

## INDIAN INSTITUITE OF TECHNOLOGY KANPUR

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# Department of Chemical Engineering

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Enquiry No: IITK/CHE/RM/18/01

Enquiry Date: May 16th, 2018

Closing Date: June 6th, 2018

Sealed quotations (technical bid and financial bid sealed separately) in INR by post/courier are invited for the supply of **Upright Polarized Optical Microscope** as per following specifications along with complete terms and conditions.

### Technical Specifications for **Upright Polarized Optical Microscope**:

S. No.	Item	Description
1	Microscope Body/Frame	<ul> <li>Polarising Microscope for Reflected Light (RL) and Transmitted Light (TL) illumination.</li> <li>Focusable Bertrand lens should be provided for conoscopic &amp; Orthoscopic observation.</li> <li>Allows Interchangeable stages</li> </ul>
2	Intermediate Magnification Changer	1X to 2X
3	Phototube	Wide field Trinocular tube with 22mm FOV or better
4	Focus	Stroke: 25 mm 2 to 3 step focus. Minimum graduation 1 micro-m.
5	Eye Piece	Pair of Wide field 10X focusable eyepiece with 22mm FOV or more. Eyepieces should be suitable for observation with and without eyeglasses.
6	Nose-piece	<ul> <li>Revolving 5 fold (or better) with atleast 2 Centerable Nosepieces (or better)</li> <li>Compatible for Differential interference contrast (DIC)</li> </ul>
7	Illumination	LED Transmitted and Reflected light source with lamp house.
8	Objectives	Polarizing strain free objectives  • 4X or 5X  • 20X  • 40X or 50X  • 100X  All the objectives should have chromatic aberration corrected in the visible region (Violet to red) ( ISO nomenclature: Semi – Apo Chromats) or better

9	Stage	<ul> <li>Rotatable Stage for POL with attachable mechanical stage and 45° clickstop. Graduated 1° increments.</li> <li>Additional X-Y right hand mechanical stage (75 X 50 mm <i>or bigger</i>) for transmitted and reflected light with attachable slide holder.</li> </ul>
10	Polarizer and Analyzer	360 degree rotatable polarizer and analyser for TL and RL.
11	Condenser	Strain free swing out type POL condenser
12	Filters	Light balancing filter & Neutral Density filters
13	Compensators	Quarter wavelength plate & Tint plate
14	Camera adapter	C-mount adapter for camera
15	Camera and Software*	<ul> <li>3-12 Megapixel color CMOS camera</li> <li>Pixel Size: 3.2 micron X 3.2 micron (or better)</li> <li>Fast live image capture with atleast 28 fps at 1024 X 768 (or better)</li> <li>Fast USB-2 connection (or better)</li> <li>Supported with Windows 8/10</li> <li>Related camera accessories</li> <li>Or better</li> <li>Compatible software for camera control and data analysis</li> </ul>
16	Upgradability	System should be easily upgradable for Fluorescence in future.
17	Cover	Dust Cover

<sup>\*</sup> Camera and software should be from same manufacturer.

#### **Terms & Conditions**:

Your quote should mention/include the following:

- Quotation must be valid for 90 days.
- The delivery time should be clearly mentioned. Shorter delivery time preferably within 6-8 weeks may be given a preference.
- Prices should mention FOB (your international airport), CIF New Delhi, and IIT-Kanpur including Packing and Forwarding, Insurance and fright.
- Authorization certificate from the principal if you are a local agent.
- Terms and conditions for the payment, including the banker's name of the principal and the account number, if any, for electronic transfer.
- Concessional rate of GST (@5%) will be applicable with reference to Notification No. 45/2017- Central Tax (Rate) dated 14/11/2017 for Indian manufactures. We will provide relevant certificate for this purpose. On import items for research purpose presently the GST applicable is 0% (zero).
- Warranty should be minimum 1 years (or more) after installation.
- Free installation and demonstration at buyer's site by the principal technical team.
- All specifications to be supported by documentary proof from principal. The part number of each part should be indicated along with the page number in the catalog.
- The bidders should clearly specify the after sales/service/application support capabilities and conditions.

• There should not be any compromise in model or its configuration for the Polarizing Microscope. The model as well as its configuration should comply with the manufacturer recommendation.

### **Optional**

• Separately quote the financial involvement for 3 years on site Annual Maintenance Contract (AMC) after normal warranty separately.

#### Note:

- The Institute reserves the right of accepting and rejecting any quotations without assigning any reason.
- Only principal manufacturers or authorized representatives are requested to send the quote along with proper certificates.

Kindly mention the enquiry number on the sealed envelope carrying the quotation and send the sealed quotation(s) to the following address:

Dr. Rahul Mangal Department of Chemical Engineering Indian Institute of Technology Kanpur 208016 Kanpur, U.P., INDIA

You will be informed accordingly by appropriate authorities if your bid is accepted. Please do not make unnecessary and unsolicited phone calls and emails (except to seek a clarification for the tender), you will be contacted as per need.