

## भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित सैक्टर 81, नॉलेज सिटी, पी. ओ. मनोली, एस. ए. एस. नगर, मोहाली, पंजाब —140306 INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab PAN NO. - AAAAI1781K TAN NO. PTLI10692D

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CPPP/Institute Website/Newspaper

IISERM(643)16/17Pur

04<sup>th</sup> August 2016

## **TENDER NOTICE**

On the behalf of Director, IISER-Mohali, sealed tenders in **TWO BID SYSTEM** {Technical and Commercial separate, (i)Technical bid envelope containg- Technical write-up, EMD and tender fee (ii) Commercial bid envelope containg price detail. Technical and commercial bid should be sealed in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed} are invited, for purchase of following item along with EMD money by DD /Banker Cheque/FDR/ Bank guarantee for Rs 50,000/- and tender fee of Rs 500/-(non-refundable) through DD in favour of the Registrar, IISER Mohali, payable at Mohali/Chandigarh so as to reach us latest by **25<sup>th</sup> August 2016** before 1 pm and will be opened on the same day at 4pm.

Sr.	Description	Qty
01	Electrochemical Workstation with in-situ Optical studies	01

## **Technical Specifications for Electrochemical Workstation with in-situ optical studies** Quantity: 1, if not mentioned

Sr.	Features	Required specifications
01.	Bi Potentiostat-Galvanostat	Should have options to perform Corrosion, Impedance, Voltammetry,
		Electrochemical stripping, Bulk Electrolysis with Coulometry, Trace
		Metal analysis & Pulse Techniques, Corrosion tafel, fuel cell, AC
		Impedance including Mott Scottky, Battery Charge/Discharge, Deposition
		Studies, Photovoltaic studies, Insitu spectroelectrochemical study,
		RDE/RRDE with Hydrodynamic Modulation Voltammetry (HMV)
		change in voltage w.r.t. ramp of the motor, RDE control and chrono –
		techniques
		Potential scan range: ±10 V +/- 0.02% for both channels
		Measured current range: ± 20 pA to 250 mA +/-0.0015 %, steps of 0.3fA
		Compliance Voltage: ±13 V or better
		Input bias current: < 20 pA
		Scan rate with high speed generator 8000 V/s
		Impedance range 10uHz to 1MHz with simulation
		CV simulation programs Fast data acquisition: 1us sampling
		Electrochemistry software for above mentioned techniques,
		Latest Windows Based Acquisition software also includes power supply
		220V/50Hz, Interface Cable for USB Port, Cell Cable

		Any available software upgradation in ten years has to be done at free of
02.	Datating Ding Diag	Cost.  Potenting Dick system and Floatrades
02.	Rotating Ring Disc Electrode (RRDE) system	Rotating Disk system and Electrodes  RDDE Rotating Disk Electrode Apparatus with motor shoft power
	for Reaction Kinetics	RRDE Rotating Ring Disk Electrode Apparatus with motor shaft power supply and cell with spare inner tubings
		RDE Pt Platinum disk electrode (2)
	Studies (quantity is mentioned in bracket)	RDE GC Glassy carbon electrode (4)
	(prices may be quoted	RRDE Pt.Ring/ Pt Disk Electrode (1)
	separately)	RRDE Pt.Ring/ GC Disk Electrode (1)
03.	Cells and Electrodes	Electrochemical Cell System includes 4 glass cells with one Cell top (1)
03.	(quantity mentioned in	Pt Working Electrode (3)
	bracket)	GC Working Electrode (6)
	(prices may be quoted	Iridium working electrode (1)
	separately)	Cobalt working electrode (1)
	separately)	Cu working electrode (2)
		Reference electrode (Ag/AgCl) (3)
		Non Aqueous reference electrode (Ag/Ag+) (3)
		Calomel Reference Electrode (3)
		Pt Wire Counter Electrode (3)
		Electrode Polishing Kit (2)
		Polishing Pad (2)
		Thermojacketed cell (1)
		Hg/HgSO <sub>4</sub> reference electrode (2)
		Hg/HgO ref electrode (2)
		Reversible H <sub>2</sub> std. electrode (2)
		Pt flag counter electrode (3)
		Au Working electrode (3)
		Ag Working electrode (1)
04.	Spectrometer	Spectrometer 3648 elements for general lab use (fluorescence, emission,
	1	absorbance, transmission, and reflectance) with collection lens is preset to
		cover the 250-1000 nm wavelength range a multi-bandpass order-sorting
		coating: and a 25 um entrance slit. Acquisition software.
05.	Light source for	Combination Deuterium and Tungsten-Halogen Light source with 1,000-
	spectrometer	hour deuterium bulb and 900-hour tungsten-halogen bulb suitable for
		absorption and reflection
06.	In situ spectroscopy–	To monitor the online spectral changes at the surface such as
	Transmission mode	polymerization
		Spectroelectrochemical cell 10mm path with Ag/AgCl reference, Pt
		counter and W.E. ITO and Pt or Au grid electrode
		In situ spectroscopy– Transmission mode includes 2 QP 200-2 UV VIS
		optical fiber, 1cm cuvette sample holder, 1cm Cell with taflon cap 50 no.s
		of ITO Plates 7mm x 1.5mm x 50mm height
07.	Spectrochemical Option –	Dip probe option with 10 mm path length probe for the samples direct
	Dip mode	from test chambers where absorption of solutions are less than 1.5
		10 mm Probe tips (qty: 2 no.s)
08.	In situ Reflection	In situ Reflection hardware with necessary probes for measuring
	hardware	reflectance from the opaque electrodes
	(optional: may be quoted	
0.0	separately)	
09.	Photoelectrochemical	<b>Type 1:</b> Cell with quartz top and 3 quartz joint 14, 10, 10 mm female
	Reactors	socket, temp control circulation provision in outer jacket
	(prices may be quoted	Equivalent glass parts should be optionally quoted
	separately)	<b>Type 2:</b> 20 mm quartz inlet with ITO plate working, reference and

		counter electrode, provision for purging. All std joint airtight
		configurations. Provision for GC sampling
		<b>Type 3</b> : Suitable quartz and glass cell should be quoted separately and
		optionally for inserting the probe from <i>item 10</i> . This is not required if type
		1 and type 2 reactors suffices. The cell should be airtight after insertion of
		the probe.
10.	Non-invasive Oxygen	Non-invasive oxygen measurement should be possible. The standard
	Monitoring Kit with	probe should be usable for measuring oxygen (in Tau, %, ppm, Pa) in
	Patches	aqueous and gas phase. Probe should be complete with LED and detector.
	(prices for Item 10 may be	Measurements should be fluorescent based.
	quoted separately and	Additional probe should be quoted separately for use in non-aqueous
	optionally at the end of the	media.
	main quote)	Additional probe should also be quoted separately for estimating trace
	main quote)	amount of oxygen in gas and liquids.
		All accessories associated with the above mentioned parts, such as joints
		should be quoted.
		Any probe with a sharp tip (or a tip assembly that can be connected to the
		above mentioned probes) should be quoted.
11.	Computer & Printer	Pentium i7 computer with 21" or larger monitors, present configuration,
11.	Computer & Frinter	B/W back to back Printer with book scanner. Online UPS for 0.5 hour or
		more power backup.
10	***	A suitable laptop should be provided for the oxygen monitoring kit.
12.	Warranty	3 Years on the software and the hardware of the Instrument
13.	Installation and commis-	The manufacturer should undertake to install and commission the equip-
	sioning	ment and all attachments accessories and also demonstrate the perfor-
		mance guaranteed as per specifications at site.
		Onsite training should be provided for 2 days or more.
		One set of manuals (hard and soft copies) with all details of parts should
		be supplied.
		Any other accessory required for smooth installation and working of the
		instrument should be quoted.

## **INSTRUCTIONS**

- 1. The Quotation should be addressed to the Assistant Registrar (S&P), IISER Mohali should on the top of the envelope invariably give Reference number with due date and time of submission of quotation. Quotation should be submitted directly by the original manufacturer/supplier, If quotation is submitted by any representative/agent/dealer then they must have to produce a authority certificate of principal party for quotating the price otherwise it will be very difficult at this end to consider such quotation.
- 2. One time importers from China with custom made specifications are highly discouraged.
- 3. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute. Before the deadline for submission of the bid, IISER Mohali reserves the right to modify the bidding document and to extend or not to extend the date of submission. Such amendment/modification will be notified to bidders receiving the bidding document in writing or fax/email and will also be hosted on IIISER Mohali website.
- 4. The rates offered should be FOR Chandigarh/Mohali in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Supplier from outside India should mention the Ex-works/FOB/FCA/CIF/CIP price clearly. Conditional tenders will be summarily rejected

- 5. In case of Ex-godown terms the amount of packaging forwarding freight etc should clearly be indicated by percentage or lump sum amount. Institute has policy **not to make any advance payments** towards any purchase, Letter of credit can be opened if required.
- 6. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY under notification no-51/96 –CUSTOM DATED 23/7/1996 AND DSIR REGISTRATION NO TU/V/RG/-CDE(1062)/2011 DT. 02/09/2011 / EXCISE NOTIFICATION NO. 10/97- CENTRAL EXCISE DT. 01.03.1997
- 7. TAX: This Institute is not exempted from the payment of Sales Tax/Service Tax/VAT. The current rate (i.e. percentage of Sales Tax should be clearly indicated included or excluded) wherever chargeable. Please also provide the copy of PAN card, TIN number, Service tax number, Sales tax number duly self-attested.
- 8. The delivery period should be specifically stated. Earlier delivery will be preferred
- 9. The firms are requested to give detailed description and specifications together with the detailed drawings, printed leaflets and literature of the article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.
- 10. Validity of offer: 90 days. The warranty period after satisfactory installation should be mentioned and firm should replace all manufacturing defect parts/ whole item under warranty without any extra cost including clearance, freight, taxes. Security deposit/ Bank Performance Guarantee for 10 % of the value of supply order as per norms may be sought from firms.
- 11. Late or delayed quotation will not be accepted.
- 12. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved. For any corrigendum and addendum our website may please be checked regularly.
- 13. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

-sd-(Mukesh Kumar) Assistant Registrar (S&P)