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**Enquiry No.: IICB/PUR/24-25/599/647/303**

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**Corrigendum Notice**

It is hereby informed that the tender for supply, installation and commissioning of Multimode Microplate Reader has been published in NIC CPP Portal (<https://etenders.gov.in/eprocure/app>) vide tender ID 2024\_CSIR\_214697\_1. In this regard following corrigendum may kindly be noted before participating.

1. Revised technical specifications are mentioned at **Annexure A**. Please submit your bid accordingly.
2. All other terms and conditions will be remained unchanged.

  
**Controller of Stores & Purchase**  
**For & On Behalf of CSIR**



#### Annexure-A

##### **Technical specifications for multimode microplate reader (Revised after pre-bid meeting)**

- i. The instrument should be a monochromator-based for the measurement of UV-visible absorbance, fluorescence intensity, luminescence, time-resolved fluorescence (TRF) & Fluorescence Polarization (FP).
- ii. The system should read the plate formats of 6, 12, 24, 48, 96 and 384 wells.
- iii. System should read any standard commercially available vertical cuvette port for measuring Absorbance, Fluorescence & Luminescence.
- iv. Light source: Xenon flash lamp
- v. The instrument should have incubation temperature control of 3 °C above ambient to 42 °C or even higher.
- vi. The instrument should have end point measurement, well scanning, kinetic reading and spectral scanning modes available.
- vii. The instrument should have both linear and orbital shaking ability with adjustable shaking speed, timing and diameter.
- viii. The instrument should have Auto Gain facility available (not the default setting in the software). It should automatically calibrate results of different gain settings to provide single consistent measurement range.
- ix. Dynamic range for fluorescence and luminescence should be  $\geq 6$  decades.
- x. The system should have dedicated detectors for all the three modes: Absorbance, Fluorescence & Luminescence.
- xi. Software: The system should be provided with data acquisition and analysis software with at least four user's licenses. The software should be able to analyze/calculate data from all the five modes (UV-visible absorbance, fluorescence intensity, luminescence, TRF & FP).
- xii. Computer and accessories: The system should be supplied with a desktop with at least i7 processor, 32 GB RAM, 1 TB SSD HDD, 24" LED Display, Key Board & Mouse, and Windows 10 Professional.

##### **UV Visible Absorbance:**

- Measurement range: 200 – 1000 nm.
- Detector: Silicone photodiode only.
- Wavelength accuracy  $\pm 2.0$  nm or better.
- Photometric precision  $< \pm 0.003$  OD or better.
- Photometric accuracy  $< \pm 0.006$  OD or better.
- The instrument should have automated and temperature-independent absorbance path length correction along with the Path-Check sensors.
- Sample volume: As low as  $\leq 2$   $\mu$ L of DNA/RNA samples can be estimated using plates.
- Bandwidth for Absorbance should be  $\leq 4$  nm for entire wavelength.



### **Fluorescence intensity:**

- Monochromator-based.
- Tunable wavelength in 1 nm increments.
- Should read from both top and bottom of a microplate.
- Excitation wavelength range: 320 – 840 nm.
- Emission wavelength range: 320 – 840 nm.
- Detector: should be ultrasensitive photomultiplier tube (PMT) detector for better sensitivity.
- The system should normalize the raw data to show Relative Fluorescence Units (RFU) values.
- Sensitivity of the fluorescence intensity should be  $\leq 1\text{pM}$  fluorescein in 384-well plates.

### **Luminescence:**

- Monochromator-based preferred.
- Tunable wavelength in 1 nm increments.
- Wavelength range: 370 – 700 nm
- Detector: should be ultrasensitive photomultiplier tube (PMT) detectors for better sensitivity.
- Sensitivity:  $\leq 50\text{pM}$  ATP in 96 wells.

### **Time-resolved fluorescence:**

- Monochromator-based.
- Tunable wavelength in 1 nm increments.
- Wavelength range: 350 – 740 nm.
- Sensitivity:  $\leq 20\text{ fM}$  europium in 96-well plates.

### **Fluorescence Polarization:**

- Monochromator-based.
- Tunable wavelength in 1 nm increments.
- Wavelength range: 350 – 700 nm.
- Sensitivity:  $\leq 3.5\text{ mP}$  in 96-well plates.

### **Other requirements:**

- i. The vendor should make the spare parts available for at least 10 years after procurement.
- ii. The instrument should be CE (European Conformity) and /or ISO (International Organization for Standardization)/ BIS approved. Proof of certification must be attached.



- iii. The system should be provided with comprehensive warranty for 3 years from the date of successful installation and commissioning.
- iv. Complete IQ, OQ and PQ must be done and the supplier should provide the instrument qualification documents.
- v. Training has to be imparted for 04 days at the time of installation and commissioning.
- vi. Printer: A laser Jet multifunctional printer should be provided.
- vii. Stabilizer: A 3-kVA voltage stabilizer with high voltage low voltage cut-off circuit, auto reset, delay timer & spike eliminator with warranty of 2 years.
- viii. UPS: A 2-kVA UPS with 60 min backup capacity and 2-years warranty.
- ix. Should have minimum 3 installations in national laboratories and/or government institutions across India.

