INSTITUTE OF NANO SCIENCE AND TECHNOLOGY, MOHALI
(An autonomous Research Institute of Department of Science and Technology, Government of India)
Habitat Centre, Sec-64, Phase X, Mohali – 160062, PUNJAB
Phone No: 0172 – 2210073/74/75, Fax No: 0172 – 2210074
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Ref No. INST/12(272)/2018-Pur Date:28/05/2019

CORRIGENDUM

Reference to NIT no. INST/12(272)/2018-Pur published in national newspapers on 02/05/2019 for purchase of equipment: **Electrochemical Workstation.** Below mentioned technical points may be read and corrected as per following:-

Present Tender Specifications	**Modified Specifications after pre-bid meeting**
Multichannel System for up to 12 potentiostat /galvanostat or more. System can be supplied in 1 or 2 chasis Each channel should have following specifications. Price for each should be quoted separately. No of Channels required: 3 No **Electrochemical Workstation Specifications:** Compliance voltage: ± 12 V or better at ± 400 mA or more Maximum Output Current: ± 400 mA or better at ± 12 V or more Output Voltage Range: ± 10 V or more Current Ranges: smallest current range: ± 10 nA to current range 100 mA in multiple ranges or more Potentiostat Rise/fall Time: 500 ns or better Interface: USB interface for connection with PC The system should be upgradeable with accessories 10 A current booster, Electrochemical Quartz Crystal Microbalance, Spectrophotometer etc. **Hardware for EIS measurements: Qty 1** Hardware and software for EIS measurements in potentiostatic and galvanostatic control, over frequency range of 10 µHz to 1 MHz. It should be possible to perform EIS measurements over entire frequency range from 10 µHz to 1 MHz upto 400 mA currents. Data presentation: Nyquist, Bode, Admittance, Dielectric, Mott-Schottky, Data analysis: Fit and Simulation, Find circle, Element subtraction **Hardware for BIPOTENTIOSTATIC measure ments: Qty 1 no .**	Multichannel System for up to 10 potentiostat /galvanostat or more. Price for each should be quoted separately for each channel. No of Channels required: 3 No **Electrochemical Workstation Specifications:** Compliance voltage: ± 12 V or better at ± 400 mA or more Maximum Output Current: ± 400 mA or better at ± 12 V or more Output Voltage Range: ± 10 V or more Current Ranges: smallest current range: ± 10 nA to current range 100 mA in multiple ranges or more Potentiostat Rise/fall Time: 500 ns or better Interface: USB interface for connection with PC The system should be upgradeable with accessories 10 A current booster, Electrochemical Quartz Crystal Microbalance, Spectrophotometer etc. **Hardware for EIS measurements: Qty 1** Hardware and software for EIS measurements in potentiostatic and galvanostatic control, over frequency range of 10 µHz to 1 MHz. It should be possible to perform EIS measurements over entire frequency range from 10 µHz to 1 MHz upto 400 mA currents. Data presentation: Nyquist, Bode, Admittance, Dielectric, Mott-Schottky, Data analysis: Fit and Simulation, Find circle, Element subtraction **Hardware for BIPOTENTIOSTATIC measurem ents: Qty 1 no .**

Module for conversion of the system into a two channel potentiostat with two working electrode s sharing the same AE & RE	Module for conversion of the system into a two c hannel potentiostat with two working electrodes sharing the same AE & RE
Electrochemistry Cell: It should consist of the following: 10 mL to 80 ml Glass cell 2 no , 300 ml 1 no ,disc working electrodes with active area diameter 3 mm of GC 2no, Pt wire Counter electrode 2 no, Ag/AgCl reference electrode double junction type for use in Aqueous and Non-Aqueous media 2 no ,Polishing kit and gas purging accessories 2 no	**Electrochemistry Cell:** It should consist of the following: 10 mL to 80 ml Glass cell 2 no , 300 ml 1 no ,disc working electrodes with active area diameter 3 mm of GC 2no, Pt wire Counter electrode 2 no, Ag/AgCl reference electrode double junction type for use in Aqueous and Non-Aqueous media 2 no ,Polishing kit and gas purging accessories 2 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. Taffel Plots, Differential Pulse Voltammetry, Square Wave Voltammetry. Electrochemical methods like Chrono-Amperometry, Chrono-Coulometry & Chrono-Potentiometry. The software upgradation should be free of cost	**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. Taffel Plots, Differential Pulse Voltammetry, Square Wave Voltammetry. Electrochemical methods like Chrono-Amperometry, Chrono-Coulometry & Chrono-Potentiometry. The software upgradation should be free of cost
Rotating Ring Disc Electrode for Bipotentiost atic Hydrodynamic Measurements: Specifications: Speed control Manual and softw are, Motor speed range 150 - 9,000 RPM, Man ual speed setting 150 - 9,000 RPM RPM in 1 RPM steps, Acceleration/deceleration 3,800 RPM/s,Maximu m current 450 mA, Two Sealed Hg pool contacts for Ring and Disc .RRDE Tips: GC Disc and Pt Ring 1no and 1no in optional item	**Rotating Ring Disc Electrode for Bipotentiosta tic Hydrodynamic Measurements:** Specifications: Speed control Manual and softw are, Motor speed range 150 - 8,000 RPM, Manu al speed setting 150 - 8,000 RPM RPM in 1 RPM steps, Acceleration/deceleration 3,800 RPM/s,Maximu m current 450 mA, Two Sealed Hg pool contacts for Ring and Disc or similar technology .RRDE Tips: GC Disc and Pt Ring 1no and 1no in optional item
Computer & Printer: Compatible branded PC with i7, 16 GB RAM configuration, 27 inch 4K Monitor, Printer, 2 KVA Online UPS with one hour back up should be quoted.	**Computer & Printer:** Compatible branded PC with i7, 16 GB RAM configuration, 27 inch 4K Monitor, Printer, 2 KVA Online UPS with one hour back up should be quoted.

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Warranty: 3 years from the date of installation of equipment. **Optional:** 1. Any other relevant accessories such as RRDE Tips: GC Disc and Pt Ring should be quoted separately.	**Warranty**: 3 years from the date of installation of equipment. **Optional:** 1. Any other relevant accessories such as RRDE Tips: GC Disc and Pt Ring should be quoted separately.

Note: The supplier must have 15 or more installations in reputed government Organisations.

The last date for receipt of tender has been extended upto **08/07/2019 till 2:00PM** which will be opened on the same date at **3:00PM** at INST, Mohali. The other details of the tender shall remain unchanged.

Sd/-
C.F.A.O