



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH
PUNE

CLARIFICATION ON TENDER NUMBER - IISER-PUR-1927-16

ITEM DESCRIPTION- PROCUREMENT OF SCANNING ELECTROCHEMICAL
MIRCOSCOPY (SECM) SET UP

Refer our Press Tender Notice No.IISER/S&P/02/17 dated 12.4.2017 for procurement of Scanning Electrochemical Microscopy (SECM) Set Up. Tender Reference Number - IISER-PUR-1927-16.

Pre-Bid meeting was held on April 21st , 2017 at 3.30 PM and minutes of meeting is as under.

At the outset, the Chairman welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter requested Assistant Registrar (S&P) to brief the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in Annexure -II

The representatives present were satisfied with the replies given and it was informed that the corrections / additons / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website [www.iiserpune.ac .in](http://www.iiserpune.ac.in) will remain unchanged. No more correspondence in this regard will be entertained

The meeting ended with vote of thanks to the Chair

21.4.2017

Sd/-
Assistant Registrar (S&P)



IISER PUNE

**PRE-BID CONFERENCE FOR PROCUREMENT OF SCANNING ELECTROCHEMICAL MIRCOSCOPY
(SECM) SET UP**

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-1927-16

DATE : 21.4.17

S.No	Query/Clarification Sought	Clarification / Amendment
1	<p>Chapter 4; Page 18</p> <p>LEIS and upgradation to SVP and SKP</p>	<p>Chapter 4; Page 18</p> <p>System should have capability for LEIS or AC SECM with suitable cell and all the electrodes, substrates and cables for measurements. Preferably the system should be upgradable to SVP and SKP</p>
2	<p>Chapter 4; Page 18</p> <p>Carbon fibre ultra microelectrodes</p>	<p>Chapter 4; Page 18</p> <p>The size of carbon fibre UME should be either 7.5 or 10 micron (10 numbers).</p>

3	<p>Chapter 4; Page 18</p> <p>Travel distance</p>	<p>Chapter 4; Page 18</p> <p>Travel distance of 50 mm x 50 mm x 50 mm (or better), X, Y and Z axes with Piezo positioner and closed loop control</p>
4	<p>Chapter 4; Page 18</p> <p>Probes and Cell kits</p>	<p>Chapter 4; Page 18</p> <p>Necessary SECM (all type of UME), LEIS or AC SECM Probes, constant distance probes for contact mode technique (20 micron size, 1 number and 2 numbers should be quoted as optional) and compatible low volume cell system for SECM as well as LEIS (or AC-SECM) (5-10 mL, 2 numbers, 1 number should be quoted as optional) with necessary counter (3 each) and reference electrodes (3 each) for each cell. The probes for SECM and LEIS or AC-SECM should be compatible with the probe holder supplied.</p> <p>LEIS or AC SECM cell should be provided with all the electrodes, electrochemical cell, standard substrates and cables.</p> <p>Electrochemical cell for SECM and LEIS or ACSECM should have provision to work with flat sheet, pellets as well as rod type samples.</p> <p>SECM and LEIS (or AC-SECM) electrochemical cell should be equipped to study any types of end user samples.</p> <p>Complete video camera assembly should be included in the package. Complete with operational manuals, cables, cell kit, polishing kit and standard sample substrates (Carbon, Au, Pt, ITO etc) for SECM as well as LEIS (separately).</p>
5	<p>Chapter 4; Page 18</p> <p>25μm probes for SECM, Au and Pt</p>	<p>Chapter 4; Page 18</p> <p>6 numbers should be quoted. 4 numbers should be quoted as optional</p>

6	<p>Chapter 4; Page 19</p> <p>Bipot. Specifications</p> <p>Scan rate Data acquisition speed Higher Current, potential rise time and input impedance</p>	<p>Chapter 4; Page 19</p> <p>1000V/s or better (Scan rate: 1 μV/s to > 1000 V/s or better.) 300 KSamples/s or better Upper current range should be \pm300mA or better. Potential rise should be 300-800 ns or better. Input impedance should be 10^{12} Ohms or better</p>
7	<p>Chapter 4; Page 19</p> <p>Specification of EIS hardware Signal types</p>	<p>Chapter 4; Page 19</p> <p>Single sine and multi sine. Both channels should have EIS capability</p>
8	<p>Chapter 4; Page 20</p> <p>Accessories</p>	<p>Chapter 4; Page 20</p> <p>All the electrodes (except screen printed electrodes) should be 4 numbers. In each sets of electrodes (except screen printed electrodes), 2 numbers should be quoted as optional</p>
9	<p>Chapter 4; Page 21</p> <p>ITO electrodes for spectroelectrochemistry</p>	<p>Chapter 4; Page 21</p> <p>10 mm (W) \times 30 mm (L) \times 0.5 mm (T). Surface resistivity should be less than 15 Ohms/Sq.</p>
10	<p>Chapter 4; Pages 20 and 21</p> <p>EQCM Resolution: 0.1 Hz Gate Time: Variable (0.1 s, 1.0 s, 10.0 s) Frequency Range: 1 MHz-10 MHz (resolution: 0.1 Hz) Resonant Resistance Range: 10ohm -16 k ohm Resolution: 0.1 ohm Simultaneous monitoring of changes in the resonances frequencies (ΔF) and energy dissipation parameters (ΔD) should be possible Software should have the option to fit using Sauerbrey and Voight model</p>	<p>Chapter 4; Page 20 and 21</p> <p>Resolution: 0.1 Hz or better Gate Time: Variable (0.1 s, 1.0 s, 10.0 s or better) Frequency Range: 5 MHz or better Resonant Resistance Range: 10ohm -16 k ohm or better Resolution: 0.1 ohm or better Simultaneous monitoring of changes in the resonances frequencies (ΔF) preferably with energy dissipation parameters (ΔD) should be possible Software should have the option to fit using Sauerbrey and Voight model</p>

	<p>Chapter 4; Page 21</p> <p>Frequency Range: 30MHz or better Resolution:0.01Hz Resonance Resistance: Range 1 Ohm to 10 k Ohm with Resolution of 0.01 Ohm or better. EQCM cell preferably Well Cell along with compatible Reference & Counter Electrodes - 1 No Gold Resonators 25 Nos</p>	<p>Chapter 4; Page 21</p> <p>This is eliminated as is already repeated above</p>
11	<p>Chapter 4; Pages 21</p> <p>Necessary accessories for QCM Dip Cell Resonator Holder and cell along with all electrodes Well Cell Resonator Holder (0.750mL) along with all electrodes Flow Cell - (0.090mL) along with all electrodes EQCM crystals</p>	<p>Chapter 4; Page 21</p> <p>Dip Cell Resonator Holder and cell along with all electrodes, cables and tubes Well Cell Resonator Holder (0.750mL or better) along with all electrodes with all the electrodes cables and tubes Flow Cell - (0.090mL or better) along with all electrodes, cables and tubes All crystals should be double sided (50 numbers each). If ITO or carbon resonators are not available it should be replaced by equal quantities of Au crystals</p>
12	<p>Chapter 4; Page 21</p> <p>Cell kit</p>	<p>Chapter 4; Page 21</p> <p>Cell kit should have attachment to connect QCM crystals to the frequency generator and the frequency generator with the electrochemical system. QCM should have provision to integrate with Electrochemical system to work in EQCM mode</p>
13	<p>Chapter 4; Page 21</p> <p>Optional accessories: Spectroelectro chemistry</p>	<p>Chapter 4; Page 21</p> <p>Wavelength range: 200 to 2500 nm</p>



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(SECM) SET UP**

COMMERCIAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-1927-16

DATE : 21.4.17

S.No	Query/Clarification Sought	Clarification / Amendment
	-----NIL-----	-----NIL-----