

**Indian Institute of Technology Kanpur**  
**Department of Materials Science & Engineering**

**Call for Quotation: Trinocular Research Microscope**

**IITK/MSE/ VVerma/2012-1/M1**

**DATED /24/02/2012**

**CLOSING DATE: 02/03/2012**

**Technical Specification** for Trinocular research microscope for material science application for reflected light, brightfield, dark field, (Possibility for upgradation to polarisation & differential interference contrast, with high resolution firewire digital camera system.

<ul style="list-style-type: none"> <li>• Research Microscope stand for reflected light, 12V/100W illumination, with dovetail for interchangeable stages, with adjustable height knob, focus stop and torque adjustment, with ground plate. <b>Power supply 90-250V (stabilized), 50/60Hz</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>3-step focus drive</b> for coarse, medium and fine focusing, focus torque adjustment and adjustable focus stop, with focus knobs</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Infinity corrected &amp; Harmonic Compensated (HC) Optical System</b></li> </ul>
<ul style="list-style-type: none"> <li>• Objective nosepiece, 5-fold with 32 mm. thread</li> </ul>
<ul style="list-style-type: none"> <li>• 4-fold illuminator for Reflected Light; with color-coded and centrable iris aperture and field diaphragm. Filter magazine for 4 light filters 32 mm diameter. Slots for polarizer/ analyser and DIC Prism</li> </ul>
<ul style="list-style-type: none"> <li>• Daylight filter,</li> </ul>
<ul style="list-style-type: none"> <li>• Reflector BF (for brightfield), Reflector DF (for darkfield),</li> </ul>
<ul style="list-style-type: none"> <li>• Lamp housing with lamp mount for halogen lamp 12V 100W, with 1-lens collector and heat protection filter, mains cable 0.55m with 5 nos. 12V/ 100W halogen lamp</li> </ul>
<ul style="list-style-type: none"> <li>• XY-Stage for Industry : size 102x102 mm travel range with stage bracket, XY-drive and Glass stage plate 116x116x3 mm, External Dimensions: 300x150mm</li> </ul>
<ul style="list-style-type: none"> <li>• Trinocular Phototube with fixed photo tube, with tube lens <math>\infty/1x</math>, with 30° viewing angle, with interpupillary adjustment 55-75 mm, with constant focus and beam splitter positions vis/phot: 50/50%, fixed</li> </ul>
<ul style="list-style-type: none"> <li>• Two nos. Focusable &amp; Adjustable Eyepiece 10x/22</li> </ul>
<ul style="list-style-type: none"> <li>• High Resolution Plan Achromat Universal Objective set - 10x/0.25 , 20x/0.40 for Brightfield and 50x/0.75 for Darkfield</li> </ul>
<ul style="list-style-type: none"> <li>• Upgradable to Transmitted Light</li> </ul>
<ul style="list-style-type: none"> <li>• High-resolution firewire digital camera system Resolution with maximum <b>7.0 Mpixels resolution</b> (3072 x 2304), Pixels size – 3.2<math>\mu</math>m x 3.2<math>\mu</math>m, Colour Filter – RGB (Bayer), Colour Depth : 30 bits, Exposure time - 107<math>\mu</math>sec – 2.0 sec, A/D converter: 10bit, Frame rate – 30 frames per sec, Image manager (Database) Software for PC, with PCI Interface Card, Fire Wire and firewire cable 4m; with C-mount 0.70x HC</li> </ul>
<ul style="list-style-type: none"> <li>• <b>OPTIONAL:-</b>PC workstation:- Core 2 -Duo Processor, 3.0Ghz, 2 GB SD RAM, DIMM-10ns, PCI Graphics Adapter 32 MB, 250 GB HDD (Expandable), DVD Read &amp; Write, 17" LCD TFT Col Monitor, Serial Mouse,</li> </ul>

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