TENDER INVITATION NOTICE (Re-Tender)

Department of Chemistry, University of Kerala, Kariavattom,

Thiruvananthapuram-695581

Email: chem12uniker@gmail.com

No. DC/ST/30/Eq/2025-26 dated 22/01/2026

Sealed tenders (Re-tender) are invited from the authorized dealers for supply, installation and commissioning of **Laser Diodes** in the Department of Chemistry, University of Kerala, Kariavattom, Thiruvananthapuram-695581 in connection with the implementation of the research project "Establishment of Microfluidic Devices Research Laboratory" proposed under the State Plan Grant for the year 2025-26.

Last date of submission of Quotation-30/01/2026

Laser Diodes

System Overview

1. 25 mW, 808 nm Alignment Laser Diode

An alignment laser diode required to provide a stable near-infrared laser beam for precise optical alignment and positioning in spectroscopic and imaging setups. An 808 nm alignment laser diode adaptable for accurate alignment of excitation and detection optical paths with microfluidic channels, ensuring precise, reproducible, and reliable on-chip optical measurements.

Technical Specifications

Sl. No	Description	Specification
1.	Wavelength	808 nm
2.	Output Power	25 mW
3.	Operating temperature	10-50 °C
4.	Wavelength tolerance	±5 nm
5.	Modulation Frequency	0-10 kHz
6.	Color	Infrared
7.	Beam Diameter	Approx. 2×4 mm
8.	Length	36 mm

9.	Operating Voltage	5 V
10.	Beam divergence	<5.0 mrad
11.	Laser class	CDRH: III.B
12.	Focus	Adjustable focus
13.	Warranty	A comprehensive warranty of minimum of three years from the date of installation should be provided. During the warranty period, there should be two mandatory service visits per year. On-site service with required spares/consumables shall be ensured during the warranty period.

2.1064 nm 50mW Low-Cost Turnkey Laser

System Overview

The 1064 nm, 50 mW turnkey laser near-infrared excitation source required for upconversion nanoparticles integrated into microfluidic chips, enabling low-background, high-sensitivity fluorescence detection of biomolecules. It is applied in photodynamic therapy and optothermal studies, where controlled NIR irradiation under laminar flow conditions allows precise evaluation of therapeutic response, reaction kinetics, and cell viability on chip.

Technical specifications

Sl. No	Description	Specification
1.	Wavelength	1064.00 nm
2.	Color	infrared
3.	Pointing Stability after Warm Up	<0.05 mrad/°C
4.	Power stability	<2% RMS over 4 hours
5.	Wavelength Tolerance	±1 nm

6.	Warm-Up Time	<10 min
7.	Power Requirement:	85-264 VAC
8.	Modulation Frequency	1-10 kHz
9.	Beam Diameter	Approx. 1.5 mm
10.	Laser Class	CDRH: IIIb
11.	Beam Height from Base plate	Approx. 20-25 mm
12.	Mean Time to Failure MTTF	>10,000 hours
13.	Laser safety	The lasers must ensure standard safety precautions for transportation and use
14.	Warranty	A comprehensive warranty of minimum of three years from the date of installation should be provided. During the warranty period, there should be two mandatory service visits per year. On-site service with required spares/consumables shall be ensured during the warranty period.

*Sealed tenders should reach The Assistant Professor and Head, Department of Chemistry, University of Kerala, Kariavattom, Thiruvananthapuram-695581 on or before 20/01/2026.

The cost of tender form and EMD(Earnest Money Deposit) should be submitted as Demand Draft(DD) issued from a Nationalised & Scheduled Commercial Bank, drawn in favour of the Assistant Professor and Head, Department of Chemistry payable at SBI, Kariavattom Campus(IFSC code SBIN0070043).

Cost of Tender Form	INR 1180/-
Earnest Money Deposit	INR 5000/-

The cost of tender form will not be refunded and the separate DD towards the cost of the tender form and the EMD should be submitted. The compliance statement should be submitted that includes all parameters in specification, as detailed in Tender Document.

General Terms and Conditions:

1. Quotes should be inclusive of cost, freight, taxes etc. and should be delivered at the Department of Chemistry, University of Kerala, Kariavattom.
2. Incomplete & conditional quotations and quotations received after the due date will be summarily rejected without assigning any reasons thereof.
3. The undersigned reserves the right to reject or accept the quotation without assigning any reason.
4. **Installation and Commissioning**: The items shall be installed and commissioned at the Department of Chemistry, University of Kerala, Kariavattom Campus. The supplier should bear all incidental expenses.

5. **Payment:** The University will release the payment only after inspecting the equipment and satisfy that the supply is as per the requirements. The payment will be made after successful completion of the supply and producing invoice in duplicate.
6. **Validity of tender**: Tender submitted shall remain valid at least for 90 days from the date of opening the tender. Validity beyond three months from the date of opening of the tender shall be by mutual consent.
7. The model number, make, and a printed literature of the product shall submit positively.
8. A signed compliance matrix (on specifications and conditions) should be submitted along with the quote.
9. In case of the dispute arises; the decision of University authority shall be final and binding on bidders.
10. General rules relating to the purchase of materials/equipment will also applicable to this quotation.
11. Those who are interested should send their **bid along with the Tender document (sealed and signed in each page), separate DD towards the cost of the tender form and the EMD, Compliance statement and the technical specification/brochure** in a sealed cover superscribed with **"Quotation for Ref. No: (……) Equipment Name: (……..)"** and addressed to **The Assistant Professor and Head, Department of Chemistry, University of Kerala, Kariavattom Campus, Thiruvananthapuram-695581, Kerala** on or before **30/01/2026. The tenders will be opened at the Department of Chemistry at 3.30 PM on the same day in the presence of vendors then present.**

Sd/-
The Head
Department of Chemistry
University of Kerala