Physics Department
Indian Institute of Technology Delhi

CORRIGENDUM

Dt: 27-12-2013

Ref: PHYS/FIST/02

Sub: CORRIGENDUM for Purchase of **PL/Raman imaging and laser ablation /writing setup and accessories (NIQ date: 16-12-2013 and lat date : 13-01-2014) (IITD Tender ID 3885)**

Please refer to the above purchase under *item1* and note the following amendments/corrections.

1. In Item 1, first line: the word The ‘ inverted’ should be read as ‘ upright’.
2. For item 1, The Raman spectral minimum measurable range has to be $\leq 50cm^{-1}$ for 532nm and above lasers and $\leq 250cm^{-1}$ for 410nm or below laser excitations.
3. In item 1, 8th point: the grating ‘6000’ should be read as ‘600’. The corrected sentence is “-800mm focal length monochromator: 600 and 1800 grv/mm gratings with CT type turner (computer controlled);..”
4. In item 1, 11th point: The 532nm DPSS laser attachment power should be >50mW .

Other details are same as specified in the NIQ document.

Prof. Anurag Sharma, Professor
Department of Physics, IIT Delhi, Hauz Khas,
New Delhi 110 016, India.

Physics Department
Indian Institute of Technology Delhi

Notice inviting quotations

Dt: 16-12-2013

Ref: PHYS/FIST/02

Sub: Purchase of **PL/Raman imaging and laser ablation /writing setup and accessories**

Please send your quotation for purchase of above said item(s) as per specifications given below. Your quotations should reach latest by **5 PM** on **13-01-2014**. Quotations are solicited only for items manufactured by reputed company with proven past record of sales, supply and after-sale service.

1. High-resolution confocal microscope, inverted open system for Raman/PL spectral imaging (fully automated system) - with laser port attachment; Revolving nose piece for 5 objectives - Rectangular mechanical stage; - Plano-achromatic visible/UV objectives 10x (NA=0.25), 50x (NA=0.75) and 100x (NA=0.9)); 10X/20X NIR objective (for NIR laser); - High resolution (color) camera, - XYZ computer controlled motorised stage with min. of 0.5 micron (for mapping and depth profile). Joystick and software controlled. Removable bottom frame for further expansion. - Reflection/transmission modes, polariser/analyser attachments. Internal whitelight illuminator - Entrance optics laser coupling assembly : includes all optics, ND filter wheel (computer controlled), interference filters and laser line rejection filters (notch or edge) suitable for all the lasers given below - 800mm focal length monochromator: 6000 and 1800 grv/mm gratings with CT type Turner (computer controlled); spectral range 200-~1100nm. Spectral resolution: 0.35cm^{-1}(or better) at 633nm for 1800 grv/mm grating. Two exits for detectors are to be provided. Interface : USB/RS232 (with all required softwares and cables). - Confocal coupling optics for coupling light from microscope to spectrometer. - CCD detector: air cooled (<-70°C) , 200-1100nm; dark noise <0.002e /pixel/sec; 26x26µm pixel sizes or better, QY>30%, USB/RS232 interface - Low power laser attachments: 405nm (>40mW) diode laser, 532 nm(DPSS laser); 632.8nm (He-Ne, >10mW) and 786nm (Intra cavity laser diode, > 100mW). All the lasers must have appropriate optics and coupled via laser port attachment (with power measuring facility) for both PL and Raman measurements. - A fully computer controlled systems (data acquisition, manipulation, incl. Raman and PL mapping) with all relevant softwares, manuals, cables are to be supplied.	– **01 Qnty**
2. High Energy Q-Switched Nd:YAG laser, - 2J @ 1064 nm, 10 Hz, Variable Rep Rate > 1-10 Hz or better; Pulse width: 8-12 ns. - -Beam diameter < 10 mm dia and divergence < 0.5 m rad,	**01 qnty**

- Stability <50μrad.; - Appropriate frequency conversion optics for output of 1064,532,355 and 266nm (temperature stabilised). - Energy levels 1J@532nm,@500mJ@355nm, ~150mJ@266nm (or better). All required dichroic beam splitters for the above are to be included . - Tap water-free cooling system to be included. - Fully computer controlled. USB/RS232 - Appropriate beam dump(s) has to be provided. - All necessary accessories such as cables, software, manuals, IR/UV cards, tool kits, spares are to be supplied	
Note: IIT Delhi is a non-profitable educational institute involved in research & teaching. It is expected that special educational discount would be offered and the same be specifically mentioned in the quotation.	

TERMS & CONDITIONS COVERING SUBMISSION OF QUOTATIONS

Technical requirements

a. One year comprehensive on-site warranty is necessary.
b. All items are to be in **metric scale** only.
c. Please include s statement of compliance (as per the NIQ specifications)
d. The quotation must contain the following details, otherwise quotation cannot be considered.
   i. The quote must contain at least one of the aforementioned items (1 and/or 2) in full.
   ii. The **technical** bid **must** contain all the required specifications, drawings, graphs of response, transmission/reflection/response spectra of components if any) etc.
   iii. Along with the technical bid, please enclose support documents related to previous sale of the above items(s) within India.
   iv. If the items are of proprietary nature, please provide proprietary certificate from the manufacturer.
   v. All INDIAN agents must provide agency certificate, IEC and central sales tax certificate.

2. DELIVERY: The rates quoted must be for FOB

3. TERMS OF PAYMENT: **100% post-payment (wire transfer/LC) on delivery and satisfactory installation**

4. INSTITUTE'S RIGHTS : IIT Delhi reserves the rights of acceptance or rejection of any or all quotations.

5. VALIDITY OF QUOTATIONS: Quotations should be valid at least for a period of 3 months.

6. SUBMISSION OF QUOTATIONS: Both Technical and price bids are to be quoted separately in separate sealed covers. Both these bids should be sent in a sealed cover marked at the top SUBJECT AND DUE DATE

13-01-2014 by 5PM

Quotations should be sent, on or before due date to:

Prof. Anurag Sharma, Professor
Department of Physics, IIT Delhi, Hauz Khas,
New Delhi 110 016, India.

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