



**DEPARTMENT OF CHEMISTRY, UNIVERSITY OF KERALA**

**(Re – accredited by NAAC with ‘A’ Grade)**

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**Reference Number:** (Provided along with each instrument)

**Date:** 02/03/2016

**QUOTATION NOTICE**

Competitive quotations are invited from various firms for the following laboratory equipments as per the specifications and terms & conditions mentioned towards the purchase of equipments for the specific project on “Design and Development of Functional Materials for Energy Related Applications”. The quotations in sealed covers addressed to the Professor & Head, Department of Chemistry, University of Kerala, Kariavattom, 695581 **should reach the department on or before 14.03.2016, at 16.00 hrs.** All previous tender notices in respect of the purchase of the following instruments stand cancelled. The quotations will be opened at 17.00 hrs on the same day in the case of receipt of sufficient number of bids for every instrument. **Please note that this is completely a revised Tender Notice and hence those who have already submitted the sealed quotation, for any instrument against the previous notice dated 31.01.2016 or 17.02.16, have to submit fresh quotation for each item with the specific reference number, again.**

**List of Equipments**

#	Equipments	Specifications
1	<b>Rack Cluster</b> <b>Ref:</b> <b>DC/ST/EQ/Specific</b> <b>Project/Eq.3, dt:</b> <b>02.03.2016</b>	Two compute nodes for the Rack Cluster with Dual redundant power supply Compute node: Minimum configuration required: 2X Intel Xeon E5-2420 v2 (Hexa core) 2.2GHz, 15 Mb Cache, 7.2GT/s QPI Turbo, 16 GB memory, 300GB 15k rpm, 6Gbps SAS 3.5in.

2	<b>Optical Metallurgical Microscope</b> <b>Ref:</b> <b>DC/ST/EQ/Specific Project/Eq.4, dt:</b> <b>02.03.2016</b>	Product type- Camera Microscope, Magnification: 1000x Head Configuration: Binocular, Eye piece: widefield, eye piece diameter : 20 mm, eye piece magnification: 10x, Image sensor: 1/2.5" CMOS, 5.0 megapixels, Cable(s): USB; Stage dimensions: 142 mm x 140 mm, X-Y directional movement, Illuminator(s): 3 W LED, variable, Output: USB, HDMI, SD Card, with analyzing software.
3	<b>Micro Vicker's Hardness tester</b> <b>Ref:</b> <b>DC/ST/EQ/Specific Project/Eq.5, dt:</b> <b>02.03.2016</b>	<b>Minor Load:</b> 1 Kgf <b>Major Load:</b> 60Kgf, 100Kgf, 120Kgf <b>Test Force Application:</b> Dead Weight <b>Test Force Control:</b> Motorized <b>Results Display:</b> Hi Def Digital Readout <b>Resolution:</b> 0.1HR <b>Memory/Output:</b> 500 Tests/USB <b>Vertical Capacity:</b> 8" <b>Throat Depth:</b> 7" <b>Height:</b> 28" <b>Width:</b> 8" <b>Depth:</b> 22"
4	<b>Coating thickness gauge</b> <b>Ref:</b> <b>DC/ST/EQ/Specific Project/Eq.6, dt:</b> <b>02.03.2016</b>	<b>Measuring range: 3000PRO:</b> 0 - 60.00 mils / 0 - 1500 μm <b>Minimum measurement area:</b> 5 mm x 5mm/0.2" x 0.2" <b>Minimum substrate thickness:</b> 0.2mm/8 mils (for F-versions); 50 μm/2 mils (for N-versions) <b>Operating temperature:</b> 0 °C to 50 °C (storage temperature - 20 °C to +60 °C. <b>Surface temperature:</b> -15° C - 60° C (standard); 15° - 150° C (w/3000-HTF) 15° - 300° C (w/3000-HTF-300C) <b>Power supply:</b> 2 x round cell (AA) 1.5 V up to 60 hours of operating time
5	<b>Bath Sonicator</b> <b>Ref:</b> <b>DC/ST/EQ/Specific Project/Eq.7, dt:</b> <b>02.03.2016</b>	Ultrasonic cleaning bath with a standard heater. SS tank capacity – 10L. SS tank size – 12"X10"X6". Heater power -500W. Ultrasonic power – 250W. Double Display. Digital Timer. Auto countdown for 5 min. Pulse Sweep Power for uniform distribution of ultrasonic energy. Digital temperature controller with 60°C maximum setting.

6	<b>Universal Testing Machine</b> <b>Ref:</b> <b>DC/ST/EQ/Specific Project/Eq.8, dt: 02.03.2016</b>	Capacity 20 Ton Digital computerized Model Digital panel ,software and all standard accessories Max capacity tone 20 T 200 KN Measuring range 0-20,0-50,0-100,0-200 kn Four ranges Clearance for tensile at fully descended working piston mm 50-700 Clearance for compression at fully descended working piston mm 0-700 Clearance between columns mm 500 Ram stroke mm 200-750 Straining /piston speeds mm/min at no load 200 CONNECED LOAD HP.
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**Terms and conditions:**

1. Please send separate quotations for each item with its specific reference number.
2. The price should be quoted in Indian Rupees which should be for supply, installation, demonstration and testing at the University campus, Kariavattom, Trivandrum.
3. The price should be inclusive of all taxes. It should also include all incidental expenses, if any, till complete satisfactory demonstration.
4. Two years comprehensive Warranty is required. The supplier should be fully equipped to render after sale service during warranty and thereafter.
5. The Bidder should be a manufacturer or their dealer specifically authorized by the manufacturer to quote on their behalf for this tender. Certificate to this effect should also be included in the quotation.
6. The models quoted should be in successful operation for at least one year as on the date of submission of the Bid.
7. Users list of the specified model to be attached preferably from research centers within Kerala.
8. Performance Certificate from at least 3 research centers in Kerala, preferably in Trivandrum shall be an added advantage.
9. Suppliers with service centers in South India, preferably in Kerala shall be an added advantage.
10. The University of Kerala reserves the right to accept or reject any or all tenders without assigning any reason thereof. In case of any dispute the decision of the University Authority shall be final.

**Sd/-**

**The Associate Professor and Head**