



DEPARTMENT of MATERIALS ENGINEERING
Indian Institute of Science
BANGALORE

PRAVEEN C. RAMAMURTHY
Professor

Inquiry Number: MET/PCR/IOE/001/2020-21

Dated: 11th September 2020

Request for Quote for the procurement of Photoluminescence Spectrophotometer

Indian Institute of Science, Bangalore
(Last Date: September 25th, 2020)

This is an RFQ (Request for Quote) for Photoluminescence Spectrophotometer at IISc, Bangalore.

Procedure & Other conditions:

1. The decision of the purchase committee will be final.
2. Any questions can be directed to the undersigned at praveen@iisc.ac.in.
3. The quotation should address to: The Chairman, Attention: Prof. Praveen C Ramamurthy, Department of Materials Engineering, Indian Institute of Science, Bangalore – 560 012.
4. The deadline for submission of softcopy of the quotes is **1000 hours (IST) on September 25th, 2020**. The quotes should be addressed to the undersigned at the address given below.
5. Only vendors who meet the technical requirement will be considered for the commercial negotiation.
6. The technical proposal should contain a compliance table with four (4) columns. The compliance table should list out all the items in the requirements section given below, in the same order. The first column should describe your compliance in a “Yes” or “No” response. If “No”, the second column should state the extent of deviation. The “third” column should state the reasons for the deviation, if any. The fourth column can be used to compare your tool with that of your competitors or provide details as requested in the technical requirements table below. Any other feature that you would like to bring to the attention of the purchase committee, can be listed at the end of the compliance table.
7. The technical specifications given below are “highly desired”. However, committee reserves the right to lower technical specifications, to obtain a more competitive price.
8. The commercial proposal should have the price of the item. All the accessories needed for the tool to function as per the technical specification, must be listed. Please provide itemized quotes for the tool and any other attachments/software.
9. The validity period of the quotation should be at least 90 days.
10. The commercial bid must include the price of the item in Indian / Foreign currency, indicating the following separately:
 - a. FOB price
 - b. Freight and Insurance: If any.
 - c. Shipping: The quotes should be CIF Bangalore, India. So please include cost of shipping.
 - d. Total
11. Necessary training to operate the procured setup and required literature support should be provided without additional cost.
12. Your quotation should clearly indicate the terms of delivery, delivery schedule, entry tax, and payment terms.

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13. Final installment will be made only after satisfactory installation and demonstration of critical capabilities.
14. Vendors should undertake to support the system with spares and software bugfixes, if any, for the next 5 years.
15. Please indicate the warranty provided with the tool. Warranty of 3 years or more is preferred. No travel claims must be made by vendor for servicing during the warrantee/guarantee period.
16. Provide itemized cost for required spares for 2 years of operation. For sake of this calculation, the vendor may assume active tool usage of 10 hours/ week. This number will be used to estimate the life cycle cost of the tool.
17. The vendor should be able to repair and maintain the equipment, once it is installed in India. Clarify if periodic (preventive) maintenance can be done by a trained on-site engineer (i.e. IISc employee) or requires a specialist from the OEM.
18. If the maintenance can be done by training a IISc employee, please specify the cost of this training, as an additional option.
19. If maintenance must be done by OEM, as an additional option, provide cost of an annual maintenance contract (AMC) for 3 years, post warranty. The AMC must cover 1 scheduled and 1 emergency visit per year. It must also indicate who will service the AMC, an Indian agent or the OEM. The AMC cost must also include an itemized list of spares that are essential for the scheduled visits.
20. The vendor should have a good track record of delivering such equipment to universities/research institutions in India and high rank institutions worldwide. The RFQ must include references of 3 previous installations in the last 5 years, preferable in India. Please provide the names and contact addresses of the referees, so that the committee can contact them independently.
21. Vendors are encouraged to highlight the advantages of their tools over comparable tools from the competitors.

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Photoluminescence Spectrophotometer technical specifications

The system should be modular, computer-controlled fluorescence spectrophotometer and capable of measuring steady state and the future upgradation to time-resolved photoluminescence of solid, liquids and thin film samples.

Optics	All reflective optics for high sensitivity at all wavelengths and
Source	≥ 150 W CW Ozone-free xenon arc lamp
Monochromators	Czerny-Turner design with plane gratings for optimized focus at all wavelengths and minimum stray light
Excitation grating	1200 groove/mm blazed at 330 nm
Emission grating	1200 groove/mm blazed at 500 nm
Bandpass	0 to 30 nm, continuously adjustable
Wavelength Accuracy	± 0.5 nm or better
Integration Time	1 ms to 160 s
Base detector	Photomultiplier, 185 to 900 nm, cooled and stabilized
Reference Detector	UV-enhanced silicon photodiode
Standard filter holders for excitation and emission path	2" square filters can be added for any specific use
Water Raman S/N	6,000:1 FSD method
Steady state reaction kinetics acquisition rate	1 KHz to 0.02 Hz
Excitation Bandpass Filters	280 nm \pm 12.5 nm FWHM, 25.4 mm diameter 320 nm \pm 12.5 nm FWHM, 25.4 mm diameter 340 nm \pm 12.5 nm FWHM, 25.4 mm diameter 400 nm \pm 12.5 nm FWHM, 25.4 mm diameter
Emission Filter	Filter with wavelength of 480 nm, 532 nm and 650 nm
Filter holder adaptor	1-inch (and 25mm) round filters and fits in 2x2-inches square standard filter holders

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Quartz Cuvette and solid sample holder	Cuvette: 4ml volume, 10x10mm optical path 500 microliter, 10x10mm optical path Solid Sample Holder Designed for viewing front-face fluorescence of thin films, powders, pellets, paper, fibers, or microscopic slides. Variable alignment angle
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- Two Set of 4000 μ L, 500 μ L standard non-fluorescence cuvettes should be provided.
- Single external LASER beam fiber coupling port and coupling assembly to be provided
- Integrated sphere for absolute fluorescence measurements
- The instrument should be supplied with software that has been tested and confirmed to run on 64-bit versions of the Windows 10 Professional. Functions for converting to CSV files/text files should be provided.
- The standard features provided by the software should include a spectrum mode, 3D spectrum mode, photometric mode, quantitation mode, and time-course mode. Validation software must be included.
- Future provision for Fluorescence quantum yield and Fluorescence quantum efficiency measurements must be there.
- Future provision for Time resolved photoluminescence measurements with pulsed LED of 350, 450, 532 and 980 nm must be provided.
- Warranty and 3 year service included.