



TATA INSTITUTE OF FUNDAMENTAL RESEARCH

(Autonomous Institution of the Department of Atomic Energy, Government of India)

Survey No. 36/P, Gopanapally village, Serilingampally Mandal, Ranga reddy Dist., Hyderabad - 500107

Phone: 040-2020 3020, Email: jrathna@tifrh.res.in

Ref: TIFR/PD/CA21-06/21-22/210006

LIMITED TENDER

To,
The Bidders / Suppliers.

Dear Sir/Madam,

Please submit your Quotation for the following:

S.No	Description	Qty.
1	<p>High performance Microwave Synthesis System</p> <p>Microwave assisted focused monomode organic synthesis system should be able to handle the synthetic reactions involving routine organic, organometallic, Nano materials synthesis, fluorination, caustic solutions, catalysts using palladium, non-polar solvents like toluene, hexane etc.</p> <ul style="list-style-type: none">▪ Power Output: Minimum microwave power of minimum 700 W or higher▪ Microwave Power field density: 6000 Watts/liter or more▪ Maximum Pressure & Temperature: 20 bar and 260°C for all vessel types (10 mL as well as 30 mL) for scale up reactions without re-optimization of parameters.▪ Ability to effectively heat polar as well as non-polar solvents like Toluene, Dioxane etc without heating aids.▪ Temperature Measurement: IR measurement as standard facility with multi point calibration for accurate temperature measurement of reaction/s.▪ Integrated Pressure Sensor to measure, display and document reaction pressure.▪ Should have inbuilt magnetic stirrer device with variable speed from 0 rpm upto 1200 rpm or more to ensure uniform temperature in the reaction mixture volume.▪ Self-tuning cavity for optimum heating efficiency with all vessel types.▪ Should be supplied with Glass Vials of 10 ml and 30 ml capacity with sustainable material of construction and allow for multiple reaction runs to be conducted in the same vial.▪ Should be supplied with a vessel made of special material viz. SiC of 10ml capacity to allow for carrying out reactions involving metallic particles, in-situ fluorination and reactions using other aggressive reactants.▪ Sealing of reaction vessels should be easy and without use of any tools.▪ Heating Performance benchmarks with glass vessels and without any	01 No.

	<p>heating aids: System should have ability to heat 20 mL Ethanol to 200 °C in 2 min System should have ability to heat 5 mL Toluene to 200 °C in less than 5 min</p> <ul style="list-style-type: none"> ▪ Large inbuilt Touchscreen display with capability for online graphical display of reaction parameters like pressure, power and temperature and review of previous reaction runs. ▪ Direct printout to PDF files or export of data to excel via USB ports. ▪ Required consumables for trouble free operation of the instrument should be quoted. ▪ Suitable air compressor for operation of the instrument and cooling of reaction vials after a reaction is over should also be quoted optionally. ▪ The system should be up-gradable with an autosampler with minimum 24 reaction vessels handling (10 mL and 30 mL) for unattended operation. ▪ System should have possibility to connect Fiber optic Ruby Thermometer with ability to measure internal reaction temperature simultaneously along with IR sensor and simultaneous display of both, IR and Ruby temperature on screen should be quoted separately. ▪ Instrument should be upgraded with integrated digital camera with on screen operation in future ▪ Should quote for additional consumables for smooth running of the samples for 1yrs. ▪ System should be offered with complete accessory like air compressor, tubing's, connectors etc. 	
--	---	--

Note: Please submit the quotation along with Certificate of Local Content as per attached Annexure - A duly signed and stamped on Letterhead.

Please mention your GST Registration numbers on the quotation, Proforma Invoice and Bills. Quotation should indicate make, delivery period, guarantee/warranty exact taxes applicable, etc.

The payment will be made only after delivery of the supply, satisfactory installation, commissioning and performance of the item/equipment.

Payment terms: 100% payment within 30 days against signed original invoice, after receipt, acceptance and installation at TIFR-Hyderabad.

TIFR is a public funded research institute and is entitled to concessional rate of GST @ 5% for certain items supplied for research purpose vide notification no. 47/2017 dated 14th Nov, 2017. The offer should be submitted after fully considering the above notification.

Quotation should be submitted in sealed envelope duly superscribing our enquiry reference and due date.

Quotation sent by hand delivery / courier are to be deposited in the Tender Box kept at the Main Gate after obtaining stamp, date and signature of the Security Officer.

Due date for submitting your offer is 14.10.2021.

Administrative Officer

Annexure - A

Certificate for Local Content

*We [name of manufacturer] hereby confirm in respect of quoted item(s) that Local Content is equal to or more than 50% and come under 'Class-I Local Supplier' Category. As being 'Class-I Local Supplier', we are eligible for Purchase Preference under 'Make in India' Policy vide Gol Order No.P-45021/2/2017-PP (B.E.-II) dated 15.06.2017 (subsequently revised vide orders dated 28.05.2018, 29.05.2019 and 04.06.2020)

OR

*We [name of manufacturer] hereby confirm in respect of quoted items(s) that Local Content is more than 20% but less than 50% and come under 'Class-II Local Supplier' Category.

The details of the location (s) at which the local value addition made is /are as under:

- 1.....
- 2.....
- 3.....

*Strike out whichever is not applicable

Date:

Seal & Signature of the Bidder

NOTE:

- Self-certification that the item offered meets the minimum local content (as above) giving details of the location(s) at which the local value addition is made in case the bidder wishes to avail the benefits under the make in India policy, if applicable.
- In cases of procurement for a value in excess of Rs. 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content to avail the benefits under the make in India policy, if applicable.