

Recommendation of TSC on "Prebid meeting held on 18-10-2024"

A Prebid meeting was scheduled on 18-10-2024, 3.00 PM onwards, the following party has participated for the Prebid meeting held in hybrid mode offline/online at CSIR-AMPRI, Bhopal.

- (i) Mr. Abhishek Kumar Tiwari from M/s Thermo Fisher Scientific.
- (ii) Mr. Amit Prashar from M/s Jeol India Pvt. Ltd.
- (iii) Dr Rajgopal and Mr. Jayraj Rane from LabIndia Instruments Pvt. Ltd. (representing TESCAN, Czech Republic)

After detailed technical discussion and email from the above-mentioned firms (annexures 1 to 3), the following changes in the technical specification as well as in the terms and conditions in the tender documents are requested.

Sr. No	Tendered specification	Revised specification	Reason for revision
1	Resolution ≤ 0.9 nm at 15 kV ≤ 1.3 nm at 1 kV	Resolution ≤ 0.9 nm at 15 kV or ≤ 0.7 nm at 20 kV ≤ 1.3 nm at 1 kV Note: These resolution numbers must be achieved on site without any condition or additional requirement.	To enhance the tender competition, change in the specifications do not affect end use requirement of product.
4	Probe current Range: ≤ 5 pA to 100 nA or higher	Probe current Range: ≤ 5 pA to 250 nA or higher	Request from all three companies viz. M/s Thermo Fisher, M/s Zeol India Pvt. Ltd. and M/s Labindia, change in the specifications do not affect end use requirement of product.
7	Electron Optics: Suitable condenser lens with automatic compensation with focus on interest during spot size change (zoom type) Objective lens with selectable objective lens aperture. Beam Deceleration / Beam Booster/ Gentle beam technology or equivalent	Electron Optics: Suitable condenser lens with automatic compensation with focus on interest during spot size change (zoom type)/two condenser lens Objective lens with selectable/electronic objective lens aperture.	To enhance the tender competition, change in the specifications do not affect end use requirement of product.

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	<p>technology for higher resolution imaging at low kV.</p> <p>Optics should have electromagnetic/electrostatic lens system or equivalent technology for magnetic samples to achieve best resolution for shorter working distance.</p> <p>It should be supported by printed/soft brochure/documents.</p> <p>The Objective lens should be a combination or mix of both electrostatic and electromagnetic components for ultra-high-resolution imaging with beam acceleration and deceleration within the lens to reduce aberration and improve probe diameter. The lenses must be water cooled and apertures to be motorized.</p>	<p>Beam Deceleration / Gentle beam technology or equivalent technology for higher resolution imaging at low kV.</p> <p>Optics should have electromagnetic /electrostatic lens system or equivalent technology for magnetic samples to achieve best resolution for shorter working distance.</p> <p>It should be supported by printed/soft brochure/documents.</p> <p>The Objective lens should be a combination or mix of both electrostatic and electromagnetic components for ultra-high-resolution imaging with beam acceleration and deceleration within the lens to reduce aberration and improve probe diameter. The lenses must be water cooled and apertures to be motorized/manual.</p>	
14	<p>Detector: Secondary electron detector of latest technology or equivalent to acquire high resolution images</p> <p>Back scatter detector capable of good contrast imaging</p> <p>Specimen current monitor with faraday cup to measure the probe current</p>	<p>Detector: Secondary electron detector of latest technology or equivalent to acquire high resolution images</p> <p>Back scatter detector capable of good contrast imaging</p> <p>Dedicated in-column/in-lens SE and BSE detector</p> <p>Specimen current monitor with faraday cup to measure the probe current</p>	<p>As per suggestions from all three companies participated in pre-bid, change in the specifications do not affect end use requirement of product.</p>
15	<p>Vacuum System: Ultra clean dry, fully automatic completely fail safe, vacuum system</p>	<p>Vacuum System: Ultra clean dry, fully automatic completely fail safe, vacuum system</p>	<p>As per request from M/s Thermo Fisher, change in the specifications</p>

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	<p>comprising of ion pump, turbo molecular pump (TMP) and rotary pump etc.</p> <p>High vacuum system with fully automatic/ manual over ride pressure regulation</p> <p>Gun column vacuum of the order of 10^{-7} Pa or better</p> <p>Chamber vacuum of order of 10^{-5} Pa or better</p> <p>The vacuum pump time should not be more than 10-15 minutes to achieve high vacuum in column and chamber of the instrument.</p>	<p>comprising of ion pump, turbo molecular pump (TMP) and rotary pump/dry scroll pump etc.</p> <p>High vacuum system with fully automatic/ manual over ride pressure regulation</p> <p>Gun column vacuum of the order of 10^{-6} Pa or better</p> <p>Chamber vacuum of order of 10^{-5} Pa or better</p> <p>The vacuum pump time should not be more than 10-15 minutes to achieve high vacuum in column and chamber of the instrument.</p>	<p>do not affect end use requirement of product.</p>
<p>18</p>	<p>Display system, Operating system, Computer and Printer: Three branded desktop computers with three 30 inch or higher monitors.</p> <p>First computer for SEM, second for EDS and third for data processing. The third computer should be interfaced with first and second computer to avoid taking of data directly from SEM and EDS computers. So the data will be taken from third computer either through CD/DVD or pen drive.</p> <p>Specifications: Intel i7 Core processor or better version, RAM \geq 32 GB, SSD: 1 TB and HDD memory \geq 3 TB, CD/DVD writer, more than 10 USB ports in front and back of desktop, Mouse,</p>	<p>Display system, Operating system, Computer and Printer: Three branded desktop computers with three 30 inch or higher monitors of resolution QHD or better</p> <p>First computer for SEM, second for EDS and third for data processing. The third computer should be interfaced with first and second computer to avoid taking of data directly from SEM and EDS computers. So, the data will be taken from third computer either through CD/DVD or pen drive.</p> <p>Specifications: Intel i7 Core processor or better version, RAM \geq 32 GB, SSD: 1 TB and HDD memory \geq 3 TB, CD/DVD writer, more than 10 USB ports in front and back of desktop, Mouse,</p>	<p>To obtain high-resolution monitors for better quality pictures, change in the specifications do not affect end use requirement of product.</p>

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	<p>Keyboard, etc.</p> <p>Color laser printer</p> <p>Windows based latest operating system.</p> <p>Latest MS Office software suite with perpetual license.</p> <p>To provide continuous upgradation of operating system and all software for at least 10 years</p>	<p>Keyboard, etc.</p> <p>Color laser printer</p> <p>Windows based latest operating system.</p> <p>Latest MS Office software suite with perpetual license.</p> <p>To provide continuous upgradation of operating system and all software for at least 10 years</p>	
21	<p>Standard Reference Materials (SRM) for SEM: OEM supplied/certified standard reference materials for magnification calibration of SEM instruments for the magnification range 50 X to 1,00,000 X or higher (10 micrometer to 100 nm or better spacing standard)</p>	<p>Standard Reference Materials (SRM) for SEM: Reference materials for magnification calibration of SEM is required</p>	<p>SRM is required for wide range magnification calibration of SEM, change in the specifications do not affect end use requirement of product.</p>
25	<p>Sputter Coater: Sputter system with suitable power supply for gold, gold-palladium alloy. The system should have combined/separated carbon coating feasibility.</p> <p>Rotary pump with pressure 10^{-2} mbar or lower for sputter coater of SEM with pressure gauges.</p> <p>Two Standard sputtering Au/Pd targets of 0.5 mm thickness with purity at least 99.9% (2 Nos.)</p> <p>Chamber diameter not less than 90 mm</p>	<p>Sputter Coater: Sputter system with suitable power supply for gold, gold-palladium alloy. The system should have combined/separated carbon coating feasibility.</p> <p>Rotary pump/dry scroll pump with pressure 10^{-2} mbar or lower for sputter coater of SEM with pressure gauges.</p> <p>Two Standard sputtering Au/Pd targets of 0.5 mm thickness with purity at least 99.9% (2 Nos.)</p> <p>Chamber diameter not less than 90 mm</p>	<p>As per request from Thermo Fisher Scientific, change in the specifications do not affect end use requirement of product.</p>
33	<p>Pre-installation: Engineer must visit to</p>	<p>Pre-installation: Engineer must visit to</p>	<p>To strengthen the specifications,</p>

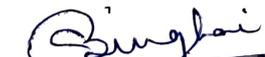
	<p>physically inspect the location for the installation of the system after issuing of the PO.</p> <p>Engineer must check the site for stray magnetic field, ground vibration, and quality of air (humidity), water and electricity, and so on.</p>	<p>physically inspect the location for the installation of the system before/after issuing of the PO.</p> <p>Engineer must check the site for stray magnetic field, ground vibration, and quality of air (humidity), water and electricity, and so on.</p> <p>The quoted resolutions must be achieved on-site without any condition or additional requirement.</p>	<p>change in the specifications do not affect end use requirement of product.</p>
37	<p>Qualifying criteria: The participated firm must have supplied FESEM to at-least three Government of India institutes/organizations, IITs, or NITs, central universities, etc in the last 5 years. PO to be attached.</p>	<p>Qualifying criteria: The participated firm must have supplied FESEM to at-least three Government of India institutes/organizations, IITs, or NITs, central universities, etc in the last 6 years. PO to be attached.</p>	<p>To accommodate more and more companies for heavy competition, change in the specifications do not affect end use requirement of product.</p>

As per the above representation, from all three firms viz. M/s Thermo Fisher Scientific, M/s Jeol India Pvt. Ltd and M/s LabIndia Instruments Pvt. Ltd. (representing TESCAN), and to strengthen the specifications and to enhance the competition the above modifications in the tender is requested.

The tender submission date may be extended for one more week from the current last date of tender submission.

We shall abide by the Code of Integrity and Conflict of Interest for Public Procurement as per para 3.2.1 of CSIR Manual 2019.


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18/10/2024