

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE
Jadavpur, Kolkata 700 032

Tender No.: MS/AP/12/A-11 Date: 24.12.2012

Sub: Fluorescence Up-conversion Spectrometer set up

Sealed tender in two bids system (**Technical Bid & Financial bid**) is invited from bonafide, resourceful and eligible manufacturers/exclusive distributors for **Fluorescence Up-conversion Spectrometer set up** and accessories.

Part - I (Technical Bid) of the tender should contain technical details and commercial terms and conditions and **Part - II (Price Bid)** should indicate group-wise price as mentioned in the Technical Bid where applicable. The Technical Bid and Price bid are to be submitted in two separately sealed envelopes distinctly marked accordingly and both to be put inside **another envelope**, which should be sealed and super scribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letterheads.

Complete tender bids should reach the **office of the Department of Materials Science, Indian Association for the Cultivation of Science, 2 A & B Raja S. C. Mullick Road, Jadavpur, Kolkata - 700032** on or before the scheduled date & time specified below.

Tender Notice No.	IACS/ MS/AP/12/A-11 Dated 24.12.2012
Last date and time of submitting tender	28th January, 2013 at 12.00 noon
Pre-bid meeting to discuss technical specifications	16th January, 2013 at 12.00 noon
Date and time of opening tender	28th January, 2013 at 3.00 PM
Place of opening tender	in S. N. Bose Hall, IACS, Kolkata
contact	e-mail: msap@iacs.res.in Tel. +91-33-2473 4971 (ext. 1209)

The **technical bids** will be opened first to evaluate the technical specifications of the equipment thereafter, the **Price bids** of only technically qualified bidders will be opened.

1. TECHNICAL BID:

The Technical Bid should contain technical specifications and kept in a separate envelope duly super scribed as "**Technical Bid**" on the outer side of the envelope as detailed above.

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TECHNICAL BID:

Technical specification for Fluorescence Up-conversion Spectrometer Set Up

A. Specifications for LASER part:

- 1) Single Box Laser (Ti: Sapphire oscillator) (for better thermal stability, long term operation reliability and space saving)
- 2) Tuning range: 700-1000 nm.
- 3) Output average power: Guaranteed 2.5 W or more at 800 nm.
- 4) Repetition rate: ~ 80 MHz
- 5) Beam pointing stability: $\sim < 0.5$ micro rad/nm.
- 6) Noise: $< 0.20\%$.
- 7) Stability: $< \pm 0.5$ to 1 %.
- 8) Spatial Mode: TEM₀₀.
- 9) Beam Diameter: ~ 1.2 mm.
- 10) Polarization: > 500 : 1 horizontal.
- 11) Pulse width : 100 to 150 fs (For low pulse broadening without additional optics, particularly for microscopic application)
- 12) Included with dry air purging unit and chiller for operation.
- 13) Integrated pump laser: wavelength 532 nm, out noise $\sim 0.04\%$ rms, pointing stability ~ 2 micro rad/ $^{\circ}$ C, power stability $\pm 1\%$. (Power should be > 10 watt for the better stability in the output average power of ~ 2.5 W @800 nm).
- 14) System should have an Integrated or external spectrometer and power meter for the measurement of output wavelength of output wavelength and power.

B. Fluorescence Up-conversion Spectrometer :

- 1) Fluorescence detection spectral range for up-conversion measurement 320 nm- 1600 nm.
- 2) Time resolution (IRF < 250 fs).
- 3) Maximum delay between gate and excitation pulse: 3 ns or more with step resolution of 10fs or less.
- 4) Double monochromator (computer controlled).
- 5) Sample holder for solid, liquid and thin film system.
- 6) System should have capability of performing TCSPC measurement (200-650 nm) in the same spectrometer with 200ps resolution.
- 7) Suitable camera for Laser beam alignment.

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- 8) Second Harmonic Generator unit (efficiency should be $\geq 25\%$) generating frequency doubled output of femtosecond oscillator for sample excitation.
 - 9) GT polarizer (in suitable optical mount) for fluorescence anisotropy measurements.
 - 10) Single -photon counting detector/electronics with ultra low noise and effective temporal response.
 - 11) Suitable PMT compatible with Ti: sapphire oscillator (frequency ~ 80 MHz) with TTS of ≤ 160 ps.
 - 12) Compatible software for data acquisition and data analysis.
 - 13) Compatible PC with LCD Monitor.
- C. Vibration Free Pneumatic Optical Table for the above set up (8 ft X 4 ft) with 300 mm thickness (should be from internationally well-reputed company).
 - D. Warranty for minimum 2 year after installation for Laser and up conversion Spectrophotometer.
 - E. Installation, personnel training and test measurements.
 - F. Comprehensive Annual Maintenance Cost (AMC) for the above items should be mentioned.

User list: The supplier should provide a list of current users (with contact no, Email address etc) for the quoted item in India.

Service facility: Supplier should mention their details of service setup who are responsible for after sales support. Response time should be within 24 hours

PRICE BID:

The financial bid indicating (item-wise) price for the item (s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as "PRICE BID" on the outer cover of the envelope as already detailed above. The price bids of only technically qualified bidders will be opened and they will be intimated the date and time of opening at their email id-s. Rest of the bids will stand rejected.

PRICE: Price to be quoted both on FOB/CIF basis. Name of the particular Port from where our authorized forwarder will lift the consignment must be mentioned clearly with FOB price.

BID SECURITY:

1. The financial bid should be super scribed as "PRICE BID" on the outer cover of the envelope.

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2. **Bid Security (EMD):** An Account Payee Demand Draft of **Rs. 2.00 Lakh** in the name of "**Indian Association for the Cultivation of Science**" is to be furnished by the bidders except those who are registered with the Central Purchase Organizations, National Small Industries Corporation or the concerned Ministry or Department, as Bid Security money or Earnest Money Deposit (EMD). The bid security may also be accepted in the form of Bank Guarantee from any of the commercial banks in an acceptable form.
3. The Demand Draft for the Bid-Security money should have at least 45 (forty five) days validity period after the opening of the Bids.
4. In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

PERFORMANCE SECURITY:

An Account Payee Demand Draft of **10% of the order value** in the name of "**Indian Association for the Cultivation of Science**" is to be furnished by the successful bidder as **Performance security**. Performance security money should remain valid for a period of 60 days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Bid security money will be refunded to successful bidder on receipt of THE Performance security money.

C) GENERAL INSTRUCTIONS:

1. Incomplete & conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof.
2. Tender Notice Number and tender for "**Fluorescence Up-conversion Spectrometer Set Up**" should clearly be written on the envelope.
3. At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the Institute website. Prospective bidders are advised to occasionally visit the website (www.iacs.res.in/tender) for any amendment.
4. **Payment:** 100% against delivery and successful installation subject to submission of performance guarantee.
5. **Warranty:** Minimum 2 years.

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6. **Installation/Demonstration/Application Training at site:** Free of cost by the supplier.
7. **Service facility:** Supplier should mention their details of service setup and Manpower in Kolkata who are responsible for after sales support. Response time should be within 24 hours
8. **Validity of tender:** Tender submitted shall remain valid at least for three months from the date of opening the tender. Validity beyond three months from the date of opening of the tender shall be by mutual consent.
9. The tender should accompany a compliance chart.
10. The rate should be inclusive of all taxes, transportation etc. Nothing extra will be paid in addition to the quoted rate.
11. The model number, make, and a printed literature of the product shall submit positively.
12. Proposed delivery schedule should be mentioned clearly.
13. Manufacturers/exclusive distributors/vendors should have history of supplying this type of instrument to this or other Scientific Organizations.
14. Authorized Dealership Certificate is must in case of principal manufacturing company is not quoting directly.
15. Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
16. In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of technical bids will be the following working day at the appointed time.
17. In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.
18. For any clarification regarding technical specifications, etc. please send your queries to "Prof. Amitava Patra" <msap@iacs.res.in>
19. The Institute reserves the right to reject any or all of the tenders received without assigning any reason thereof.

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