

# भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित सैक्टर 81, नॉलेज सिटी, पी. ओ. मनोली, एस. ए. एस. नगर, मोहाली, पंजाब -140306 INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH MOHALI Sector-81, Knowledge city, PO-Manauli, SAS Nagar Mohali-140306, Punjab PAN NO. - AAAAI1781K TAN NO. PTLI10692D

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CPPP/Institute Website/Newspaper

## **E-TENDER NOTICE**

Tender Ref IISERM(747)16/17Pur	Dated :- 27 <sup>th</sup> February 2017
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## **Critical Date Sections**

Sr. No.	Description	Date	Time
1.	Tender Publishing Date and time	27 <sup>th</sup> February 2017	5pm
2.	Tender Document download start Date &	27 <sup>th</sup> February 2017	5pm
3.	Bid Submission start Date &Time	27 <sup>th</sup> February 2017	5pm
4	Bid Submission End date and Time	16 <sup>th</sup> March 2017	Up to 2pm
5.	Tender opening Date and Time	17 <sup>th</sup> March 2017	At 4pm

Online tenders are invited on behalf of Director, IISER Mohali in **TWO BID SYSTEM** {Technical and Commercial separate} for following item(s) from the original manufacturer/supplier at CPPP i.e. https://eprocure.gov.in/eprocure/app. Tender documents may please be downloaded from the E-procurement portal website https://eprocure.gov.in/eprocure/app & Institute website http://www.iisermohali.ac.in. Tender fee in shape of DD/Banker Cheque of Rs 500/- (Non-refundable) and EMD of Rs 50,000/- should be submitted by DD /Banker Cheque/FDR/ Bank Guarantee in favour of the Registrar, IISER Mohali payable at Mohali. However, scanned copy of the both tender fee and EMD should be upload on website along with technical bid part. The hard copy of the same in original to be send to the address mentioned below duly superscribing the supply/work name and reference/ tender ID on the envelope and same must reach before opening the bid and if not received within due date the bid will be rejected summerly.

### The Original EMD and tender fee should be sent to

Assistant Registrar (S&P) Indian Institute of Science Education and Research, Mohali Sector 81, SAS Nagar, Mohali, Punjab, India, Pin: 140306

Non-receipt of original EMD and tender fee will lead to rejection of tender.

## Item Details: -

# Sr. Description Qty

# 01 **Dynamic Light Scattering Nano Particle Size analyzer**

PC controlled system for measurement of particle size, zeta potential and molecular weight of dispersed particles/molecules in solution.

It should have in-built facility for flow mode operation with size-exclusion chromatography (SEC) to enable connection of 1 or 2 external detectors and a remote measurement start. Ability to use same instrument for in-process studies would be advantageous. The laser power used should be of low intensity such as 4mW or so at 6round 600 nm so as to not produce any thermal convection in the sample during the measurement of its Brownian Diffusion.

The optics must be fully pre-aligned with no user adjustment required. Measurement Type: Particle size, Molecular weight and Zeta potential

- Size range: 0.3 nm 5 μm.
- Power Source: 4 mW, 633nm He-Ne Laser
- Minimum Concentration: 0.001% w/v to cover all research oriented w/v concentrations (up to 10% w/v)
- Minimum Sample volume requirement: 20-30 μL.
- Size Measurement Angle: 90°
- Zeta potential measurement range between -500 mV to +500 mV.
- Size range for zeta potential: 4 nm to 100 μm
- Mobility range:  $\pm 20 \,\mu.\text{cm/V.s}$
- Conductivity range: 0 to 200 mS/cm
- Temperature range: 0 °C to 90 °C with an accuracy of  $\pm 0.1$  °C.
- Detector: Avalanche Photodiode Detector (APD)
- The Zeta Potential measurements should be performed by phase analysis light scattering combined with the mixed-mode measurement for accurately measuring the zeta potential of high and low mobility samples.
- Digital Auto-correlator with minimum sample time of 25 ns with 4000 or more size channels
- The system should have the capability to get attached with an existing GPC/HPLC system and to work as a light scattering detector for molecular weight analysis.
- The instrument should use completely disposable cuvettes for particle size, zeta potential & molecular weight measurements and should include disposable cuvettes for sizing and zeta potential and glass cuvettes.
- Molecular weight range should be from  $10^3$  Da to  $2x10^7$  Da
- Option to add Autotitrator for pH, conductivity and additive titrations should be available.
- Optional Solid Surface Charge Measurement Cell: Cell for measuring solid surface charge (e.g. nano coatings, thin films etc.) should be available.

#### Flow measurements

- SEC detector mode option including analogue input from two detectors, and trigger input
- Switch between batch and flow measurements must take less than 1 minute.

## **Software**

- The software must be compatible to incorporate data from different systems such as Nano Tracking Analysis System (when counting of particles becomes more important) to incorporate data form the same for dynamic light scattering studies.
- The software must be compatible with Windows 7 operating systems (PC should be supplied accordingly, see below).
- Data export must be available to word processing packages or spreadsheets
- Access to all measured data including correlation functions, fitted data points, residuals and all experimental parameters must be available and stored for subsequent examination and recalculation.
- The calculation of the cumulates mean defined in ISO13321 must be used.
- The software should have an option for users to assess the 'quality of data' generated and should be able to provide 'advice' to users.
- The price should include installation, training, software on CD, manual, power cable, USB cable and spare fuses.
- In addition to standard 1 year warranty, Annual Maintenance Contract for 2 years after warranty period should be included in the price.
- Suitable computer and online UPS should be supplied along with the instrument and should be included in the price.
- Optional Accessories:

Quote for the followings as optional items:-

- Autotitrator: Optional Autotitrator to automate the measurement of size and zeta potential as a function of pH, conductivity or additive concentration.
- High concentration zeta potential cell: To enable the zeta potential measurement of more concentrated samples than the folded capillary cell or dip cell.
- Ability to interface with other techniques such as Raman etc. would be advantageous.

#### **SUBMISSION OF TENDER**

I. All bid/ tender documents are to be uploaded online at Central Public Procurement portal i.e <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a> only and in the designated cover/part on the website against tender ID. Technical bid and financial bid shall be submitted in the designated online cover/part. Tenders/ bids shall be accepted only through online mode and no manual submission of the same shall be entertained except tender fee and EMD. Late tenders will not be accepted.

- II. The online bids shall be opened at the office of the Assistant Registrar (P&S), IISER Mohali, on above given date. If the tender opening date happens to be on a holiday or non-working day due to any other valid reason, the tender opening process will be attended on the next working day at same time and place. IISER Mohali will not be responsible for any error like missing of schedule data while downloading by the Bidder.
- III. The bidder shall upload the tender documents duly filled in and stamped by the authorized signatory on each and every page. Tender not submitted/uploaded in the prescribed form and as per the tender terms and conditions shall be liable for rejection.
- IV. The bidder shall upload scanned copy of the TIN number, PAN Card, VAT registration certificate/VAT return, Service tax registration number duly signed and stamped.
- V. E-procurement system ensures locking on the scheduled date and time. The system will not accept any bid after the scheduled date and time of submission of bid.

## **INSTRUCTIONS**

- 1. The Online bids should be submitted directly by the original manufacturer/supplier, If quotation is submitted/filled by any representative/agent/dealer then they must upload a authority certificate from the principal company for quoting the price otherwise such quotation will be rejected. The product should be ISO certified.
- 2. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute. Before the deadline for submission of the online bid, IISER Mohali reserves the right to modify the tender document terms and conditions. Such amendment/modification will be notified on website against said tender ID
- 3. The rates offered should be FOR Chandigarh/Mohali in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Supplier from outside India should mention the Ex-works/FOB/FCA/CIF/CIP price clearly. Conditional tenders will be summarily rejected.
- 4. In case of Ex-godown terms the amount of packaging forwarding freight etc should clearly be indicated by percentage or lump sum amount. Institute has policy not to make any advance payments towards any purchase, Letter of credit can be opened if required.
- 5. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY under notification no- 51/96 –CUSTOM DATED 23/7/1996 AND DSIR REGISTRATION NO TU/V/RG/- CDE(1062)/2011 DT. 02/09/2011 / EXCISE NOTIFICATION NO. 10/97- CENTRAL EXCISE DT. 01.03.1997.
- 6. Tax: This Institute is not exempted from the payment of Sales Tax/Service Tax/VAT. The current rate (i.e. percentage of Sales Tax should be clearly indicated included or excluded) wherever chargeable. Please also provide/upload the copy of PAN card, TIN number, Service tax number, Sales tax number duly self-attested.

- 7. The delivery period should be specifically stated. Earlier delivery will be preferred
- 8. The firms are requested to provide/upload detailed description and specifications together with the detailed drawings, printed leaflets and literature of the article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.
- 9. Validity of offer: 90 days. The warranty period after satisfactory installation should be mentioned and firm should replace all manufacturing defect parts/ whole item under warranty without any extra cost including clearance, freight, taxes. Security deposit/ Bank Performance Guarantee @ 10 % of the value of supply order as per norms may be sought from the firms.
- 10. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved by the IISER Mohali. For any corrigendum and addendum please be checked the website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a> and <a href="https://ewww.iisermohali.ac.in">https://eprocure.gov.in/eprocure/app</a> and <a href="https://ewww.iisermohali.ac.in">https://eprocure.gov.in/eprocure/app</a> and <a href="https://ewww.iisermohali.ac.in">https://eprocure.gov.in/eprocure/app</a> and <a href="https://ewww.iisermohali.ac.in">https://eprocure.gov.in/eprocure/app</a> and <a href="https://ewww.iisermohali.ac.in">https://ewww.iisermohali.ac.in</a>
- 11. Disputes, if any, shall be subject to jurisdiction in the court of Mohali only.

-sd-(Mukesh Kumar) Assistant Registrar (S&P)