INDIAN INSTITUTE OF TECHNOLOGY KANPUR
Department of Chemical Engineering

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Enquiry No.: IITK/CHE/R. Pala/DST/CHE/NC/2013/01
Enquiry Date: January 29, 2013
Closing Date: Febraury 6, 2013
Homepage: http://home.iitk.ac.in/~rpala/

Sealed quotation(s) in Indian Rupees or USD with all technical details so as to reach latest by 5:00 PM on Febraury 6, 2013 are invited for the supply of following items.

PC Controlled MultiChannel Potentiostat Galvanostat

Multichannel System for upto 12 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.

Compliance voltage	: ± 10V or better
Current	: ±100mA or better
Current Ranges	: 10 nA to 10 mA or better
Applied Potential	: ±10V or better
Potentiostat Gain bandwidth	: 1 MHz or better
Bandwidth of electrometer	: > 4 MHz or better
Input Bias current	: < 1 pA or better
Current Rages	: ± 10 nA to 10 mA in several ranges
Resolution of measured potential	: 3 μ V or Better
Resolution of measured current	: 0.0003% of current range
Resolution at 10 nA range	: 30 fA or better
Input impedance of electrometer	: > 100 GOhm // 8 pF
Potentiostat rise fall time	: < 300 nS or better
D/A Converter	: Three channel, 16 bit
IR Compensation	: Yes
Electrode Connection	: 4 (WE, S, CE and RE)
Interface to PC	: USB

EIS Module:Frequency Range of FRA 10μHz to 30 MHz
A.C. Amplitude 0.25 mV to 300 mV for potentiostatic & 0.003 to 0.3 times the current range
Module for second working on second working electrode
Voltage Range: ± 10Volts
Current Range 40 mA in different ranges

Software:
The Software to be provided with the potentiostat / galvanostat should be comprehensive, fully windows based with three dimensional view of graphics and analysis software. Software should record current, voltage and time for cyclic and linear sweep voltammetric measurement. It should be possible to record current, voltage and time data in tabular format for each measuring point in volt-ammogram. Software should be capable of supporting a wide variety of electrochemical techniques as mentioned below.

- Cyclic & Linear Sweep Voltammetry
- Linear Polarization
- Differential Pulse, Sampled DC & Square Wave Voltammetry
- Chrono - amperometry and chrono potentiometry ($\Delta t >$ 1 ms)
- Standard procedures given above.
- Tutorials to help the user to familiarize with software
- Programming of different electrochemical methods and optional accessories

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- Software Development Kit to control the PGStat using Labview™ Software.
- Comprehensive database structure & powerful data analysis tool.
- Inbuilt electrochemical spread sheet
- User programmable formulae to new plots.
- Powerful graphic engine with useful features such as individual Axis scaling, overlays, multiple Y axes, plot addition, zooming and rotation.
- Each plot can be saved as an image file so as to use directly in paper or presentation.
- The software should have capability to display four plots simultaneously

System should be supplied with Basic Electrochemical cell Set up along with Cell vessel with lid, Gas purging tube, 2 mm diameter Au & Pt Disc Working electrode one each, Ag/AgCl Reference electrode, Pt wire counter electrode along with suitable PC for its operation.

Terms & Conditions:

(iii) Prices (FOB/ High Sea Sales) should include delivery upto nearest airport.
(ii) Clearly state the CIF charges to IIT Kanpur and other taxes as applicable.
(iii) Warranty should at least be for 1-3 years after installation.
(iv) Validity of quotation should be at least for 90 days.
(iv) The delivery time should be clearly mentioned. Shorter delivery time may be given a preference.
(v) Technical specifications along with the extent of compliance should be in a separate envelope with proper labels on the envelopes.
(vi) The delivery period should be specifically stated.

Kindly mention the enquiry number on the sealed envelope carrying the quotation.

The quotation/s may be submitted as per the attached format. Kindly send the sealed quotation(s) to the following address:

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Thank You

(Raj Pala)