Plate drying time 1 5 min or better. Mobile phase front monitoring by CCD camera.
- ⇒ Vacuum sensor inbuilt.
- ⇒ Built-in validation software and selfdiagnostics. Suitable vacuum pump should be provided.
- ⇒ System should have sensor to monitor development indications.

TLC/HPTLC PLATE HEATER

- \Rightarrow Stain resistant glass top.
- ⇒ Temperature range ambient to 200°C or higher.
- ⇒ It should have overheated protection. Uniform heating of the plate.
- ⇒ Digital monitoring of the set and actual temperature display remains on as long as plate is hot. Upto 20 x 20 cm size plates or better.

\Rightarrow TLC/HPTLC PLATE HEATER

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- ⇒ Digital monitoring of the set and actual temperature

HPTLC PHOTODOCUMENTATION SYSTEM UNDER GLP

- ⇒ Fully automated image documentation at 254, 366 nm 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.
- ⇒ Automatic switch off for UV if door is opened. Total darkness. Viewing window to observe plate in UV.
- ⇒ High resolution 48-bit industrial camera or better with adjustable focal length (4096 grey level resolution) or better. Individually calibrated. Camera head is PC operated and does not have any controls.

PHOTODOCUMENTATION SYSTEM

- ⇒ Fully automated image documentation at 254, 366 nm and visible light
- ⇒ Illumination unit, industrial camera and HPTLC specific software
- ⇒ Viewing window to observe the plate under UV light
- ⇒ Automatic switch off for UV if the door is opened
- ⇒ High resolution camera
- ⇒ Digitally controlled industrial camera head
- ⇒ Image data and report through system manager software
- ⇒ Automatic exposure time to suit brightest zone within the dynamic range of CCD

- ⇒ Image data and report through system manager software only, Tamper proof data.
- ⇒ Automatic exposure time to suit brightest zone within the dynamic range of CCD

SCANNER (optional)

- ⇒ System Manager controlled Scanner / Densitometer for automatic spectrum scanning for identity check as well as purity check
- ⇒ Automatic quantitative measurement by absorbance & fluorescence.
- ⇒ Reproducibility of positioning better than 50µm in Y direction & 100µm in X direction or in both direction or better.
- ⇒ Scan speed 100mm/sec at 25μm resolution or better; Quick scan facility; Wavelength range 190-900 nm or higher
- ⇒ Wavelength accuracy better than 1nm or better and reproducibility better than 0.2nm or better. 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 with variable scan slit size.
- ⇒ Self-diagnostic + Service dialog + Universal filter for fluorescence also built-in; scan slit size variable; bandwidth selectable 5 or 20 nm. 16bit, 2 channel interfaces, 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

SCANNER (optional)

- ⇒ System Manager controlled scanner or densitometer for automatic spectrum scanning. Automatic quantitative measurement by absorbance and fluorescence
- ⇒ Reproducibility of positioning 100 μm in both the directions or better
- ⇒ Auto baseline correction feature
- \Rightarrow Spot check feature
- ⇒ 3D display with data storage and auto calculation of each peak at its λmax

- 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.
- ⇒ 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

DERIVATIZER (Optional)

- ⇒ Automatic spraying derivatizer.
- ⇒ Highly homogeneous reagent distribution through optimized droplet size.
- ⇒ Recommended settings for the most common derivatization reagents. Safe and environmentally friendly operation through closed system.
- \Rightarrow It should be suitable for 20x20 cm, 20x10 cm and 10x10 cm plates or better.

PLATE IMMERSION DEVICE FOR DERIVATIZATION

- ⇒ Uniform distribution of derivatization reagent due to controlled dipping.
- ⇒ Suitable for 20 x 20 cm & 20 x 10 cm plates; Universal plate holder clamp; Dipping speed 30 mm to 50 mm /sec., Variable dip time 1 to 8 secs. & Indefinite. Ribbed and narrow dip chambers for reduced volume of reagent. Battery operated. Complete with 20 x 10 cm dip tank & its lid.

MANUAL REAGENT SPRAYER

Glass reagent sprayer with spray head & 100 ml flask. Ultra-fine and uniform spray.

DERIVATIZER (Optional)

Automatic spraying derivatizer Highly homogeneous reagent distribution through optimized droplet size

Recommended settings for the most common derivatization reagents. Safe and environmentally friendly operation through closed system

It should be suitable for 20x20 cm, 20x10 cm and 10x10 cm plates or better.

PLATE IMMERSION DEVICE FOR DERIVATIZATION

Specifications Omitted

MANUAL REAGENT SPRAYER

Glass reagent sprayer with spray head & 100 ml flask. Ultra-fine and uniform spray.

TLC MS INTERFACE (optional)

- ⇒ HPTLC interface for MS.
- ⇒ Rapid and contamination free elution of TLC/ HPTLC zones with online transfer to MS, for guaranteed substances identification.
- ⇒ Plug and play with most mass spectrometers. Elution into vials for further analysis e.g. NMR, IR and other MS techniques. Oval head for elution built in. Circular head optional. Improved elution head and easily exchangeable filter before switch valve.
- ⇒ Push button cleaning of elution path by compressed gas to prevent clogging. Laser for alignment of elution head and zone. Plate table with scale. Adjustable plate stopper. Suitable for glass and aluminum foil backed plates. Should be supplied with suitable pump and nitrogen cylinder, 4 bar N2 required. Pump for Elution solvent required (50-300 μl / flow min.)

TLC MS INTERFACE (optional)

- ⇒ HPTLC interface for MS (TQD and HRMS both should connect via interface)
- ⇒ Rapid and contamination free elution of the HPTLC zones
- ⇒ Cleaning of elution path by compressed gas
- ⇒ Laser guided alignment of the elution head and zone
- ⇒ Suitable for glass and aluminium foil backed plates.
- ⇒ Should be supplied with suitable pump and nitrogen cylinder.

HPTLC SPECIFIC SOFTWARE-

Automatic image optimization. Automatic Exposure time to suit brightest zone within dynamic range of CCD. Full function annotation. Rf scale. Child Image with or without ROI (Region of Interest) blow up. Auto image capture at 254 nm and or 366 nm and/or white light.

Professional Image Enhancement software for clean plate correction, image averaging, and white adjusts and flat field corrections. Image comparison viewer software.

Omitted

COMPUTER

One branded workstation Wi-Fi enabled Desktop desk top computer processor intel core i7 @ 3.40 GHz Ram 64 GB, Memory 1TB, Screen 27 inch or more, DVD write drive, keyboard and mouse with laser jet multi-functional printer with high-speed USB, wireless connect, up to 26 pages per minute and toner capacity 1200 pages or more for running the equipment and software.

Vendor may also quote all in one computer with same specifications with licensed mass software

COMPUTER

One branded workstation Wi-Fi enabled Desktop desk top computer processor intel core i7 @ 3.40 GHz Ram 64 GB, Memory 1TB, Screen 27 inch or more, DVD write drive, keyboard and mouse with laser jet multi-functional printer with high-speed USB, wireless connect

Vendor may also quote all in one computer with same specifications with licensed mass software



License version of windows professional OS & MS-Office professional and driver with original CD

OTHER REQUIRMENTS

- 1. Essential item/ software required for the run the HPTLC system with it's all part
- 2. Appropriate 15 KVA UPS cum stabilizer with at least 3-4-hour backup must be supplied.
- 3. TLC plates (1000 nos of 20×20 cm size)
- 4. Basic operational kit and other required part.
- 5. Free of cost at site minimum 3 weeks training for operating instrument at the time installation. There will be two trainings, installation training and months advanced application training. Apart from these two, there will be application training every six months (till warranty period) on a mutually convenient date. Subsequently at supplier's Application lab and in our lab.
- 6. Demo of various specifications should be given by the successful bidder before placing order.
- 7. A live demo nearby and analysis of our samples will have to be done by bidders at their cost.
- 8. Please provide complete details of your customer support lab. in India and training charges if any in the next three years after the installation.
- 9. The winning bidder will have to prove compliance with specifications before placing order!
- 10. Analysis support: Since we deal with complex samples, support for analysis should be given by the supplier by sending application specialist. Equipment proof future should be and manufacturer is expected to offer upgrade whenever available rather than change models.

OTHER REQUIRMENTS

- 1. Should supply TLC plates (1000 nos of 20×20 cm size)
- 2. Basic operational kit and other required part.
- 3. Free of cost at site calibration and minimum 3 weeks training for operating instrument at the time of installation.
- 4. There will be two trainings, installation training and after few months advanced application training.
- 5. Apart from these two, there will be application training every six months (till warranty period) on a mutually convenient date. Subsequently at supplier's Application lab and at NIPERG
- 6. Demo of various specifications should be given by the successful bidder before placing order.
- 7. A live/online demo nearby and analysis of our samples will have to be done by bidders at their cost.
- 8. Please provide complete details of your customer support lab. in India and training charges if any in the next three years after the installation.
- 9. The winning bidder will have to prove compliance with specifications before placing order!
- 10. Analysis support: Since we deal with complex samples, support for analysis should be given by the supplier by sending their application specialist.
- 11. Equipment should be future proof and manufacturer is expected to offer upgrade whenever available rather than change models.
- 12. Specifications should be confirmed from the website of the manufacturer. Good support from India is essential.

- 11. Specifications should be confirmed from the website of the manufacturer.
 - Good support from India is essential.
- 12.3 Years comprehensive warranty for all spare parts related to instruments.
- 13. Price details for additional five years of AMC after completion of three year of warranty and five years of AMC to be quoted as optional with 2 (Two) preventive and 1 (One) break down visit minimum must also be given.
- 14.NIPER-Guwahati will provide only empty room with electrical connections. Vendors will have to make arrangements for all the suitable furniture including granite table with chair, lab stool (02 numbers) and other accessories for the successful operation of the equipment.
- 15. Availability of spares & Consumables: A declaration regarding availability of spares & consumables at least for 10 Years.
- 16. Vendor must quote all the optional items.
- 17.All the chemicals/standards and necessary items required during installation and training should be supplied by vendor.

- 13.Bidders should quote for one-year standard warranty. Date of warranty will be considered from the date of installation & commissioning and certified by the indenting officer
- 14. Bidders are further requested to quote for cost towards additional warranty for second and third year. Depending on the need the institute will consider inclusion of availing additional warranty as per the quoted warranty amount.
- 15. Price details for additional two years of AMC/CMC after completion of three years warranty with minimum of 3-4 maintenance visits per year may be quoted.
 - NIPER-Guwahati will provide only empty room with electrical connections. Vendors will have to make arrangements for all the suitable furniture including granite table with chair, lab stool (02 numbers) and other accessories for the successful operation of the equipment.
- 16. Availability of spares & Consumables: A declaration regarding availability of spares & consumables at least for 10 Years.
- 17. Vendor should quote all the optional items. (These items will not be consider for technical or financial comparison)

Note: Items Quoted under optional items will not be considered at the time of technical / finance comparison.

The Due date for the submission of bids is here by extended up to 09.02.2022 till 14:00 Hrs.

The technical bids will be opened on 09.02.2022 at 15:00 Hrs.

The other terms and conditions will remains unchanged as mentioned in the tender document.

Braver Raal 25/01/22 Stores and Purchase officer

भंडार एवं क्रय अधिकारी / Stores & Purchase Officer नाइपर गुवाहाटी, असम (भारत) / MIPER Guwahati, Assam (India)