

	<p>Central Pollution Control Board Regional Directorate (South), A block, Nisarga Bhawan, I and II Floors, 7th D cross, Thimmaiah Road, Shivanagar, Bengaluru-560079. Tel: 08023233739, 23233827, Fax:080-23234059 Email: cpcbszo@yahoo.com & zobangalore.cpcb@nic.in</p>
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Ref : CPCB/RLB/ IC/QT/18-19 / 2008

6/ 02/ 2019

Sub: Tender for supply of Ion Chromatograph

Dear Sir/Madam,

1. The Regional Director (South), Central Pollution Control Board (CPCB), invites the Online tender in single stage two bid system for the supply of **Ion Chromatograph** along with all its accessories at Regional Laboratory, Central Pollution Control Board (CPCB), Reginal Directorate (South), Bengaluru located at 'A' block, Nisarga Bhavan, 2nd Floor, 7th D Cross, Thimmaiah Road, Shivanagar, Bengaluru 560079.
2. The tender document could be downloaded from CPCB website www.cpcb.nic.in. or Central Public Procurement Portal (CPPP) website.<https://eprocure.gov.in/eprocure/app>.The tender document shall not be tampered /modified including downloaded financial bid template in any manner. In case if the same is found to be tampered /modified in any manner, tender will be rejected summarily.
3. Bids along with the copies of PAN & GST registration shall be submitted through online at CPCB website www.cpcb.nic.in. or Central Public Procurement Portal (CPPP) website.<https://eprocure.gov.in/eprocure/app> . Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document. Not more than one tender shall be submitted by one tenderer in any case.
4. Intending Tenderers are advised to visit regularly CPCB website www.cpcb.nic.in or Central Public Procurement Portal (CPPP) website.<https://eprocure.gov.in/eprocure/app> till closing date of submission for any corrigendum/addendum/amendment.
5. The schedule of the tender process is given below

S.No	CDS- Details of Schedule	DD	MM	YY	Hr	Min
1.	Published Date	06	02	2019	15	00
2.	Bid Documents Down Load Starting Date	06	02	2019	15	00
3.	Bid Documents Submission Starting Date	06	02	2019	15	00

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4.	Bid Documents Submission Ending Date	25	02	2019	18	00
5.	Bid Opening Date	27	02	2019	11	00
6.	Bid opening Address	Central Pollution Control Board Regional Directorate (South) A block, Nisarga Bhawan, I and II Floors, 7th D cross, Thimmaiah Road, Shivanagar, Bengaluru-560079				

7. The Tender shall be submitted in two parts, viz, **Technical Bid and Financial Bid**. The detailed technical specification of **Ion Chromatograph** along with all its accessories are given in Annexure-I. Technical Bid shall be submitted as per Annexure-II and Financial Bid as per Annexure III. All the pages of Technical Specifications, supporting documents & Brochures must be signed and sequentially numbered by the bidder irrespective of nature of contents of the documents before uploading. The offers submitted by Fax/email or any other mode shall not be considered.
8. The Tenderer shall also submit Hard copies of same documents (Technical bid which have been uploaded in the e-portal) to this office before the last date of submission as mentioned in the schedule of tender process. However, the document submitted through online is final.
9. The minimum validity of tender is six months (180 days) from the date of opening of the financial bid
10. The instrument/equipment shall be delivered alongwith the Invoice in original at this office within 15 days from the date of issue of Supply Order along with duly filled in **PFMS** form for the release of payment
11. The payment shall be released after the timely delivery, demo and satisfactory performance of the instrument/equipment.
12. Applicable Income Tax and other taxes as applicable shall be deducted at source
13. For any technical clarification Smt B.S. Anupama, Sc 'C' (Mob: 9880027983) may be contacted for further information.
14. It may be noted that mere quoting the lowest rates will not entitle any tenderer to get the confirmation of Supply Order
15. In the event of any dispute, the decision of the Chairman, Central Pollution Control Board shall be final and binding upon both the parties.
16. The Chairman, Central Pollution Control Board reserves the right to cancel any or all the tenders without assigning any reasons thereof.

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17. Typographical & Clerical errors are subject to correction.

Yours faithfully



(S.Suresh)

Regional Director

Encl: 1. Annexure-I mentioning Technical Specifications (Page No 4 to 8)

2. Annexure-II, Technical Bid document

3. Annexure-III, Financial Bid document

Copy to:

1. Notice Board, CPCB, RD(S), Bengaluru - 560079

2. Incharge and AD, IT Division, CPCB, Delhi - with a kind request to upload the document in CPCB website and ccpp portal pl.





Central Pollution Control Board

Regional Directorate (South), A block, Nisarga Bhawan, I and II Floors,
7th D cross, Thimmaiah Road, Shivanagar, Bengaluru-560079.

Tel: 08023233739, 23233827, Fax: 08023234059

Email: cpbszo@yahoo.com, zobangalore.cpcb@nic.in

Scope of work: Supply of **Ion chromatograph** along with all accessories

Specifications for Ion chromatograph		
1.	Ion chromatograph	
	Instrument Composition:	
	Ion chromatograph with high pressure Gradient Pump	One set of two pumps for parallel analysis of cations and anions
	Autosampler System	One set
	Injectors	Two sets
	Detectors	Two sets
2.	Technical specification	
	System type	Computer controlled, modular system made of non-metallic, preferably inert material like PEEK (polyetheretherketone), impact, resistant and corrosion resistant.
	System application	For reliable, precise and specific measurement of anions and cations in extracted air particulate samples and water samples.
	Power failure memory protection	Power failure memory protection.
	Self testing diagnostics	Built in diagnostics for self-testing
	Data acquisition	Data acquisition and system control through software.
3.	Injector	Manual injection port or user selectable injection loop. Internal pump
4.	Flow system	Computer controlled pumps (two nos.) for simultaneous/parallel analysis of anions & cations.
	Flow pump	Dual piston pump
	Display	Digital and screen display of pressure and flow rate
	Flow rate	0.1 to 10.0 ml/min
	Flow rate accuracy	± 2% of set value
	Flow rate precision	± 0.1%
	Pressure Range	0 - 5000 psi

	Pressure fluctuation	≤ 0.5% of set value or better
	Liquid contact material should be non interfering type	Liquid contact material
	Accessories	With maintenance kit, reservoir tray,
5.	Suppressor system	Proper facilities for suppression of conductance signal for eluent used for both cations and anions. Minimum 8 years warranty with warranty
	Stability	High sensitivity and excellent baseline stability.
	Flush	Regeneration and flushed alternatively and automatically.
	Switching	Switching should be effected simultaneously with injection of sample.
	Regeneration	Effective and suitable regeneration facilities for both anions & cations.
6.	Detector	Built in conductivity detector with cell temperature stabilization (Thermostated programmable cell) for ppb level analysis
	Operating temp. range	10 to 40 °C or higher
	Temperature stability	± 0.01 °C or better
	Range	0 to 15000 µS
	Accuracy	± 5% of full scale
	Noise (electronic)	≤ 0.003% of selected range
	Temperature drift	Should be negligible
	Electronic drift	≤ 0.0015% of selected range/h/ °C
	Zero adjustment	Automatic with auto zero facility
	Cell volume	2.0 µl or less
	Cell constant	10 – 20 user adjustable
	Display	Digital display for set status and output
	Diagnostic test	Option for both self diagnostic test and user diagnostic test
	Autosampler System	
	Injection volume	1 to 100 µl or higher
	Injection mode	Sequential / Programmable (both) with LCD display
	No. of sample vials	25 or more
	Sample vial size	2 to 5 ml or more
7.	Columns (For Anions and Cations)	Two columns for cation analysis and two columns for anions analysis.
	Temperature range	5 to 80 °C or higher
	Back pressure	250 bar
	Column Dimension	Suitable to be accommodated inside the chromatography enclosure
	Column fittings and tubing	Appropriate in sizes and length as per application
8.	Chromatography Enclosures	For housing of injector, suppressor unit, column unit and detector unit

9.	Suppressor	Should have high loading and high back pressure tolerance with
10.	Data Work Station	
11.	Application Software Control	Multitasking software displaying method sample and analysis status,
		Calculation of data and report formatting
		Automatic correction of interferences and measurement with
		standards
		Comprehensive quality control protocols including blank, multiple quality control standards, calibration, calibration failure with QA/QC audit trails
		Provision for statistical analysis, printer / plotter function and battery backup for memory protection.
		System suitability, system security and system check functions such as calibration, quantitative analysis
		Data retrieval, data acquisition and customizable instrument status display.
		Extractable data format and direct conversion to Excel spreadsheet through macro
12.	Computer System	
	Make	Reputed brand such as HP/Compaq/Dell
	Processor	Intel Core i7 3770 (3.4 GHz, 8MB cache, 4 cores)
	RAM	4 GB DDR-III RAM 1066 MHz (upgradeable to 8 GB)
	HDD	3.5", 500 GB 7200 RPM SATA HDD
	Monitor	21" TFT-LCD Flat Colour (Digital)
	DVD Writer	22 X DVD Multi-drive Internal
	Ports	2 Serial, 1 parallel and 2 USB front 3 Rear USB2 Port, 1PS-2 Keyboard, 1PS-2 Mouse port, 1VGA 4 bays (2 external & internal) with LAN 1PS
	Key board	Latest multimedia (HP / Microsoft) Internet ready
	Mouse	Optical mouse with pad
	Ethernet	32/64 bit auto selectable Ethernet ports with autosensing, 2 nd NIC card on PCI Autosensing is to cater to 100 / 1000 Mbps speeds automatically and not a boot ROM
	Graphics	Integrated Graphics Media Accelerator x 4500, support upto 800 MB video memory through DVMT
	Sound	Integrated 5.1 Channel high definition audio subsystem and inbuilt

	Printer	HP LaserJet Printer 1200 x 1200 dpi 12 PPM black
13.	Softwares	<p>a) Pre-loaded Windows 7 Professional operating system or latest with Licensed CD</p> <p>b) MS Office Professional 2013 with media, manual and Licensed CD</p> <p>c) Preloaded Norton Antivirus latest version of 3 years lifetime along</p>
		Licensed CD
14.	Auto Dilution and Calibration	In built multi level calibration using single calibration standard. Auto dilution system should be automatic, programmable, should generate various concentration of standards from single standards and sealed calibration conc.
15.	Filtration Assembly	Compatible filtration assembly complete with pump, 45 mm, 0.22 μ pre size filter papers (500 Nos. i.e. 5 packets),filtration flask tubings
16.	Additional Items	
	Manufacturer's standard kit	Standard operation kit including all required items, fittings for start up regular operation of instrument
	Operation and Maintenance Manual	Operation and Maintenance Manual for each unit
	Application note	Application note for anions and cations analysis in environmental,
	Methodology package	Comprehensive EPA methodology package software (CD-ROM) for environmental application
	Service manual	Service manual with set of required tools for each system/unit
	Spare parts catalogue	Spare parts catalogue
	Trouble shooting charts	Trouble shooting charts
	Operation kit	Operation kit including all required items, tubing, fitting for start up /
	Spares and consumables	All spares and consumables for two years of operations should be
17.	Operation & Maintenance Training component	Complimentary (all expenditure inclusive) two-four weeks training to two scientists on operation and maintenance aspect of the

		instrument at manufacturers facility /Application Laboratory in India.
18.	General Conditions of Supply	<p>a) The instrument and all its sub units should operate on 230 ± 10 volts 50 Hz power supply.</p> <p>b) All the operation and maintenance manuals, circuit diagrams, application notes and applicatio0n softwares should be in English language</p> <p>c) The supplier / manufacturer should . have Indian agent to provide after sales service</p> <p>d) The main unit and all the sub units of the instrument should be serviced by the Indian representative of supplier</p> <p>e) The Bidder should be a manufacturer/authorized representative of a manufacturer, who must have designed, manufactured, tested and supplied two numbers of such equipment similar to the type specified in the past five years, which shall be in successful operation for atleast 2 years as on the date of bid</p> <p>f) The bidder should furnish the information on past supplies and their satisfactory performance.</p> <p>g) Bidders shall invariably furnish documentary evidence (client's certificate – atleast two) in support of the satisfactory operation of the equipment as specified above. Notwithstanding anything stated above the purchaser reserves the right to assess the capability and capacity of the bidder to perform the contract, should the circumstances warrant such an assessment in the overall interest of the purchaser</p> <p>h) Comprehensive warranty with spares for 3 years from the date of installation of the instrument should be covered.</p>



Technical Bid Submission form for Ion chromatograph

Ion chromatograph				
S. No.	Items	Specification / Description of items	*Statement of Compliance	
1.	Instrument Composition:			
	Ion chromatograph with high pressure Gradient Pump	One set of two pumps for parallel analysis of cations and anions		
	Autosampler System	One set		
	Injectors	Two sets		
2.	Detectors	Two sets		
	Technical specification			
	System type	Computer controlled, modular system made of non-metallic, preferably inert material like PEEK (polyetheretherketone), impact, resistant and corrosion resistant.		
	System application	For reliable, precise and specific measurement of anions and cations in extracted air particulate samples and water samples.		
	Power failure memory protection	Power failure memory protection.		
	Self testing diagnostics	Built in diagnostics for self-testing		
	Data acquisition	Data acquisition and system control through software.		
	3.	Injector	Manual injection port or user selectable injection loop. Internal pump	
		4.	Flow system	Computer controlled pumps (two nos.) for simultaneous/parallel analysis of anions & cations.
	Flow pump		Dual piston pump	
Display	Digital and screen display of pressure and flow rate			
Flow rate	0.1 to 10.0 ml/min			
Flow rate accuracy	± 2% of set value			
Flow rate precision	±0.1%			
Pressure Range	0 - 5000 psi			
Pressure fluctuation	± 0.5% of set value or better			
Liquid contact material should be non interfering type	Liquid contact material			

	Accessories	With maintenance kit, reservoir tray,	
5.	Suppressor system	Proper facilities for suppression of conductance signal for eluent used for both cations and anions. Minimum 8 years warranty with warranty	
	Stability	High sensitivity and excellent baseline stability.	
	Flush	Regeneration and flushed alternatively and automatically.	
	Switching	Switching should be effected simultaneously with injection of sample.	
	Regeneration	Effective and suitable regeneration facilities for both anions & cations.	
6.	Detector	Built in conductivity detector with cell temperature stabilization (Thermostated programmable cell) for ppb level analysis	
	Operating temp. range	10 to 40 °C or higher	
	Temperature stability	±0.01 °C or better	
	Range	0 to 15000 µS	
	Accuracy	±5% of full scale	
	Noise (electronic)	≤ 0.003% of selected range	
	Temperature drift	Should be negligible	
	Electronic drift	≤0.0015% of selected range/h/ °C	
	Zero adjustment	Automatic with auto zero facility	
	Cell volume	2.0 µl or less	
	Cell constant	10 – 20 user adjustable	
	Display	Digital display for set status and output	
	Diagnostic test	Option for both self diagnostic test and user diagnostic test	
	Autosampler System		
	Injection volume	1 to 100 µl or higher	
	Injection mode	Sequential / Programmable (both) with LCD display	
	No. of sample vials	25 or more	
	Sample vial size	2 to 5 ml or more	
7.	Columns (For Anions and Cations)	Two columns for cation analysis and two columns for anions analysis.	
	Temperature range	5 to 80 °C or higher	
	Back pressure	250 bar	
	Column Dimension	Suitable to be accommodated inside the chromatography enclosure	
	Column fittings and tubing	Appropriate in sizes and length as per application	
8.	Chromatography Enclosures	For housing of injector, suppressor unit, column unit and detector unit	

9.	Suppressor	Should have high loading and high back pressure tolerance with	
10.	Data Work Station		
11.	Application Software Control	Multitasking software displaying method sample and analysis status, Calculation of data and report formatting Automatic correction of interferences and measurement with standards Comprehensive quality control protocols including blank, multiple quality control standards, calibration, calibration failure with QA/QC audit trails Provision for statistical analysis, printer / plotter function and battery backup for memory protection. System suitability, system security and system check functions such as calibration, quantitative analysis Data retrieval, data acquisition and customizable instrument status display. Extractable data format and direct conversion to Excel spreadsheet through macro	
12.	Computer System		
	Make	Reputed brand such as HP/Compaq/Dell	
	Processor	Intel Core i7 3770 (3.4 GHz, 8MB cache, 4 cores)	
	RAM	4 GB DDR-III RAM 1066 MHz (upgradeable to 8 GB)	
	HDD	3.5", 500 GB 7200 RPM SATA HDD	
	Monitor	21" TFT-LCD Flat Colour (Digital)	
	DVD Writer	22 X DVD Multi-drive Internal	
	Ports	2 Serial, 1 parallel and 2 USB front 3 Rear USB2 Port, 1PS-2 Keyboard, 1PS-2 Mouse port, 1VGA 4 bays (2 external & internal) with LAN 1PS	
	Key board	Latest multimedia (HP / Microsoft)	
	Mouse	Optical mouse with pad	
	Ethernet	32/64 bit auto selectable Ethernet ports with autosensing, 2 nd NIC card on PCI Autosensing is to cater to 100 / 1000 Mbps speeds automatically and not a boot ROM	

	Graphics	Integrated Graphics Media Accelerator x 4500, support upto 800 MB video memory through DVMT	
	Sound	Integrated 5.1 Channel high definition audio subsystem and inbuilt	
	Printer	HP LaserJet Printer 1200 x 1200 dpi 12 PPM black	
13.	Softwares	<p>d) Pre-loaded Windows 7 Professional operating system or latest with Licensed CD</p> <p>e) MS Office Professional 2013 with media, manual and Licensed CD</p> <p>f) Preloaded Norton Antivirus latest version of 3 years lifetime along</p>	
		Licensed CD	
14.	Auto Dilution and Calibration	In built multi level calibration using single calibration standard. Auto dilution system should be automatic, programmable, should generate various concentration of standards from single standards and sealed calibration conc.	
15.	Filtration Assembly	Compatible filtration assembly complete with pump, 45 mm, 0.22 μ pre size filter papers (500 Nos. i.e. 5 packets),filtration flask tubings	
16.	Additional Items		
	Manufacturer's standard kit	Standard operation kit including all required items, fittings for start up regular operation of instrument	
	Operation and Maintenance Manual	Operation and Maintenance Manual for each unit	
	Application note	Application note for anions and cations analysis in environmental,	
	Methodology package	Comprehensive EPA methodology package software (CD-ROM) for environmental application	
	Service manual	Service manual with set of required tools for each system/unit	
	Spare parts catalogue	Spare parts catalogue	
	Trouble shooting charts	Trouble shooting charts	

		<p>Notwithstanding anything stated above the purchaser reserves the right to assess the capability and capacity of the bidder to perform the contract, should the circumstances warrant such an assessment in the overall interest of the purchaser</p> <p>h) Comprehensive warranty with spares for 3 years from the date of installation of the instrument should be covered.</p>	
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	Operation kit	Operation kit including all required items, tubing, fitting for start up /	
	Spares and consumables	All spares and consumables for two years of operations should be	
17.	Operation & Maintenance Training component	Complimentary (all expenditure inclusive) two-four weeks training to two scientists on operation and maintenance aspect of the instrument at manufacturers facility /Application Laboratory in India.	
18.	General Conditions of Supply	<ul style="list-style-type: none"> a) The instrument and all its sub units should operate on 230 ± 10 volts 50 Hz power supply. b) All the operation and maintenance manuals, circuit diagrams, application notes and applicatio0n softwares should be in English language c) The supplier / manufacturer should . have Indian agent to provide after sales service d) The main unit and all the sub units of the instrument should be serviced by the Indian representative of supplier e) The Bidder should be a manufacturer/authorized representative of a manufacturer, who must have designed, manufactured, tested and supplied two numbers of such equipment similar to the type specified in the past five years, which shall be in successful operation for atleast 2 years as on the date of bid f) The bidder should furnish the information on past supplies and their satisfactory performance. g) Bidders shall invariably furnish documentary evidence (client's certificate – atleast two) in support of the satisfactory operation of the equipment as specified above. 	

Financial Bid Submission Form for Ion chromatograph

Sl No.	Items	Description of items	Quoted unitPrice (Rs.)	Total Qty	Total cost	Other applicable Taxes

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LETTER SUBMITTING TENDER

To

The Regional Director
Central Pollution Control Board
Nisarga Bhawan
7th D Cross, Thimmaiah Road
Shivanahalli
Bengaluru – 560 079

Sir,

With reference to the tender invited by you for the supply of “**Ion chromatograph**” at The Regional Laboratory, Central Pollution Control Board, 'A' block, Nisarga Bhavan, 2nd Floor, 7th D Cross, Thimmaiah Road, Shivanagar, Bengaluru 560079. I/We do hereby offer to supply the item/s at the quoted rates mentioned in the financial bid. I/We have seen the website and read the conditions of tender, specifications and special clauses. I/We agree to supply the item/s in whole within fifteen days as specified in the tender. I/We understand that you are not bound to accept the lowest or any tender that is received by CPCB.

Yours faithfully,

Name of partners of the firm

Name of Bankers

Tenders submitted on