

**INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
JADAVPUR, KOLKATA-700032**

Tender Notice No.IACS/HR/IC/ 07/2012-13

Date: 29.06.2012

Sub: Tender for “Electrochemical Workstation with Potentiostat/Galvanostat, Cable set, Basic electrochemical software, Basic plus software package, Universal cell stand & Spectro-Electrochemical cell-1No”.

Sealed tender in two bids system (Technical Bid & Financial bid) is invited from bonafide resourceful and eligible manufacturers/exclusive distributors/vendors for Electrochemical Workstation with Potentiostat/Galvanostat, Cable set, Basic electrochemical software, Basic plus software package, Universal cell stand & Spectro-Electrochemical cell-1No with the following specifications & Accessories. The **Technical Bid** and **Price bid** are to be submitted in two separately sealed envelopes distinctly marked accordingly and both to be put inside another envelope, which should be sealed and super scribed with tender reference no. and due date. Complete tender bids should reach by **July 28, 2012** up to **02.00 PM** in the office of Inorganic Chemistry Department, Indian Association for the Cultivation of Science, Jadavpur, Kolkata – 700032.

The technical bids will be opened first to evaluate technical specifications of the equipment and there after the price bids of only the technically qualified distributor/vendors will be opened.

Technical Bids: The Technical Bids will be opened on **July 28, 2012** at **03.00 PM** at J. C. Bose Meeting Hall in the presence of the technical committee

Technical Bid Evaluation: The Technical Bids will be evaluated in the presence of the representatives of intending bidders who will be able to clarify technical aspects of their bids, if any, required by the Technical Evaluation Team. The date of the technical bid evaluation will be intimated to the bidders at their email addresses.

Opening of price-bid: The Price Bids of the bidders qualifying the technical bid will only be opened, the date of which will be intimated to the short-listed bidders at their email addresses. The rest of the bids will be rejected.

Please note that IACS will not provide any accommodation or expenses to any of the bidders for attending opening of technical bid.

(A) TECHNICAL BID:

The Technical Bid should contain technical specifications and kept in a separate envelope duly super scribed as “**Technical Bid**” on the outer cover of the envelope.

Detailed Specifications & Accessories

- (1) Should consist of Potentiostat/Galvanostat and the following accessories:
 - a) Power module for enhancing compliance voltage up to 85 volts at 1 Amp current.
 - b) Polarographic stand for stripping experiments: Included with mercury electrode for various modes such as DME, SMDE, HMDE and CGME (Potentiostatic control of drop growth), etc.
 - c) Rotating Disk electrode stand with Speed range 50 to 10,000 RPM controlled directly by Potentiostat with 1% accuracy.
 - d) Spectroelectrochemical Quartz Cell with working, counter and reference electrodes.
 - e) Bulk Electrolysis cell with Reticulated Carbon working electrode for coulometry applications.
- (2) The Potentiostat/Galvanostat should be designed for electrochemical research over a broad range of techniques like: Cyclic voltammetry, Linear sweep voltammetry, Controlled potential electrolysis, Chronoamperometry, Chrono coulometry, Chronopotentiometry, Open circuit potential vs. time, Constant potential amperometry, Q vs. $t^{1/2}$ plot (for chrono coulometry), I vs. $t^{1/2}$ plot (for chrono amperometry), Double step chronopotentiometry, Normal pulse voltammetry, Differential pulse voltammetry, Square wave voltammetry, Linear sweep stripping voltammetry, Differential pulse stripping voltammetry, Square wave stripping voltammetry.
- (3) For Cyclic voltammetry and linear sweep voltammetry, the scan rate should be 1 mV/s - 10 V/s with Step height: 100 μ V.
- (4) For Chronocoulometry/ Chronoamperometry/ Double Potential Step Chronopotentiometry, the requisites are: single or double potential step methods with step time 1ms-65sec; the data acquisition frequency for Cottrell plot and Anson plot should be 20 μ s/data point.

- (5) For Potentiostat, the number of channels should be expandable from 1 to 2 channels, the compliance voltage +/- 12Volts should be possible to expand up to +/- 85Volts, the applied potential should be +/- 3.275 Volts with 100 micro volt resolution, the full scale sensitivity for current should be 1nA to 100mA in 9 auto ranges with resolution of 2 femto amp in 20bit; 31 femto ampre in 16bit. The input impedance should be $> 10^{12}$ ohms with <1 pA input bias current at room temperature.
- (6) There should be automatic Input output controls: automatic purge gas control, stir speed control and polarograph knock control for the cell port where as the trigger control for Spectroelectrochemistry should be of trigger out for start/end for spectroelectrochemistry measurement and trigger in for start run from Spectrophotometer.

(B) FINANCIAL BID:

- a) The financial bid should be super scribed as “**Finance Bid**” on the outer cover of the envelope.
- b) **Validity of quotation:** Minimum 4 months

(C) GENERAL INSTRUCTIONS:

Terms & Conditions:

Payment: 100% against delivery and successful installation.

Warranty: Minimum 3 years & additional two years of comprehensive warranty from the date of successful installation. Warranty shall include free maintenance of the whole equipment supplied including free replacement of parts. The defects, if any, shall be attended to on immediate basis but in no case any defect should prolong for more than 24 hours. The comprehensive warranty includes onsite warranty with parts.

The defects, if any, during the guarantee/warranty period are to be rectified free of charge by arranging free replacement wherever necessary. This includes cost, insurance, freight, and custom duty, local taxes if any should be borne by the beneficiary or his agent. A clear confirmation should be given for this item.

Installation/Demonstration/Application Training at site: Free of cost by the supplier.

Service facility: Supplier should mention their details of service setup and Manpower in Kolkata who are responsible for after sales support. Response time should be within 24 hours

Note:

- The tender submitted shall remain valid at least for four months from the date of opening the tender. Validity beyond four months from the date of opening of the tender shall be by mutual consent.
- The tender should accompany a compliance chart.
- The rate should be inclusive of all taxes, transportation etc. Nothing extra will be paid in addition to the quoted rate.
- The model number, make, and a printed literature of the product should be submitted positively.
- Proposed delivery schedule should be mentioned clearly.
- Manufacturers/exclusive distributors/vendors should have history of supplying this type of instrument to this or other Scientific Organizations.
- Number of installations with a list of customers (with proper documents) of such equipment in India in last five years should be mentioned.
- Authorized Dealership Certificate is must in case of principal manufacturing company is not quoting directly.
- Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
- The Institute authority does not bind itself to accept the lowest.
- Conditional/incomplete documentation shall be summarily rejected.
- The Institute reserves the right to reject any or all of the tenders received without assigning any reason thereof.

For any clarification regarding technical specifications, etc. please send your queries to Dr. Harapriya Rath, <ichr@iacs.res.in>

R E G I S T R A R

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