

Particle Size Analyser
NATIONAL INSTITUTE OF TECHNOLOGY
KURUKSHETRA-136119

No. SCH/19/02 / 5406

Dated: 11/09/19

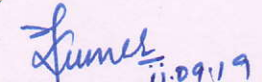
M/s Institute website

Sub: INVITATION OF QUOTATIONS FOR PARTICLE SIZE ANALYZER.

1. You are invited to submit your most competitive quotation for the following goods:

Sr. No.	Brief Description & Specifications of Goods	Quantity
1.	Particle Size Analyzer <i>(Detailed Specifications are attached)</i>	01 No.

- The bidder must provide detailed specification of each item. Model numbers, data sheets and brochures must be included for quoted item. Specifications corresponding to quoted model number must be available publicly via OEM's website for scrutiny. If not, bid can be disqualified on technical grounds.*
- Payment will be made Online through RTGS/NEFT within 30 days after receipt of material in good condition and according to specifications and installation of the same. The Bank detail for making online payment may be indicated in the quotation.
- The supplier shall deposit Earnest Money along with the Quotation amounting to Rs. 40000 /- in shape of Accounts Payee Demand Draft/Fixed Deposit Receipt/Bankers Cheque or Bank Guarantee from any scheduled commercial Bank in favour of the Director, National Institute of Technology, Kurukshetra. The Quotations without Earnest Money shall be rejected, the EMD will remain valid for a period of 45 days beyond the final validity period of quotation.
- Performance Security @ 5% of the total value of the equipment must be furnished in shape of Demand Draft/Fixed Deposit Receipt or Bank Guarantee from any scheduled Commercial Bank in favour of the Director, NIT Kurukshetra valid up to 60 days after the date of completion of warranty by the successful bidder.
- The items must be supplied within delivery period or delivery period extended by the Institute on the request of the supplier on genuine grounds otherwise the penalty for delayed period @ 0.5% of the amount shall be charged for every week or part thereof and the maximum 10%. The request for extension of delivery period (if any) must be made before the last date of supply as per P.O.
- Vide Notification No.45/2017-Union Territory Tax (Rate) and 47/2017- Integrated Tax Rate dated 14.11.2017 issued by the GoI Ministry of Finance, Department of Revenue towards exemption of GST, NIT Kurukshetra is eligible to get concessional GST (i.e. 5% in all cases) for the items which are supposed to be used in research activities of the Institute.
- The goods are required exclusively for Research Purpose.
- The quotation should remain valid for a period not less than 90 days from the date of submission.
- The firm must have got GST No. printed on their quotation.
- The right of accepting or rejecting any quotation and to cancel the bidding process and reject all quotations without assigning any reason is reserved with the Institute.
- The supplier must attach copies of two latest purchase orders of the same equipment (preferably from IITs/NITs) indicating the price for the equipment.*
- The due date for receipt of quotation is 10.10.2019 and will be opened on next working day at 10:00 AM. Please quote on the top of the envelope our Ref. No. and due date of opening.


Prof-Incharge (Stores)

Particle Size Analyser

TECHNICAL SPECIFICATIONS

- **Parameters to be measured:** Computer based system for Particle Size and Zeta potential measurement
- **Temperature control range:** 0°C to 90°C
- **Condensation control:** Purge using dry air
- **Laser Source:** Red laser 600 – 660 nm or 510-540 nm; He-Ne Laser/diode laser with suitable power (10mW or higher). Laser with lower than 10mW power is not acceptable
- **Detector:** High resolution Photo Diode or PMT/APD
- **Solvent compatibility:** Aqueous and organic

PARTICLE SIZE MEASURING RANGE

- **Measuring principle:** Dynamic Light Scattering (DLS)
- **Range:** 0.4 nm to 9 µm (hydrodynamic diameter) or better
- **Maximum concentration:** 40 % w/v or better
- **Measurement angles:** Fixed angles – Back angle 165° or higher (Optional: provision to vary the position of scattering volume within Cell/Cuvette to minimize multiple scattering effect.)
- **Minimum concentration (protein):** 0.1 mg/mL (lysozyme)

ZETA POTENTIAL MEASUREMENT SPECIFICATIONS

- **Measuring Principle:** Electrophoretic Light Scattering
- **Range:** +/- 200 mV or better
- **Maximum sample conductivity:** 200 mS/cm or better
- **Zeta Potential Size range:** 5 nm – 100 µm or better
- **Maximum sample concentration:** 40 % w/v or better
- **Minimum sample volume:** 150 µL or less
- **Cuvette Type:** Disposable, reusable and Organic solvent compatible

MOLECULAR MASS MEASUREMENT SPECIFICATIONS (optional)

- **Measuring Principle:** Static Light Scattering or Dynamic Light Scattering
- **Molecular-mass range:** 1000 Da – 20 MDa or better

STANDARD SUPPLY WITH INSTRUMENT

Accessories: i5-Desktop computer with 24^{inch} monitor with preinstalled software for measurement

For particle size:

- 200 Nos of disposable type and 1 Nos of Quartz Cuvettes
- 1 no of micro Quartz cuvettes with sample volume of 50 microlitres or less
- Standard - 1 No 100 nm or 220 nm NIST traceable standard

For Zeta Potential:

- 20 Nos of Re -usable type or 50 Nos of Disposable cuvettes for Aqueous base samples
- 1 No Organic solvent compatible Cell
- Standard - 1 No Zeta potential reference material



Prof-In-charge (Stores)