

Indian Institute of Technology Kanpur

CENTRE FOR NANOSCIENCES

Tender No: CNS/2017-18/10	Tender date: 20.02.18	Tender Closing Date: 31.03.18
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Centre for Nanosciences, IIT Kanpur invites sealed quotations in two bid system for the purchase of **Multi-channel Electrochemical workstation** with accessories. The instrument must have below mentioned specifications:

Multichannel Potentiostat Galvanostat System for upto 10 potentiostat galvanostat in one single chassis. It should be possible to control all the channels through one PC or upto two PCs. System should have provision to add different modules such as QCM, Bipot, EIS and Multiplexer and additional electrometer for temperature, potential measurement. Each channel should have following specifications. Price for each should be quoted separately.

No of Channels: 6 No.

Electrochemical Workstation Specifications:

Compliance voltage: ± 18 V or better at ± 350 mA

Maximum Output Current: ± 350 mA or better at ± 18 V

Output Voltage Range: ± 10 V

Current Ranges: smallest current range: ± 10 nA to current range 100 mA in nine ranges

Measured current resolution: 30 fA on 10 nA full scale range

Potentiostat Rise/fall Time: 300 ns or lower

Interface: USB interface for connection with PC

Input bias current: < 1 pA

Input Impedance of electrometer: $>100G\Omega$ // 8 pF

Hardware for EIS Measurements: Qty 1

Hardware and software for EIS measurements in potentiostatic and galvanostatic control, over frequency range of 10 μ Hz to 1 MHz. It should be possible to perform EIS measurements over entire frequency range from 10 μ Hz to 1 MHz upto 400 mA current. Frequency range in 10 μ Hz - 1 MHz combination with potentiostat galvanostat. Frequency resolution 0.003%, Input range ± 10 V. Data presentation: Nyquist, Bode, Admittance, Dielectric, Mott-Schottky, Data analysis: Fit and Simulation, Find circle, Element subtraction.

Current Booster: Qty 1

Current booster to enhance the maximum current of the system. Specifications: Max Compliance Voltage: ± 20 Volts, Maximum Output Potential: ± 10 Volts, Maximum Current: ± 10 Amp, Accuracy: $\pm 0.5\%$, Operation Mode: Potentiostatic and Galvanostatic.

Accessories:

It should consist of the following:

Gas inlet and overflow glass tube-6 nos, Pt (2mm) electrode tip of glass-1no, Ag/AgCl reference electrode double junction-6 nos, Pt wire counter electrode-1 no, Polishing set – 1 no

Electrochemical Software:

Software should have facility to record additional signal viz EQCM, bi-potentiostat etc. Import/export ASCII. Ready-to-use Vis & Generic interface for .Net applications should be included. It should have facility to display up to 4 plots simultaneously. The software should support following basic electrochemical measurements: Cyclic Voltammetry, Sampled DC Voltammetry. Tafel Plots, Differential Pulse Voltammetry, Square Wave Voltammetry. Electrochemical methods like Chrono-Amperometry, Chrono-Coulometry & Chrono-Potentiometry.

Computer & Printer:

CPU Intel Core i5, RAM 8 GB RAM, HDD 1 TB, GPU DirectX 9.0c compliant display adapter with 8GB RAM, TFT Monitor 22 inch, 101 Keys Keyboard, Optical Mouse, DVD combo drive, Deskjet printer.

ON Line UPS

Branded ON Line UPS 2 KVA with 30 minutes back up.

Terms & Conditions:

Your quote should mention/include the following:

- Maximum discount if any should be offered and mentioned.
- Quoted price should include the cost for installation, warranty, AMC and required accessories
- Validity of the quote at least for 90 days.
- FOB (indicating port of shipment) and CIF (New Delhi) values should be quoted separately if import is required. For quotes in INR, the price quote should be for delivery at Kanpur.
- The quote should cover insurance for transport up to Kanpur.
- Indian agency commission if applicable (should be certified by the principal if no agency commission is applicable) in case of import.
- Authorization certificate from the principal if you are a local agent.
- Terms and conditions for the payment, including the banker's name of the principal and the account number, if any, for electronic transfer.
- Payments terms: 100% after successful installation and commissioning.
- Technical literature to support your product (in technical bid).
- Users' list with contact address in technical bid.

- Concessional rate of GST (@5%) will be applicable with reference to Notification No. 45/2017- Central Tax (Rate) dated 14/11/2017 for Indian manufactures. We will provide relevant certificate for this purpose. On import items for research purpose presently the GST applicable is 0% (zero).
- Mere compliance is not sufficient; the technical details must be supported by detailed technical datasheets of the offered product(s)
- The Institute reserves the right of accepting and rejecting any quotations without assigning any reason.
- Kindly send technical and financial bid separately in sealed envelopes.

Note: Only principal manufacturers or authorized representatives are requested to send the quote along with proper certificates. The envelope should be marked as "Quote for Multi-Channel Electrochemical Workstation".

Quotation must reach to the following address before 5 PM on March 09, 2018:

Dr. Sri Sivakumar

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Kanpur 208016 (UP), INDIA