



मुंबई विद्यापीठ

Department of Biophysics, University of Mumbai, Vidyanagri, Santacruz (E), Mumbai 400098

Tel- 022-26524288, 26543492

Email- [head.biophysics@mu.ac.in](mailto:head.biophysics@mu.ac.in)

**Tender Document**

**No: Biophysics/Tender/01/2015-16/ PSA**

**PARTICLE SIZE ANALYZER (PSA)**

---

**18<sup>th</sup> February 2016**

**Part A- Terms and Conditions**

**Part B- Specifications**

**Price- Rs 500/- (non-refundable)**

**Important Dates:**

Last date of Sale of Tender Document	2nd March 2016
Last Date of Receiving sealed Bids:	4 <sup>th</sup> March 2016, 4.00 pm

Dept of Biophysics,  
University of Mumbai, Vidyanagari,  
Santacruz (E), Kalina, Mumbai 400098

Wax Sealed Tender bids for **PARTICLE SIZE ANALYZER** for the Dept of Biophysics are invited for and on behalf of University of Mumbai by the head of the dept so as reach in the office latest by **4<sup>TH</sup> March 2016, 4.00PM**

Tender Document containing terms and conditions and technical specifications are available in the Office of the University Dept of Biophysics, University of Mumbai, Vidyanagri, Santacruz (E), Mumbai 400098, on all working days between 11.00 a.m. & 4.00 p.m. from **18<sup>th</sup> February 2016 to 2<sup>nd</sup> March 2016**. Terms & conditions and technical specifications can also be downloaded from <http://www.mu.ac.in/tenders.html> The tender bids duly complete (with tender document fees) in all respects, along with the necessary documents should be submitted to the above mentioned address, latest by 4.00 p.m. by **4<sup>th</sup> March 2016**.

The Right to reject any or all tenders, without assigning any reason is reserved by the University of Mumbai.

Head Dept of Biophysics

University of Mumbai

## Part A - Terms and Conditions

Quantity-1 (One)

### Terms and Conditions of Supply:

1. Last date and time for acceptance of bids is **4<sup>th</sup> March 2016, 4.00PM**
2. Suppliers shall submit the following documents along with their quotations.
  - (a) Income- Tax clearance certificate from the Income-Tax Officer concerned, certifying that the tenderer has cleared all the Income-Tax dues.
  - (b) Suppliers should be either manufacturer or authorized dealer of the said equipment and should submit the proof for the same. Also, the suppliers should state whether they are a Proprietary Firm, Partnership Firm or a Private/Public Limited Company and furnish the proof of the same.
  - (c) The names of the organizations and laboratories to which similar equipment have supplied.
  - (d) Earnest Money Deposit shall be in the form of a Demand Draft drawn in favour of **“Finance and Accounts officer, University of Mumbai, Mumbai ”** on any Scheduled/ Nationalized Bank, payable at Mumbai. The amount of Earnest Money Deposit shall be 3% of the cost of supply subject to maximum Rs 1 lakh.
  - (e) VAT Registration No.
  - (f) Technical specifications offered by the Supplier.
  - (g) Technical compliance table
  - (h) Propriety certificate, if any
3. The rates should be mentioned in the **Schedule** attached with the Tender Document. Each page of the tender shall be signed in full and stamped with the seal by the supplier. The supplier must clearly state in what capacity he or she is signing the tender.
4. The supplier shall submit the tender in two envelopes. The first envelope (Technical Bid) shall contain all the documents referred to in **para two above** and sealed. The second envelope (Commercial Bid) shall contain the **Schedule**, in which the supplier shall register the rates of supply. The second envelope shall also, likewise, be sealed. Both the envelope then should be put together, and shall be sealed in an envelope, and shall prescribed time and date. The Technical Bid shall be opened first to ensure that supplier have submitted all the requisite documents.

If the Technical Bids are not in order or are deficient in some respect, the commercial bids in respect of such tenders shall not be opened. The date and time of opening the financial bids shall be announced immediately after opening all the Technical bids.

5. Tender bids not accompanied by the requisite amount of Earnest Money Deposit are liable to be rejected

6. The Earnest Money Deposit paid by the supplier shall be forfeited, if the supplier fails to pay the necessary security deposit in the event of his tender being accepted.

7. The amount of Security Deposit/Performance Guarantee shall be 5 % of the cost. In case of successful tenderer the amount of Earnest Money Deposit shall be converted in Security Deposit/Performance Guarantee. Security Deposit/Performance Guarantee shall be refunded after the warranty period is over. The Security Deposit/Performance Guarantee can be paid in the form of a Bank Guarantee from a scheduled bank.

8. Supplier should read carefully all the instructions and terms and conditions, etc before registering rates in prescribed schedule of the tender. Taxes and duties etc., should be shown separately.

9. The offers made by the suppliers shall be open for acceptance within 120 days after the last date of submission of tender.

**10. The Technical Documents shall be opened by the Head of the departments of Biophysics, Vidyanagri, Santacruz (E), Kalina, Mumbai** for those bids for which minimum three Vendors have participated. The tenderers or their authorized representatives shall be allowed to be present at the time of opening of the tenders. Financial bids of only qualified tenderers shall be opened.

Tender opening (if minimum 3 bids are received), first extension of two weeks starts, if less than 3 bids are received in the 1<sup>st</sup> extension, last date of the first extension (opening of the technical bids on the same day, if 3 bids received), second extension of the second week starts if less than bids are received in the first extension, last date of second extension (opening of technical bids on same day even if less than 3 bids are received.)

The date and time of opening the bids (technical as well as financial) shall be announced on the Mumbai University website / telephonically after the last date of the receipt of the tenders

11. In case of imported items/equipments, the rates should be quoted in the light of exemptions enjoyed by educational institutions. University is exempted from the payment of Octroi and the necessary certificate/form can be issued by the University. The customs duty applicable to the University of Mumbai is maximum 5% of the invoice.

12. Technical specifications of the instruments/equipments/articles are given in **Annexure** to these papers (Part B). Vendors are required to fill the Part C appropriately after studying the technical specifications as in Part B

13. The delivery, installation & operational training of the instruments/equipment should be completed within 3 months from placing of the order, in case of the imported equipment and within 15 days if the instrument/equipment is made in India. No extension shall be granted to the contractors/suppliers for the period of delivery, under any circumstances.

14. If the supplier fails to deliver the article as per the delivery schedule, the University of Mumbai shall be free to procure the balance/undelivered supply, at the risk and cost of the supplier, from other such suppliers

15. The goods, articles, materials supplied by the supplier shall be accepted after inspection by an officer authorized by the competent authority. No articles/materials which do not conform to the specifications laid down in the terms and conditions or damaged in transit be accepted.

16. The bills of the suppliers shall be paid by the University after all the materials /articles/equipments have been received, inspected as above.

17. Vendor must submit Compliance statement in tabular form comparing each specification of the quoted item with that given in the Tender Document part B. The Vendor also must supply a soft copy of the Table only Microsoft in word 2007 format or latest if any.

18. If the equipment is imported and requires PC, printer other peripherals, they can be bought from India and should be of International brand. The monitor should LCD/TFT screen. The printer should be LaserJet printer. The processor should be Intel Core2 Duo. The amount quoted for the items bought in India, installation; servicing etc. can be in Indian Rupees and the imported items can be quoted in foreign currency.

**19. The warranty period shall be for three years.**

20. As the suppliers shall be responsible for the supply and installation (wherever necessary) of equipment at Mumbai, the cost towards insurance until destination in the University, shall be borne by suppliers.

21. In the event of any breach of the terms and conditions of the supply, the University of

Mumbai may terminate the contract placed with the supplier and forfeit the security deposit or the supplier.

**22. Proprietary certificate, if any, should be included in the technical bid.**

23. The basic operator training should be provided by the competent Engineer during the time of installation

24. Charges for AMC after one year of warranty for next four years (minimum 4 visits per year) should be clearly mentioned separately as optional item. A list of all the necessary accessories required to make the unit functional should be provided. Names and phone numbers of the persons responsible for Sales and Service for this territory should be mentioned.

**SCHEDULE TO TENDER**

Note:

1. Tenderers are advised to read carefully the Terms and Conditions of supply and "the Instructions to the Tenderers" before recording the rates in this schedule.
2. No erasures or overwriting shall be allowed, unless they are authenticated under the full signature and the seal of the tenderer.
3. The Rates shall be FOR, at destinations/godowns/places indicated in the delivery

Item no	Description of goods with details of specifications	Number/ quantity	Price/Ra te per Unit	Taxes	Duties	etc

**Signature of the Tenderer**

**Seal of the Firm**

## PART B

### Technical specifications

#### Particle Size Analyzer (PSA)

<b>Particle size measurement</b>		
Sr No	Particulars	Specifications
1	Principle	The measurement principle should be dynamic light scattering based in Brownian motion
2	Size range	1 nm to 5.0um
3	Control system	System must with automated measurement controlled with software control
4	Temperature	The system must have temperature controlled using peltier, temperature range: 5 <sup>0</sup> C – 80 <sup>0</sup> C and expandable up to 120 <sup>0</sup> C
5	Detectors	The system should use an avalanche photodiode detector
6	Laser	He-Ne laser (632nm to 633 nm)
7	Power	3mW - 4mW
8	Angular measurement	Forward angle for Zeta potential 90 degree For particle size analysis
9	Alignment of Optical system	System should have fully pre-aligned with no used adjustment required.
10	Sample volume	The system should include a measurement cell capable of handling both aqueous and organic solvents. Volume range: 10-20ul.
<b>Zeta potential measurement</b>		
11	Measuring range	Zeta potential range: Upto +/- 500mV. It must possible to measure the zeta potential of particles in the size range of 4 nm to 100microns
12	Principle	Laser Doppler velocimetry or better technique.
13	Sensitivity	Maximum Size ( molecular weight ) for protein.
14	Mobility	Better mobility.
15	Conductivity	The conductivity range must be 0 to 190 mS/cm.
16	Measurement type	The system should have option of low volume that will enable to measure aqueous and non-aqueous solvents.

17	Molecular weight measurement range	$1 \times 10^3$ to $2 \times 10^7$ Dalton's
18	Digital Correlator	The system should have maximum number of channels on correlator.
19	Purge Facility	Purging of Dry Air for condensation control.
20	Software	Research based software with advance version.

**Optional Accessories:**

01	Autotitrator	Auto titration to maintain pH, conductivity variation and for external additive.
02	Reusable Cell	Resuable cell for measurement
03	Band filter	To improve S/N ratio for fluorescent samples

**Note: please mention separate cost of optional accessories.**

**PART C**

Tick the appropriate specifications whether provided or not columns in the columns as below and highlight the specifications if provided in the equipment brochures that are to be attached.

Specification offered by Department	Specifications provided by the vendor		
	Compiled	Specified	Remarks