Office of the Dean of Research and Consultancy
Indian Institute of Engineering Science and Technology (IIEST), Shibpur
P.O. Botanic Garden, Howrah-711 103, West Bengal, India

Project Code: DRC/SERB-DST/CHEM/UB/003/20-21

Department of Chemistry
Indian Institute of Engineering Science and Technology, Shibpur,
Howrah-711 103

Ref.: Tender Advt. No. CH 1700, dated 15.09.2021

RE-TENDER of
Tender Advt. No. CH 1690, dated 18.08.2021

Notice Inviting Quotations

Sealed quotations are invited for the supply of ***Probe Sonicator*** as per the following technical specification. The relevant bidding document can be downloaded from the website. Last date of submission of sealed quotation is **07 working days from the date of publication** by **5.00 p.m.**

Dean (R & C)

(A. Code DRC-T025/21-22)

This is downloadable

INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY, SHIBPUR

BIDDING DOCUMENT

(Project Code: DRC/SERB-DST/CHEM/UB/003/20-21)

For Supply of

Probe Sonicator

Under

SERB-DST Project
Govt. of India New Delhi

Department of Chemistry

September 15, 2021

SECTION I: TERMS & CONDITIONS AND IMPORTANT INSTRUCTIONS FOR BIDDERS

1. Bidders are to invited to submit sealed quotation as per the technical specifications for tendered item to Dr. Ujjal Bhattacharjee, Assistant Professor, Department of Chemistry, **on 07 working days from the date of publication** between **10.30 a.m. to 5.00 p.m**. except Saturday, Sunday and other public holidays.

2. The last date of receipt of tenders is **07 working days from the date of publication** up to **5.00 p.m.** quotations received later will not be entertained under any circumstances.

3. Date and time of opening of bid is **next working day at 11.00 a.m.** and the place of opening of bid is office Room of the Department of Chemistry, IIEST, Shibpur, Howrah-711103.

4. Bidders are to submit the quotations in Sealed Cover to the Department of Chemistry in the following address:

Dr. Ujjal Bhattacharjee
Assistant Professor
Department of Chemistry
IIEST, Shibpur
Howrah-711103, India

5. All bids should be submitted in TWO-BID Format (One TECHNICAL AND one FINANCIAL BID) in two separate closed envelops (Enquiry Number must be mentioned on covers).

TECHNICAL BID- - giving Detailed Specifications with the Compliance certificate in original (format attached), Catalogues, List of users (at least 3 govt. institutes in the 2020-21 year) & Technical Details / Operating Parameters, Terms & Conditions in Original duly signed by the Proprietor / Partner/ Director of the Company for the

(a) Tendered item.
(b) Essential Accessories & Spares.

FINANCIAL BID

Giving detailed specifications along with PRICE BID - giving full Prices in Indian Rupees (only) for

(a) Tendered item.
(b) Essential Accessories & Spares.

6. The price quoted should be inclusive of all Taxes, duties and levies. Inclusion of Tax/Levy or any shipping or Freight charge at a later stage will not be accepted.

7. The materials are to be supplied at a place within IIEST Shibpur premises between 11.00 a.m. and 4.00 p.m. The tenderer will be responsible for any breakage, damage or defect in the equipment detected subsequently. The supply and installation of the equipment should be completed within a period not

exceeding 3 months from the placement of the formal work order or opening of the LC failing which appropriate action will be taken as per university rules.

8. If the supply is not completed within the stipulated period as indicated in the Work Order, a Liquidated Damage @ ½ per cent per week will be imposed subject to maximum of 5% of the value of work order.

9. For Indian purchase (*This clause is applicable only for Indian purchase and not applicable for foreign purchase*):

Bills in triplicate should be presented for payment within 15 days of Supply / Completion of work. No Advance Payment can be made. All bills are to be accompanied by Order copies and Challan Receipt. The Order Number is to be noted on both the Challan and the Bill.

10. Bidder shall furnish an undertaking for providing Comprehensive onsite warranty for any manufacturing defect for a period of one year against each furnished item from the date of supply/installation on their letterhead, failing which, their offer will not be considered.

11. Documents to be submitted with the tender:

- Tender Documents/Terms & Conditions in Original duly signed by the Proprietor / Partner/ Director of the Company as a token of acceptance of Terms & Conditions of Tender.
- A Compliance certificate (format provided) for technical specifications in Original duly signed by the Proprietor / Partner/ Director of the Company along with catalogue with specification.
- Warranty declaration as stated above.

12. IIEST, Shibpur, Howrah reserves the right to accept / reject all or any of the tenders without assigning any reason whatsoever.

13. Vendor need to provide the list of govt. institutes where they have installed similar equipment (at least 3 govt. institutes in the 2020-21 year).

14. Vendor must provide list of technical experts for service for future maintenance in the eastern India.

We accept the above terms and conditions.

Dated:

Signature of Bidders/Suppliers
With date & Seal

SECTION II: TECHNICAL SPECIFICATIONS

1. Machine should have large (at least 7-inch) TFT display with touch sensitivity for parameter control and real time monitoring
2. Machine should have Microprocessor based control which can store 50 or more pre-fixed program files with parameters like time, amplitude, duty cycle or pulse on/off & ultra-sonication
3. Machine should have facility for pulse on/off control
4. Machine should have facility for delicate thermally sensitive biological sample where pulse can be programmed so that heat generation is minimum
5. The machine should have facility for auto frequency tuning for peak power.
6. The machine should be provided with auto tuning facility to get maximum efficiency of selected probe
7. ON/OFF timer up to 999 minute or more & freely stable
8. Ultrasonic horn fitted with threaded and replaceable tip
9. Built-in automatic overload protection to protect the system during overload
10. The Machine should provide various 'Error message' for faulty operation and to identify problems.
11. System should have Temperature Alarm facility to set sample temperature guided by external temperature sensor. Sample temperature can be set so that sonication will stop in case sample temperature increases the limit
12. Ultrasonic frequency: 19.5 ~ 20.5 KHz
13. Maximum Ultrasonic Power: 250 Watt or more
14. Power amplitude variation: 10~ 99% or better
15. Duty Cycle: 0.1% ~ 99.9% or better
16. Min. Sample Volume: 0.5 ml or less
17. Max. Sample Volume: 500 ml or more
18. Probe Material: Titanium Alloy
19. Standard Probe Diameter: 3mm for (sample volume 50ml to 250ml),
20. Power Supply: 220-240V, 50 Hz
21. System should be provided with external temperature sensor (Pt-100), necessary power
cable, Wrench set etc.
22. System should have extra probe option for future use: a) 2 mm (Ø2) Titanium alloy Probe (for sample volume 0.5 ml to 50ml), b) 6mm (Ø6) Titanium alloy (for sample volume 250ml to 500ml) & Probe selector switch in controller.
(These probes are not required now but must have provision to add in future)
23. A sound proof box with height adjustable stand and clamp should be available for future use. (This is not required now but must have provision to add in future)

Format for compliance certificate (to be produced in vendor's letter head):

Specification number	Yes	No
1. Machine should have large (at least 7-inch) TFT display with touch sensitivity for parameter control and real time monitoring		
2. Machine should have Microprocessor based control which can store 50 or more pre-fixed program files with parameters like time, amplitude, duty cycle or pulse on/off & ultra-sonication		
3. Machine should have facility for pulse on/off control		
4. Machine should have facility for delicate thermally sensitive biological sample where pulse can be programmed so that heat generation is minimum		
5. The machine should have facility for auto frequency tuning for peak power.		
6. The machine should be provided with auto tuning facility to get maximum efficiency of selected probe		
7. ON/OFF timer up to 999 minute or more & freely stable		
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12. Ultrasonic frequency: 19.5 ~ 20.5 KHz		
13. Maximum Ultrasonic Power: 250 Watt or more		
14. Power amplitude variation: 10~ 99% or better		
15. Duty Cycle: 0.1% ~ 99.9% or better		
16. Min. Sample Volume: 0.5 ml or less and Max. Sample Volume: 500 ml or more		
17. Probe Material: Titanium Alloy and Standard Probe Diameter to be supplied with this tender: 3mm for (for sample volume 50ml to 250ml)		
18. System should be provided with external temperature sensor (Pt-100), necessary power cable, Wrench set etc.		
19. System should have extra probe option for future use: a) 2 mm (Ø2) Titanium alloy Probe (for sample volume 0.5 ml to 50ml), b) 6mm (Ø6) Titanium alloy (for sample volume 250ml to 500ml) & Probe selector switch in controller. (These probes are not required now but must have provision to add in future)		
20. A sound proof box with height adjustable stand and clamp should be available for future use. (This is not required now but must have provision to add in future)		

We certify that all the specification as described above are true and we understand that failing to ensure the commitment will lead to action as deemed fit by IIEST Shibpur.

Date :

Signature of Bidders/Suppliers
With date & Seal