



Mahatma Gandhi University, Kerala

Tender No: SCS/ReTENDER/POM/2020

Dated: 17.03.2020

NOTICE INVITING TENDER

(Tender No: SCS/ReTENDER/POM/2020)

**The Registrar, Mahatma Gandhi University, Kottayam** invites online bid (technical and financial bid) for Supply & Installation of the Scientific Equipment- **Polarizing Optical Microscope** from reputed firms. The period of the tender is 180 days from the date of tender.

1	Name of the scientific equipment	Polarizing Optical Microscope
2	Earnest money deposit (EMD)	Rs. 30,000/-
3	Tender submission fee	Rs. 4500/- + GST
4	Period of supply and installation	Within 15 days
5	Mode of submission of Bid	Online
6	Tender Documents	Can be downloaded from the website <a href="http://www.etenders.kerala.gov.in">www.etenders.kerala.gov.in</a>
7	Last date and Time of submission of tender by online	24/03/2020, 4 pm
8	Date and time of opening of technical bid	26/03/2020, 10.30am

General tender documents and tender schedule can be downloaded in A<sub>4</sub> plain size paper free of cost from the website [www.etenders.kerala.gov.in](http://www.etenders.kerala.gov.in).

Documents to be submitted along with bid through online

Sl.No	Through online
1	Scanned copy of valid registration certificate/dealership certificate
2	Scanned copy of duly filled e-payment form
3	Scanned copy of other certificates required, if any, for tender acceptance
4	Scanned Copy of duly filled preliminary Agreement in stamp paper of Rs.200/-
5	BOQ

## Special Conditions

1. Onsite training has to be arranged by the vendor. Training should include operation, software applications, analysis, handling and maintenance of system.
2. List of your customers using the instrument with the above mentioned specifications should be given.
3. Laboratory floor space, electrical power requirements, earthing, room temperature/ humidity requirements etc. should be mentioned appropriately.
4. Complete set of service and operation manuals for diagnosis, trouble shooting, maintenance and electronic circuitry (soft copies).
5. The Delivery Schedule, Payment Terms & Warranty/Guarantee etc must be clearly indicated in the technical bid.
6. All the clearance of the consignment should be carried out by the bidder. Institute will provide all the necessary documents for the same. The consignment should be delivered to the laboratory by the bidder.

The bids shall be opened at the date and time specified. Further details can be had from the office:  
**The Director, School of Chemical Sciences, Mahatma Gandhi University, Kottayam, Kerala-686560** on all working days during working hours. **Ph: 0481-2731036 Email: [office.scs@gmail.com](mailto:office.scs@gmail.com)**. The bidders are advised to submit their bid well in advance to avoid any kind of network issues.

The undersigned reserves the right to reject any or all the tender without assigning any reason whatsoever.

**Registrar**



Mahatma Gandhi University, Kerala

**Supply & Installation of the Scientific Equipment Polarizing optical microscope**

**SPECIFICATIONS**

*Qty- 1 No:*

1	Microscope	<p>1. Microscope stand - Z-drive man., with fine drive knob and fine drive disk, flat with scala, changeable - Light Control man. with RS 232 interface - reflected-light illumination with shutter and diffusion disk - stop slider with centerable luminous-field diaphragm - integrated 12V DC 100W power unit, - stabilized, 100V...240V AC/50...60Hz/ 168VA - country-specific line cable and RS 232 cable</p> <p>2. Position objective nosepiece, HD DIC M27 cod.</p> <p>3. Binocular phototube 15°/25 (100:0/0:100), upright image</p> <p>4. Reflector module brightfield ACR P&amp;C for reflected light</p> <p>5. Reflector module darkfield ACR P&amp;C for reflected light</p> <p>6. Compensator mount 6x20 with DF stop, Double filter wheel. discrete. Man. 2x4 positions each to accept neutral-density filter set and dia. 25 mm color filters. For use in transmitted-light and reflected-light equipments mot. and man. Neutral-density filter set for reflected light. d=25 mm consisting of 8 neutral-density filters with 50%, 2x 25%. 12%. 6% and 3x1.5% transmission. For integration in filter wheels. discrete. man. or mot.</p>
2	Heating/Freezing Stage	<p>1. Temperature range -196°C to 420°C - Sample holder for standard microscope slides 76x 26 mm and 15x15 mm travel range - Max. size for arbitrary samples 53.5x43 mm - Stage body size - 160x80x24 mm - Gas tight chamber for atmospheric control - Swing out lid for easy sample loading - Glass window 22 mm diameter; 0.17 mm thick - Temperature stability &amp; accuracy &lt; 0.1°C - Objective minimum working distance 6 mm - Condenser min. working distance 13.2 mm Consisting of: - LTS420 stage with accessories - Tubes, connection cables ....</p> <p>2. Controlled heating rates of 0.01°C to 50°C/min. - Controlled cooling rates of 0.01°C to 50°C/min. (max.30°C/min via computer control) - LinkPad touch screen display - Up to 32 ramps in one programmable profile - Hold time 0 - 9999 mins</p>

3.	Water Circulation Pump	Water circulation pump 220V; 20VA - Tubes, integrated power cord with Euro plug
4.	Camera	High Performance Digital Colour Camera 2448x2048px with USB 3 i/f 1 LINK Module for extended measurements 1 Adapter plate for Fixing with Axio Imager Microscope
5.	Cooling System	Operates using un-pressurized liquid nitrogen - For LTS Heating/Freezing Stage - Up to 32 different pumping speeds - Stage cooling down to -196°C Consisting of: - LTS-LNP96 automatic cooling pump 220V; 2A - Dewar Flask (2 Litres) - Connection cable to LTS, country specific power cord
6.	Software	<ol style="list-style-type: none"> <li>1. The software must include a single point spectral data preview that dynamically displays the real-time effect of parameter adjustments to optimize data collection using visual feedback.</li> <li>2. The location on the sample at which chemical data is collected must be selectable in real-time through a single mouse click.</li> <li>3. Software system must allow chemical image definition, parameter setting, and data collection from a single simple interface window in case of motorized stage.</li> <li>4. System must be able to visually identify particles or region of interest from optical image and automatically define Raman data collection for those regions.</li> </ol>
7.	Accessories	<ol style="list-style-type: none"> <li>1. Branded computer with i5 configuration, octa core processor , Printer with two additional cartridges need to be quoted along with instrument.</li> <li>2. A white light source must be included for signal intensity correction. White light calibration should be completely automated and under software control.</li> <li>3. The system should include two high-efficiency Rayleigh rejection filters and laser line filter for each excitation wavelength</li> <li>4. Solid sample holder: KBr pellet holder</li> <li>5. Liquid sample holder</li> </ol>

		6. Facility to attach DRS,ATR etc
8.	Installation and Familiarization	Installation and training to users should be given at our laboratory by a trained Application engineer.
9.	Warranty	Minimum 3 Years warranty for complete instrument

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