

Physics Department
Indian Institute of Technology Delhi

Notice inviting quotations

Dt: 12-12-2013

Ref: PHYS/FIST/01

Sub: Purchase of **Femto second laser system setup & 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 09-01-2014**. Quotations are solicited only for items manufactured by reputed company with proven past record of sales, supply and after-sale service.

1. Femto second laser system setup	01 set
<p>1.1. <u>Ti-Sapphire Oscillator with pump</u> ... 01 Qty</p> <ul style="list-style-type: none"> - Avg. power output $\geq 2.3\text{W}$, Wavelength range $\sim 690\text{-}1040\text{nm}$, Rep. rate $\sim 80\text{MHz}$; Pulse width = 80fs (fixed) , TEM₀₀ , linearly polarised; beam diameter $< 10\text{mm}$ and divergence $< 0.5\text{mrad}$, computer controlled system. - Appropriate pump laser along with cooling system are to be included <p>1.2. <u>Regenerative Amplifier</u>, (to be seeded by item 1.1) ... 01 Qty</p> <ul style="list-style-type: none"> - Energy 4mJ @ 1kHz, Wavelength= $\sim 800\text{nm}$, Pulse width= $\leq 120\text{fs}$, Rep. rate= 1kHz, energy stability $< 0.5\%$ rms over 24hrs, - Nd:YLF pump laser (Q-switched): Wavelength = 527nm, Rep. rate= 10KHz, Power = 20W (or as required), diode pumped (cooling system to be included) - Appropriate optics/mounts for seeding the regenerative amplifier from item 1.1. - There should be a provision to use the seed oscillator (item 1.1) independently. <p>1.3. <u>Optical Parametric Amplifier (OPA)</u> (using item 1.2 as pump) ...01 Qty</p> <ul style="list-style-type: none"> - Spectral range= $\sim 240\text{-}2500\text{nm}$, Pulse width is as restricted by item 1.2, Pulse Energy = 40 to 120μJ; (all NLO crystals and optics to be included) - Appropriate seeding ($< 60\%$ beam splitter) optics/mounts from item 1.2 are to be included - Fully computer controlled automated system . - All necessary accessories such as cables, software, manuals, tool kits, IR/UV cards, spares are to be supplied 	
<p>2. Diagnostic tools :</p> <p>2.1. <u>Low repetition rate ($\sim \text{kHz}$) Autocorrelator</u>: 50-3500fs, 700-1100nm, photo-detector module, color display, computer</p>	01 Qty each

<p>interface , TTL</p> <p>2.2. <u>Miniature Spectrometer</u>, f/4 model single grating, wavelength range 350-1100nm, spectral resolution 0.1nm (or less), S/N 300:1 (or better), SMA termination, computer controlled.</p> <p>2.3. <u>IR viewer</u> (350-1550nm), hand- held model</p> <p>2.4. <u>Power meter with detector heads</u>, compatible with both detectors, backlit LCD display, USB/RS232 interface: Detector heads: (i) Detector-1: Thermopile type, 30W or more, 190-3000nm, pulse energy density $>1\text{J}/\text{cm}^2$, (ii) Detector-2: Si based, 200-1100nm, power $> 0.2\text{W}$.</p>	
<p>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.</p>	

TERMS & CONDITIONS COVERING SUBMISSION OF QUOTATIONS

Technical requirements

- a. Three (03) years comprehensive on-site warranty is necessary for item 1.
- b. The Indian agent must submit a signed certificate that the service engineer would attend any technical problem within 05 working days.
- c. All items are to be in **metric scale** only.
- d. Please include s statement of compliance (as per the NIQ specifications)
- e. 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 90 days.

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

09-01-2014 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.**

Prof. Anurag Sharma, Professor
Department of Physics, IIT Delhi.