

**SUB : FINAL AND FROZEN TECHNICAL SPECIFICATION FOR  
DISPLAY ON NIC'S CPP PORTAL & CSIR-IICB'S WEBSITE.**

**REF : PRE-BID CONFERENCE HELD ON 24.01.2018 AT 05:00PM  
(IST) AT CSIR-IICB, KOLKATA.**

Sl. No.	Name of the Item/Description	Quantity	Earnest Money Deposit (EMD) to be submitted along with Technical Bid		
			INR ₹	US \$	Euro €
1.	Enq No. IICB/PUR/536/540/434/2017-18	01 Unit			
	Flash Chromatography Purification System with Mass Spectrometer (FCMS)		120,000-00	1880.00	1576.00
Last date and time of Submission of bids/quotations by the prospective bidders in Two-Bid format as per tender document against final/frozen technical specifications by CSIR-IICB after Pre-Bid Conference		12.02.2018 upto 01:00 PM (IST)			
Date and Time of Opening of Technical Bids		13.02.2018 at 03:30 PM (IST) onwards			
Venue of Opening of Technical Bids		NIC's CPP Portal			
Tenders to be submitted at		NIC's CPP Portal			

34130  
31.01.2018

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## Flash Chromatography Purification System with Mass spectrometer (FCMS) –

### Modified Specifications

#### Technical Specification:

1. Compact automated Flash Chromatography System capable to work with **normal phase silica** as well as **reverse phase C-18 flash column**. System must have **Inbuilt PDA variable wavelength UV-Vis detector** and option to connect ELS detector in future.

#### Pumping System:

2. Four solvent inlets with binary gradient of linear, step or isocratic mode.
3. Maximum pressure capacity should be **200 psi or better**
4. Flow rate from **5 ml/min to 200 ml/min**.

#### Detector:

5. **Integrated PDA** variable wavelength UV-Vis detector with automatic collection of fractions at all available wavelengths from 200 to 800 nm or more.
6. Flow cell should be compatible with a wide range of solvents and must be able to handle the high pressure of the system.

#### 7. Mass Spectrometer Detector:-

- 7.1 **Single quadruple mass detector**
- 7.2 Capable of performing mass directed purification
- 7.3 Mass detection range: **50 m/z to 1200m/z**
- 7.4 **Mass accuracy: +/- 0.1 m/z units.**

- 7.4 Auto switch between Positive and Negative Ionization Modes.
- 7.5 MS Ionization Probes: **Electrospray Ionization (ESI) standard and Atmospheric Pressure Chemical Ionization (APCI) optional.**  
Possible to switch between the two probes quickly.
- 7.6 MS Sensitivity: SIM sensitivity: 10 pg Reserpine with S/N of 100:1(RMS).
- 7.7 Provision for direct injection into Mass Spectrometer
- 7.8 Should be provided with all required vacuum pump and accessories.
- 7.9 Provision of interface platform for integration of chromatographic system with mass spectrometer.
- 8.0 Should provide **all required accessories to complete the installation and demonstration of the FCMS system.**

**Software/Display, injection port, Fraction collector:**

- 8. Real time & post run spectral display with **peak purity by spectral ratio.**  
System should give indication to identify pure and impure fraction.
- 9. Automatic isocratic peak hold whenever peak is coming. Normal and quick equilibrium facilities.
- 10. Automatic Injection valve for solid sample injection with automatic self-cleaning at the end of the run. Liquid injection also should be possible through same injection valve.
- 11. Solvent level sensors in all solvent inlet & waste bottles for physical solvent management.
- 12. System should be **compatible with different size of Fraction collector racks.**
- 13. Touch screen control software with real time method editing, method scale up feature.
- 14. Identification of column history, column size with media & fraction collector rack size.
- 15. Safety features like over pressure sensor, vapor sensor & grounded solvent path.
- 16. Flash Chromatography System must have facilities to connect ELS detector in future.

**Printer & Warranty**

A laser jet printer & 1 year warranty (CMC) and service warranty up to 3 years are required.

**In addition to this, there has been some amendment in the following clauses of CHAPTER-III [Instruction to the Bidders/Terms & Conditions] :**

<p>Clause No. 8.5.1 (at Page no. 12)</p>	<p>Installation &amp; Commissioning</p>	<p>Installation &amp; Commissioning will be the sole responsibility of the Supplier / Indian Agent <b>as per terms &amp; conditions of ICB's tender enquiry</b>. The vendor and Indian Agent will complete the installation &amp; commissioning within <u>30 days</u> from the date of supply of equipment to CSIR-IICB.</p>
<p>Clause No. 31.6 (at Page No.18)</p>	<p>Process of evaluation (Between two or more foreign currency quote)</p>	<p>In the purchase of many items against one tender, which are not inter-dependent or where compatibility is not a problem the comparison would be done on FOB/FCA price + 01 year comprehensive warranty and service warranty upto 03 years to facilitate the proper cost comparison of technically suitable foreign currency bids. This evaluation would be followed while comparing two or more foreign currency quotes. Thus the (FOB/FCA prices) + 01 year comprehensive warranty and service warranty upto 03 years would be taken into consideration while finalizing the technically suitable lowest quoting firm. All the bidding firms should ensure that their FOB/FCA price should have packing, forwarding, internal freight, insurance charges mentioned so as to make it a technically responsive quote. The CIF/CIP prices quoted in such cases only act as an estimate and would not be taken for comparison of two or more foreign currency quotes. <u>The Annual Maintenance Charges would <b>not</b> be the basis of evaluation.</u> The Annual Maintenance charge would only be an estimate so that CSIR-IICB can take a decision at a future date whether it wants to enter into an AMC for the particular equipment at the price quoted by the bidding firms. To make it a technically responsive bid firms should quote both FOB as well as their CIF Kolkata, India, charges although for cost comparison purposes and for deciding the technically lowest quote the (FOB/FCA prices) + 01 year comprehensive warranty and service warranty upto 03 years would only be the basis of evaluation between two or more foreign currency quotes taken into consideration.</p> <p>Note: In case where the foreign principal quotes and he does not have an agent in India then the foreign service engineer visit and AMC charges should be provided. The foreign service engineer's visit during installation &amp; commissioning would be added for the purpose of cost comparison and selection.</p> <p>The Institute seeing the competitiveness of the CIF / CIP price quoted can place the order on CIF / CIP basis but the basis of evaluation for deciding a technical suitable lowest quoting bid would be FOB/FCA prices) + 01 year comprehensive warranty and service warranty upto 03 years.</p>