



INDIAN INSTITUTE OF TECHNOLOGY JODHPUR

Request For Technical Information and Pro Forma Quotations

For the procurement of a high-end spectrofluorimeter (Visible and NIR Range)

1. Introduction

The Indian Institute of Technology Jodhpur (IIT Jodhpur) intends to procure a **high-end spectrofluorimeter (Visible and NIR Range)** for advanced photoluminescence (PL) characterization of thin films in the visible and near-infrared (NIR) region, a high-end research-grade spectrofluorimeter should be capable of steady-state, time-resolved, polarization-dependent, and quantum yield measurements with interchangeable detectors extending into the NIR (up to 1700 nm or beyond, depending on applications).

Before initiating the formal procurement process, the Institute invites Technical Information and Indicative Pro Forma Quotations from eligible Original Equipment Manufacturers (OEMs) or their authorized representatives.

2. Purpose

The objectives are to:

- Obtain technical information from prospective OEMs/authorized representatives.
- Obtain indicative Pro Forma Quotations for budget estimation.
- Identify a suitable high-end spectrofluorimeter that covers the visible and NIR ranges to measure solution and solid-state emission spectra, quantum yield measurements, and polarization values.
- The systems should be suitable for measuring solutions, powders, thin films, etc.

3. Disclaimer

This document is issued **only for obtaining technical information and indicative Pro Forma quotations.**

Submission of information under this proposal:

- shall **not** be treated as a financial bid;
- shall **not** constitute any commitment on the part of IIT Jodhpur to procure the equipment;



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N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 02912801826 | ✉ office_enauto@iitj.ac.in

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4. Equipment Details

- Name of Equipment: **High-End Spectrofluorimeter**
- Quantity: **01**
- Broad Functional Requirements:
Attached

(The above requirements are indicative and may be revised after evaluation of the responses.)

5. Eligibility Criteria

Interested firms should:

- Be an Original Equipment Manufacturer (OEM) or an authorized distributor/dealer.
- Have experience in supplying similar equipment.
- Have adequate installation and after-sales service support in India.

6. Information/Documents to be Submitted

The interested firms shall submit the following (*Annexure-I*):

1. Company Profile.
2. Details of the OEM.
3. Product Brochure/Catalog.
4. Detailed Technical Specifications.
5. Compliance with the Broad Functional Requirements.
6. List of previous users/clients with installation reports
7. Details of Warranty.
8. Details of After-Sales Service Support.
9. Authorization Letter from OEM (where applicable).
10. Any additional technical information relevant to the equipment being offered.

7. Pro forma Quotation

- Interested firms are requested to submit a Pro Forma Quotation (*Annexure-II*) along with their Request for Technical Information and Pro Forma Quotation response. Indicative **Pro Forma** quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges. Wherever applicable, the Annual Maintenance Contract (AMC) and/or Comprehensive Maintenance Contract (CMC) charges and spare parts shall be quoted separately as additional charges.
- Expected delivery schedule and other relevant technical and commercial information.



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Important Note:

- The **Pro Forma** quotation is required only for cost estimation and budget planning purposes.
- The prices quoted shall be indicative/non-binding.
- The Pro Forma quotation shall not be treated as a financial bid.
- Submission of a **Pro Forma** quotation shall not confer any right or preference in the subsequent procurement process.

8. Presentation/Demonstration

The Institute may invite a technical presentation or product demonstration. The date and venue shall be communicated separately.

9. Submission:

Interested firms may submit their Proforma Quotations on or before the due date, either in a sealed cover or via email (as applicable).

The envelope/email should be superscribed as:

"Request For Technical Information and Pro Forma Quotations for Procurement of High-End Spectrofluorimeter in the visible and NIR Range"

8. Important Dates

Activity	Date
Publication	27-07-2026
Last Date for Submission	01-08-2026
Technical Presentation (if required)	To be informed
Clarification Meeting (if required)	To be informed

10. General Terms & Conditions

1. This **Request for Technical Information and Pro Forma Quotations** is issued solely to obtain technical information and **Pro Forma** estimates.
2. The Institute reserves the right to accept or reject any or all responses without assigning any reason.
3. Submission of a **Request for Technical Information and Pro forma Quotations** does not create any contractual obligation.
4. The Institute may seek additional information, technical clarifications, demonstrations, or presentations from any participant.



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5. The Institute may modify the technical requirements based on the responses received.
6. The final technical specifications may be prepared by the User Committee after evaluating all responses to the **Request for Technical Information and Pro forma Quotations**.
7. The subsequent procurement, if any, shall be carried out through an appropriate procurement method in accordance with the GFR 2017 and applicable procurement rules.
8. Participation in this **Request for Technical Information and Pro forma Quotations** does not automatically entitle any firm to participate in or receive any preference during the subsequent tender process.

11. Contact Details

Name: Dr. Swati Jindal

Designation: Assistant Professor

Department: Chemistry

Email: sjindal@iitj.ac.in



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Annexure-I

Request For Technical Information and Pro forma Quotations Response Format

1. Name of the Firm:
2. Registered Address:
3. Name of OEM (if applicable):
4. Contact Person:
5. Email:
6. Phone:
7. Product Name and Model:
8. Brief Technical Description:
9. Compliance with Broad Functional Requirements:
10. List of previous users/clients with installation reports:
11. After-Sales Service Details:
12. Any Additional Features:
13. Remarks (if any)



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Annexure-II

Format for Pro forma Quotation

Sl. No	Description	Amount (INR)
1	Indicative Pro forma quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges.	

Warranty Period: _____

AMC/CMC Charges (after warranty): _____

Delivery Period: _____

Authorized Signatory

Name: _____

Designation: _____

Company Seal & Signature



Technical specification for Spectrofluorometer for steady state PL

Serial number	Components	Descriptions
1	Standard configuration	Major application: A spectrofluorometer to measure the steady state fluorescence excitation and emission spectra/ intensity of liquid samples and Solid Samples Optics: Spectrofluorometer should have all reflective optics for perfect focus at all wavelengths from deep UV to the NIR. Light source: 150 W Xenon, continuous output, ozone-free lamp & integrated power supply for steady state PL measurements. Monochromator: Single-grating excitation & emission spectrometers. f/3.9 Czerny-Turner design with plane high quality gratings for perfect linear dispersion & accurate focus at all wavelengths and minimum stray light. Total focal length should be 180mm. - One grating 1200 groove/mm blazed at 300-400 nm with optical range 220 – 700 nm should be included for excitation monochromator. - One grating blazed at 400-500 nm should be included for emission monochromator. - Spectral resolution should be 0.3 nm fwhm or better. - Maximum scan speed should be 80 nm s⁻¹. - Step size 0.1– 100 nm or better. - Dispersion 4.0 nm mm⁻¹ or better
2	Detectors	Emission detector: should have high sensitivity in photon counting mode, air cooled & stabilized. Sensor must have good response between 250 – 850 nm or better.



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		▪ Linearity of the detector $>1 \times 10^6$ counts s^{-1}. ▪ Typical dark current should be 1000 s^{-1} or better. Reference detector: Calibrated photodiode for excitation reference correction. Spectral range should be 240 – 900 nm or better.
3	Excitation shutter	Computer controlled
4	Sensitivity	Should have water Raman sensitivity specification of $>13000:1$ (FSD Method) with no optical filters, no smoothing of data & no repeat scans.
5	Integration time	1 ms to 160 s.
6	Bandpass	Bandpass should be continuously adjustable from 0 to 29 nm.
7	Wavelength accuracy	Wavelength accuracy should be ± 0.5 nm or better.
8	Filters	System configuration must include standard filter holders for excitation & emission path
9	Kinetics acquisition rate	Steady state kinetic acquisition rate should be in the range of 0.02 Hz-1 kHz.
10	Quartz Cuvettes	Standard quartz cuvettes: Capacity 4ml, Dimensions: 10 mm x 10 mm optical path, open top with cap-2 Nos 500μL Cuvette with appropriate adapter-1 No 250μL Cuvette with appropriate adapter-1 No
11	Software	▪ It should be fully automated through user-friendly Origin -powered software.



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		▪ Should have option for 3D excitation-emission-matrix scan (EEM). ▪ Must have option for excitation and emission corrections. ▪ Must have option for anisotropy vs. emission, excitation wavelength vs. time, vs. temperature vs. single point. ▪ Software should have the following features: zooming & scaling, contour, 3D plots, standard arithmetic, 3D perspective, smoothing, deconvolution, interpolation & extrapolation, and normalization. ▪ Software should have in-built global data analysis platform. ▪ Must integrate Multigroup options for sequential runs and repeated fluorescence experiments. Multigroup should include delays, temperature ramps, and multiple samples & wavelengths groups. ▪ Software should have built-in batch mode for automated repetitive experiments.
12	Accessories	▪ Solid sample holder: designed for viewing front-face fluorescence of thin films, powders, pellets, paper, fibers, or microscopic slides. Includes variable alignment angle facility for the optimization of the signal. ▪ 3.2-inch (81mm) internal integrating sphere (barium sulfate, for PLQY measurement in the 320-1500nm region) mounted in easily changeable sample tray without any fiber coupling ▪ Peltier temperature-controlled single sample holder receiving standard cuvettes (12.5x12.5mm external) for the



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		temperature control of the samples from -15°C to +105°C. ▪ Polarization accessory: L-format fully automated dual Glan-Thompson polarizers (>250nm) polarizers. Located at the entrance and exit of the sample compartment for optimum extinction ratio and sensitivity ▪ liquid nitrogen cooled InGaAs detector (800-1700nm at RT, 800-1550nm at LN2 temperature) ▪ Suitable long pass and ND filters with appropriate holder/adaptor
13	Future upgrade	▪ Should have future upgradable options for time-resolved fluorescence measurement with time-resolution <150 ps & up to 100 MHz laser repetition rate.