**DEPARTMENT OF MATERIALS ENGINEERING**
(Formerly Department of Metallurgy)
INDIAN INSTITUTE OF SCIENCE
BANGALORE - 560 012, INDIA
A Centre for Advanced Study Supported by the University Grants Commission

03/02/2026

# Corrigendum: Amendment of Technical Specification

**Tender Notification Ref No.: MT/ENQ-GTE/PAIR/BU-AMR/25-26/14 dt. 28/01/2026**

"**Zetasizer**"

**Amendment of Technical Specification as below.**

Thanking you,

Praveen Kumar

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## Technical Specifications for Zetasizer

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| **Parameters to be measured:** Particle Size, Zeta potential, Molecular mass of Colloidal suspensions, emulsions & dispersions, A2 (Second Viral coefficient).<br>System shall be suitable for water, ethanol, aqueous and organic solvents. |
| **Temperature control range:** minimum 0 ºC & maximum 120 ºC. |
| **Condensation control:** Purge using dry air/ inert shall be preferred |
| **Laser Source:** HeNe Gas Laser/Semiconductor laser with power 10 mW or more in wavelength range 450 nm to 700 nm. |
| **Detector:** High resolution Avalanche Photo Diode Detectors/ Photomultiplier tube (PMT) |
| **Particle Size analysis** |
| **Measuring principle:** Dynamic Light Scattering |
| **Size Range:** 0.3 nm to 10 μm or better |
| **Maximum concentration:** 40% w/v |
| **Measurement angles:** Fixed three angles (side, back and forward) for Particle size measurement. |
| **Minimum concentration:** 0.1 mg/mL (lysozyme) |
| **Zeta Potential Measurements** |
| **Measuring Principle:** Electrophoretic Light Scattering |
| **Zeta Potential Range:** > +/- 500 mV |
| **Sensitivity:** 0.1 mg/mL (lysozyme / protein) or better |
| **Maximum sample conductivity:** 200 mS/cm or better |
| **Zeta Potential Size range:** 4 nm – 100 μm (diameter) or better |
| **Maximum sample concentration:** 50% w/v |
| **Cuvette Type:** Disposable with 650 μL capacity. |
| **Signal Processing:** cmPALS or M3 PALS |

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| **Molecular Mass Measurements** |
|---|
| **Measuring Principle:** Static Light Scattering |
| **Molecular-mass range:** 500 Da – 20 MDa or better |
| **Software Specifications** |
| Single page, Intuitive, file-based analysis software with provision of offline recalculations and data export in csv and pdf format. Software should have database of solvent and material information like absorbance, refractive index etc. which can be editable to add new information. |
| **Compliance & Standards:** ISO 22412:2017, ISO 13099-2:2012, USP 430 |
| **Warranty:** 3 Years |
| **Vendor shall provide following Consumables**: |
| 1. Disposable Cuvette for size for Aqueous Solvents - Qty –1 (1Pack of 100 Nos.) |
| 2. Disposable Cuvette for Zeta & Size for Aqueous Solvents – Qty- 1 (1Pack of 10 Nos.) |
| 3. Quartz Cuvette for Size for Aqueous and Organic Solvents- Qty- 1 No. |
| **Computer specifications:** Desktop/Laptop with Intel i5 professor or better, more than 2.4 GHz Turbo, at least 8 GB RAM, 512 GB SSD, 21inch min. TFT display, 2 or more USB 3.0, 4 or more USB 2.0 (or better); 1 VGA; 2 display port, Operating system: Windows 10/11 with 64bit or better.<br>**UPS:** 3KVA with 15 mins Backup. |
| • Vendor should have the proof of **satisfactory number of installations of the similar model instrument in the country. User list and reference letters must be provided**.<br>• The specification, technical catalogue/brochure of the model and their authentication by company website/catalogue/ brochure must be provided.<br>• If the need, the qualifying bidders may be required to place the demo model of the quoted equipment in the Department for testing the efficiency of the equipment. Based on the efficiency and the results obtained the technical committee may further |


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disqualify the vendors and shortlist the vendors whose financial bid will then be opened.

- The service engineer must be based in Karnataka and should be available to provide support within a quick turnaround time.
- Performance or end-user certificates from reputed institutions such as IISc, IIT, NCBS, CFTRI or equivalent national/central/state Institutes or Universities should be enclosed.

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