

Advertised Tender Enquiry Documents
INDIAN INSTITUTE OF TECHNOLOGY (BHU), VARANASI
(NOTICE INVITING TENDER)

On behalf of the Director, IIT (BHU) Varanasi, online tender from manufactures (or their 'authorized' dealers that they have been authorized to quote in response to this NIT) of the following items are invited:

Sl. No.	Tender No. and Last Date	Specifications & Quantity of the item
1.	Ref. No.: IIT (BHU)/SMST/2018-19/ELISA/183 Dated: 29-08-2018 Last Date: 25.09.2018 03:30 PM	Name of the Instrument- Multimode ELISA Plate Reader (Technical Specifications as per Annexure-3) Qty.: 01 Approx Cost: 15 Lakhs

The Tender Documents for the given items will be on Single Bid System consisting of Technical Bid and Price Bid. The Tender Documents will be submitted item-wise in online. Any firm may bid for any number of items but each offer must be item-wise in single bid cover enclosing Technical Bid and Price Bid. Manual Bid will not be accepted.

The Tender Document along with detailed specifications, terms and conditions may be downloaded from the institute website (www.iitbhu.ac.in) under Tenders (www.iitbhu.ac.in/iitnotifications/purchase_enquiries/) & <https://www.eprocure.gov.in/cppp/> by the interested supplier.

The Tender Fee for this Tender to be paid in the form of **Bank Draft** in favour of **Registrar, IIT (BHU) payable at Varanasi** before the Bid Opening Date and non-refundable Tender price of Rs. 1,000/-. The hard copy of DD for tender fee should be reached on or before the Bid Opening Date and Time at the address: The **Coordinator, School of Material Science & Technology, Indian Institute of Technology (BHU), Varanasi – 221005**.

The Tender should be addressed to The **Coordinator, School of Material Science & Technology, Indian Institute of Technology (BHU), Varanasi – 221005**, and should be submitted on or before the date and time of Bid opening date as mentioned in critical date sheet on e-portal.

The Institute shall not be responsible for any delay in submitting Bids by online. The Institute reserves the right to accept or reject any bid, cancel the Tender without assigning any reason thereof. No correspondence in this regard will be entertained.

Coordinator
School of Material Science & Technology
Indian Institute of Technology (BHU)
Varanasi- 221005

TENDER DOCUMENT FOR: Multimode ELISA Plate Reader

CRITICAL DATE SHEET

Published Date	29.08.2018 (03:00 PM)
Bid Document Download Start Date	29.08.2018 (03:30 PM)
Clarification Start Date	29.08.2018 (03:30 PM)
Clarification End Date	18.09.2018 (04:00 PM)
Pre bid meeting	NA
Bid Submission Start Date	29.08.2018 (03:30 PM)
Bid Document Download End Date	25.09.2018 (03:30 PM)
Bid Submission End Date	25.09.2018 (03:30 PM)
Financial Bid Opening Date	26.09.2018 (03:00PM)
Address for Communication	Coordinator School of Material Science & Technology Indian Institute of Technology (Banaras Hindu University), Varanasi – 221 005, U.P., INDIA E-mail: coordinator.mst@itbhu.ac.in

FORMAT OF BANK GUARANTEE FORM

1. This guarantee should be furnished by a Nationalized Bank / scheduled Bank, authorized by RBI to issue a Bank Guarantee.
2. This bank guarantee should be furnished on stamp paper of Rs. 100/-
3. The stamp paper should have been purchased in the Name of the Bank executing the Guarantee.
4. **In the case of foreign bidder the B.G may be furnished by an international reputed bank acceptable to the PURCHASER countersigned by any Nationalized / Scheduled Bank in India authorized by Reserve Bank of India.**

DATE:

BANK GUARANTEE NO:

Ref.: _____

To

Indian Institute of Technology

(Banaras Hindu University)

Varanasi-221005

Dear Sirs,

In accordance with your 'Invitation to Bid' under your Tender No: _____

M/s: _____ herein after called the Contractor/supplier, with the following Directors on their Board of Directors / partners of the firm.

- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |

Agrees for the contract/supplies:

As an irrevocable Bank Guarantee for an amount of Rs. _____ (in words and figures) valid for _____ days from _____ is required to be submitted by the Contractor/Supplier which amount is liable to be forfeited by the purchaser in the event of 1) the withdrawal or revision of the offer by the Bidder as a condition within the validity period. (2) non-acceptance of the Letter of Intent / purchase order by the bidder when issued within the validity period. (3) failure to furnish the valid contract performance guarantee by the bidder within one month from the receipt of the purchase order and (4) on the happening of any contingencies mentioned in the bid documents such as _____.

We, the _____ Bank at _____ having our Head office at _____ (Local address) Guarantee and undertake to pay immediately on first demand by IIT (BHU) the amount of _____ (in figure and words)

without any reservation., protest, demur and recourse. Any such demand made by the Purchaser shall be conclusive and binding on the Bank irrespective of any dispute or difference raised by the purchaser.

The guarantee shall be irrevocable and shall remain valid up to _____ (This date should be 6 months after execution of the order). If any further extension of this guarantee is required the same shall be extended to such required period (not exceeding one year) on receiving instruction from M/s _____ on whose behalf this guarantee is issued.

In witness whereof the Bank, through its authorized officer has set its hand and stamp on this _____ day of _____ at _____ witness _____.

WITNESS

(Signature).....

Name in (Block letters)

Designation

(Staff Code No.)

(Bank's common Seal)

Official address:

Attorney as per power of Attorney No.

Date:

DECLARATION

1. I, ----- Son /Daughter of Shri -----
----- Proprietor/ Partner/ CEO /MD/ Director/ Authorized Signatory
of M/s. ----- am competent to sign this declaration and execute this
tender document.
2. I have carefully read and understood all the terms and conditions of the tender and hereby convey my
acceptance of the same.
3. The information/ documents furnished along with the above application are true and authentic to the best of
my knowledge and belief.
4. I/ we/ am are well aware of the fact that furnishing of any false information/ fabricated document would
lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.
5. Each page of the tender document and papers submitted by my Company is authenticated, sealed and
signed, and I take full responsibility for the entire documents submitted.

Signature of the Authorized Person

Date: -----

Place: -----

Full Name: -----

Company Seal: -----

Technical Specification for Multimode ELISA Plate Reader

Multimode ELISA Plate Reader:

A multimode ELISA plate reader is required for following studies for Endpoint, kinetic, spectral scanning, well area scanning of 6 to 384 well plates.

- Fluorescence
- Luminescence
- UV-Vis absorbance
- Time-resolved fluorescence (in micro sec or better)
- Fluorescence polarization (at least in red, green, blue reasons)- Optional item (Must be quoted separately under **Optional/ Accessories**).
- UV-Vis polarization (at least in red, green, blue reasons) - Optional item (Must be quoted separately under **Optional/ Accessories**).

The ELISA plate reader is preferred to support cuvette, Petri and cell culture dishes and micro-volume Plates of following specifications:

- It must be Monochromator based system having Detectors PMT at least for Fluorescence and Polarization Studies (as mentioned above)
- Temperature control- incubation to 45°C with Condensation Control
- Shaking- Linear, orbital, double orbital etc.
- Computer controlled with users friendly free upgradable analytical software

ABSORBANCE (Approx values are given)

Light source: Xenon flash or equivalent

Wavelength selection- Monochromator

Wavelength range- 250 - 850 nm, 1 nm increments

Monochromator bandwidth- 8 nm (>255 nm) Monochromator wavelength accuracy & repeatability ± 2 nm

Dynamic range 0 - 4.0 OD with resolution 0.0001 OD and OD accuracy <1% at 2.0 OD

OD linearity <1% from 0 to 3.0 OD

Path length correction Yes

Stray light 0.03% at 230 nm

Fast Reading speed (kinetic) less than 1 min.

1. FLUORESCENCE INTENSITY (Approx values are given)

Light source Xenon flash or equivalent

Detector PMT for monochromator system and PMT for filter system

Wavelength selection Quad monochromators (top/bottom) as well as filters.

Wavelength range Monochromators: 250 - 850 nm or better

Filters: 200 - 850 nm

Monochromator bandwidth Fixed, 16 nm or better

Dynamic range 7 decades

Sensitivity Fluoresce in 0.25 pM (0.025 fmol/well, 384-well plate)- Top or better
Fluoresce in 4 pM (0.4 fmol/well, 384-well plate) – bottom or better
Reading speed (kinetic) below 1 minutes

2. LUMINESCENCE

Wavelength range 300 - 700 nm or better
Dynamic range >6 decades
Sensitivity Monos: 20 amol ATP (flash)
Filters: 10 amol ATP (flash), 100 amol (glow)

3. TIME-RESOLVED FLUORESCENCE

Light source Xenon flash
Detector PMT
Wavelength selection Quad monochromators (secondary mode)
Filters (top)
Wavelength range Filters: 200 -850 nm
Sensitivity Filters: Europium 40 fM (4 amol/well, 384-well plate)
Monos: Europium 1200 fM (120 amol/well, 384-well plate)

- **Must be quoted** Optional item (Must be quoted separately under **Optional/ Accessories**).

UV-VIS and FLUORESCENCE POLARIZATION

Light source Xenon flash
Detector PMT
Wavelength selection Filters
Wavelength range 250 - 850 nm or better
Sensitivity High sensitivity as mentioned above for UV-Vis and fluorescence

Note: It is expected that one can perform UV-Vis absorption and fluoresce under polarized light (at least in red, green, blue reasons) with variation of angle of polarization from 0 to 90 degree.

4. **Accessories:** All consumables and accessories must be quoted separately.
5. **Warranty:** Standard 2 years (one year optional) or more
6. CIP New Delhi price should be quoted. Institute will provide custom duty exemption certificate and custom duty & clearance charges, if required.

Terms and Conditions:

- The manufacturer must have supplied similar instruments in leading institutions of India – IIT/BARC /DRDO/CSIR labs etc.
- Latest satisfactory performance letter of the instrument from the end user needs to be submitted along with contact details.
- Proof of Company's installations in India from last 5 Years need to be submitted.

OTHER TERMS:

1. **Spares:** state availability of spares for ten years.
2. **Indian agency commission:** Should be clearly stated in the financial bid in Indian currency.
3. **Consumable & spares:** List of the consumables and spares to be supplied with the system.
4. **Penalty:** A penalty of 1% of the order value will be applied for late delivery of the goods for each week thereof subject to a maximum of 10%.
5. **Bank Guarantee (BG):** Successful bidder have to furnish 5% of the order value as a performance security in the shape of Fixed Deposit Receipt / Bank Guarantee in favour of the Registrar, Indian Institute of Technology (BHU) which will be valid for a period of sixty days beyond the date of completion of all contractual obligations of the supplier including warranty obligations. Fixed Deposit Receipt / Bank Guarantee should be issued from a schedule bank in India. Bank guarantee is only applicable for the Supplier who will get the Award of Contract and will submit at the time of installation of the instrument.
6. **Payment:** The payment shall be made by LC. (Where 90% of payment against shipment and balance 10% payment at the time of satisfactory installation and submission of BG).
7. **User List:** Provide users for last 5 years with contact person name, address, phone, and email IDs.
8. **Manuals/Documents:** 1 set of hard copy and 1 set of soft copy in English (preferred as following). i. Operating manual ii. Maintenance manual iii. Servicing manual iv. Programming manual v. Spare parts list with source of supply and prices vi. Description of control interface vii. Circuit diagrams of PLC, drive controls etc viii. Manuals of bought out items incorporated in the system ix. Details of any custom made ICs & components & their sources x. Flow charts of all resident software xi. Test Chart xii. Pre-installation requirements of foundation plan details, electromagnetic interference and vibration.
9. Details of the standard samples to be provided by the company for testing the instruments at the time of installation at site for the demonstration of the performance of equipment.
10. Please provide the segmented quotation for each optional measurement capability.
11. The Tender document should also indicate what kind of service/maintenance is required for the system. Whether this service has to be carried out by a company engineer or it can be carried by trained service personnel within India. The frequency of visit and the charges should be mentioned.
12. The Tender should be enclosed with proper certifications like **Authorization Certificate and Proprietary Certificate in case of Proprietary items.**
13. Complete computer control of operation and measurement on Windows based platform. Give the details of software for measurement and analysis.
14. Pre-installation site preparation/inspection requirements to be indicated and specified along with the bid.
15. Installation and training should be provided free of cost otherwise clearly mentioned with justification.
16. Warranty period to be clearly mentioned and should begin from the date of installation. Annual Maintenance Contract Charges should be clearly mentioned after warranty period.
17. Guaranteed specifications to be demonstrated at the time of installation. Any necessary standard samples for that purpose should be brought by the Service Engineers.
18. Service manuals with complete circuit diagram and PCB layout for all equipment to be provided with the instrument.
19. Submit Electronic copy of the Technical specifications and bids.
20. The vendor to provide compliance statement with respect to each technical specification in the tender document duly supported by the manufacturer's literature. Any other claim will not be accepted and may lead to rejection of the bid.
21. Printed literature in support of compliance to the prescribed specifications is to be submitted.
22. Compliance report needs to be submitted as a part of the technical bid.
23. In case during shipment period newer versions of software/hardware is available with vendor in lieu of the existing one for which Letter of Credit was opened, then improved version should be made available without any extra cost.

24. Institute reserves the right to visit installation in India of similar capabilities the details with to regard to such installation should be given as a part of technical bid.
25. Technical evaluation by the Institute may include demonstration to verify functionalities and capabilities of the system quoted.

Services: Vendor must submit Factory Acceptance Test procedure supported with relevant printed literature and certificates.

Coordinator
School of Material Science & Technology
Indian Institute of Technology (BHU)
Varanasi- 221005

TECHNICAL COMPLIANCE STATEMENT

(To be submitted by bidder duly filled)

SI No.	Specifications:	Description	Yes/NO
1.	A multimode ELISA plate reader is required for following studies for Endpoint, kinetic, spectral scanning, well area scanning of 6 to 384 well plates.	<ul style="list-style-type: none"> • Fluorescence • Luminescence • UV-Vis absorbance • Time-resolved fluorescence (in micro sec or better) • Fluorescence polarization (at least in red, green, blue reasons)- Optional • UV-Vis polarization (at least in red, green, blue reasons) - Optional 	
2.	The ELISA plate reader is preferred to support cuvette, Petri and cell culture dishes and micro-volume Plates of following specifications:	<ul style="list-style-type: none"> • It must be Monochromator based system having Detectors PMT at least for Fluorescence and Polarization Studies (Polarization is optional) • Temperature control- incubation to 45°C with Condensation Control • Shaking- Linear, orbital, double orbital etc. • Computer controlled with users friendly free upgradable analytical software 	
3.	ABSORBANCE (Approx values are given)	<ul style="list-style-type: none"> • Light source- Xenon flash or equivalent • Wavelength selection- Monochromator • Wavelength range- 250 - 850 nm, 1 nm increments • Monochromator bandwidth- 8 nm (>255 nm) Monochromator wavelength <u>accuracy & repeatability</u> ±2 nm • Dynamic range- 0 - 4.0 OD with resolution 0.0001 OD and OD accuracy <1% at 2.0 OD • OD linearity- <1% from 0 to 3.0 OD • Path length correction- Yes • Stray light- 0.03% at 230 nm • Fast Reading speed (kinetic) less than 1 min. 	
4.	FLUORESCENCE INTENSITY	<ul style="list-style-type: none"> • Light source Xenon flash or 	

	(Approx values are given)	<p>equivalent</p> <ul style="list-style-type: none"> • Detector- PMT for monochromator system and PMT for filter system • Wavelength selection- Quad monochromators (top/bottom) as well as filters. • Wavelength range- Monochromators: 250 - 850 nm or better • Filters- 200 - 850 nm • Monochromator bandwidth- Fixed, 16 nm or better • Dynamic range- 7 decades • Sensitivity- (i). Fluoresce in 0.25 pM (0.025 fmol/well, 384-well plate)- Top or better (ii). Fluoresce in 4 pM (0.4 fmol/well, 384-well plate) – bottom or better • Reading speed (kinetic) below 1 minutes 	
5.	LUMINESCENCE	<ul style="list-style-type: none"> • Wavelength range- 300 - 700 nm or better • Dynamic range-> 6 decades • Sensitivity Monos: 20 amol ATP (flash) • Filters: 10 amol ATP (flash), 100 amol (glow) 	
6.	TIME-RESOLVED FLUORESCENCE	<ul style="list-style-type: none"> • Light source- Xenon flash • Detector- PMT • Wavelength selection- Quad monochromators (secondary mode) • Filters (top) • Wavelength range- Filters: 200 -850 nm • Sensitivity Filters: Europium 40 fM (4 amol/well, 384-well plate) • Monos: Europium 1200 fM (120 amol/well, 384-well plate) 	

7.	<p>Must be quoted as optional: UV-VIS and FLUORESCENCE POLARIZATION</p>	<ul style="list-style-type: none"> • Light source- Xenon flash • Detector- PMT • Wavelength selection- Filters • Wavelength range- 250 - 850 nm or better • Sensitivity- High sensitivity as mentioned above for UV-Vis and fluorescence <p>Note: It is expected that one can perform UV-Vis absorption and fluoresce under polarized light (at least in red, green, blue reasons) with variation of angle of polarization from 0 to 90 degree.</p>	
8.	<p>Consumable and accessories</p>	<p>All consumables and accessories must be quoted as optional</p>	
9.	<p>Warranty</p>	<p>Standard 2 years (one year optional) or more</p>	

**Signature of the Authorized Person
with Official Seal**