

सीएसआईआर – उत्तर पूर्व विज्ञान एवं प्रौद्योगिकी संस्थान  
CSIR – NORTH-EAST INSTITUTE OF SCIENCE AND TECHNOLOGY  
(Council of Scientific & Industrial Research)  
जोरहाट: JORHAT: असम: ASSAM



स्पीड पोस्ट द्वारा / BY SPEED POST.

File Enquiry No. 1(PEQ)/10/14 – 15/PUR/T – 56.

Date: 27.10.2014.

Note: Please send your quotation in sealed cover on or before **19.11.2014 till 02.30 pm** which will be opened on **19.11.2014 at 03.00 pm**.

To,

Dear Sirs,

Kindly arrange to send your offer in a SEALED COVER in **TWO-BID (Technical Bid & Price Bid) System** quoting this office file reference super-scribe on the envelope within due-date to the terms & conditions overleaf:

Sl. No.	Description of Item / Material.	Qty.
1	<p><b>Microwave Synthesis System under Buy Back offer consisting:</b></p> <ol style="list-style-type: none"><li>1) A microwave synthesis system that is capable of performing solid-solid phase reaction under inert and reactive gas medium intended for inorganic oxidic, ceramic and metallic nanomaterials at elevated pressure and temperature.</li><li>2) <b>Magnetron Capacity –</b><ol style="list-style-type: none"><li>a) Microwave Output /delivered power of 1000 Watt minimum or better, with the capability to increase the selected power in a variable wattage increment rate. Details to be provided. Frequency – 2450 MHz +/- 5 MHz</li><li>b) System should have magnetron protection device.</li></ol></li><li>3) <b>Open vessel synthesis system under reflux:</b> Kit for batch synthesis at normal pressure using 500 ml round bottom glass flask with all required accessories including adapter and condenser, PTFE and other microwave absorbing material stirring bars.</li><li>4) For dry media synthesis vendor has to quote reactor capable of handling volume less than 500 ml and should be able homogenously rotate and mix the reaction mixture continuously.</li><li>5) System should have 1500ml flasks for handling volumes of larger capacity.</li><li>6) There should be provision for Inert and Vacuum condition in the flask</li><li>7) There should be provision for both UV and ultrasonic attachment in the flask</li><li>8) <b>Temperature controls/sensors</b><ol style="list-style-type: none"><li>a) Should have appropriate in-situ temperature (Thermocouple/Fiber Optics) sensors/controls.</li><li>b) Also, there should be IR sensors to accurately measure temperature of all vessels when group of vessels are placed for processing.</li></ol></li><li>9) <b>Stirring</b><ol style="list-style-type: none"><li>a) Should have the capability for stirring of solvents in all type of vessels simultaneously during processing.</li><li>b) Magnetic stirrers for polar and non-polar solvents to be quoted.</li></ol></li></ol>	1 set

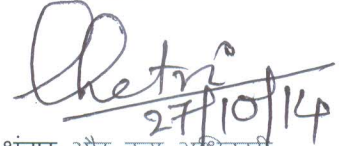
Sl. No.	Description of Item / Material.	Qty.
	<p>10) <b>Safety Arrangements:</b> Safety interlocks to prevent microwave emissions with opening of door.</p> <p>11) <b>Interior cavity:</b> a) Acid fume resistant high grade steel with fluoro-polymer or appropriate material coated. b) Should have cooling mechanism for cooling of microwave cavity and vessels without any water circulation.</p> <p>12) <b>Exhaust</b> a) Should have the provision to exhaust the fumes etc. b) Should provide acid resistant flexible hose connectors to lab exhaust.</p> <p>13) <b>Software/ Programming capability:</b> Should have adequate provision for programming the following parameters. a) Microwave power of 1Watt increment of the total power b) Pressure c) Time at controlled pressure d) Total run time. e) System software should allow for automatic adjustment of power delivery based upon sample load and pre-programmed control settings f) Provision to monitor the various parameters including power, temperature, ramp and time. g) Should be able to generate various plots of the process parameters. h) Should have controller to attach PC/Lap-Top to run the equipment. i) Also, should have the ability to save methods and runs on a windows-formatted USB j) Periodic software updates should be provided free of cost</p> <p>14) The equipment should have the provision for manual operation in the event of computer failure</p> <p>15) <b>Display</b> Capable to display the detailed methods, graphs of temperature and pressure against time and temperature of individual vessels.</p> <p>16) <b>Door</b> Stainless steel door with shatter – proof glass window.</p> <p>17) <b>Hardware protection:</b> Should have polymer/ appropriate material coating both inside and outside surfaces to protect against acid/organic solvents.</p> <p>18) <b>Power</b> 240 ± 10 V, 50 Hz, details of receptacle/socket to be provided. a) <b>Guarantee/Warranty:</b> The entire equipment should be guaranteed for a period of minimum 36 months from the date of commissioning. During warranty period, if there is any repair that is to be carried out at the supplier's works, transportation cost of equipment/component besides repair/replacement charges, if any, should be borne by the supplier. b) AMC charges for 3 years beyond the warranty period of 36 months should be quoted.</p> <p>19) <b>Spares</b> Prices of essential spares and consumables should be provided separately</p> <p>20) <b>Computer –</b> Suitable Lap-Top to control and run the equipment should be quoted separately</p>	

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Sl. No.	Description of Item / Material.	Qty.
	<p>21) <b>Buy Back Offer</b> Offer may be made for buy back of Ethos 900 model MW Synthesiser (M/S Milestones s.r.l. Sorisole-Italy Made, installed in 25-02-2002, <b>Serial No. 12 49 03</b> Labstation in Materials Science Division. The existing equipment can be viewed at any time during office hours at Room No 2).</p> <p>22) <b>Optional Accessories</b> (Prices of should be quoted separately from the main quotation): <b>High-pressure &amp; temperature vessels</b></p> <p>a) Vessels should be resistant to all solvent and other corrosive environments b) Minimum capacity per vessel: 50 ml c) Maximum sustainable vessel pressure: 100 bar or more d) Maximum sustainable vessel temperature higher than 200°C e) Material: TFM/PTFE or any appropriate material which is acid, alkali etc. solvent resistant and capable of withstanding required temperature and pressure as above. f) Should provide appropriate tools to close the vessels. Details to be provided. g) Should have suitable provision/rotors to process single vessel as well as multiple vessels simultaneously.</p>	

आपको धन्यवाद,  
Thanking you,

भवदीय,  
Sincerely,

  
27/10/14

भंडार और क्रय अधिकारी

Stores & Purchase Officer

Tel: 91 – 0376 – 2372710, Fax: 91 – 0376 – 2372921,

E-mail: [spopur@gmail.com](mailto:spopur@gmail.com)

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## **TERMS & CONDITIONS**

### **1. INVITATION OF BID**

Director, CSIR – NEIST, Jorhat invites sealed bid for each item(s) in **TWO-BID (Technical Bid & Price Bid)** with EMD of ₹ 40,000.00.

### **2) SPECIFICATIONS**

The offer must be strictly as per our technical specifications to be supported with printed technical leaflet / literature of the quoted model of the item by the bidder / manufacturer and the specifications mentioned in the quotation must be reflected / supported by the printed technical leaflet / literature. The model quoted invariably be highlighted in the leaflet / literature enclosed with the quotation.

### **3) PRICES**

- a) The prices quoted should clearly indicate price break-up indicating FCA, FOB, CIF, CIP, installation & commissioning, training, duties and taxes, etc.
- b) In case of domestic, the offer should contain the basic price and percentage of Excise Duty separately since we are exempted from payment of Excise Duty.
- c) In case of import / price quoted in foreign currency, Indian Agent may also quote for FOR CSIR – NEIST price including inland transportation, insurance, clearance charges, etc., (The charges of inland transportation & Insurance will be at actual against proper receipt). CSIR – NEIST will provide all necessary documents for customs clearance of consignment including Customs Duty Exemption Certificate, etc.

**N.B: All terms used in the Bid / Supply order/contract will have the meaning as described in the "INCOTERMS-2000".**

### **4) TAXES**

The percentage rate of sales tax, resale tax, VAT, duties/levies and any other charges etc, should be clearly indicated in the tender, wherever chargeable. The packing charges must also be indicated separately.

### **5) CUSTOMS AND EXCISE DUTIES**

Our Institution is eligible from payment of concessional custom duty and exempted from payment of excise duty vide Government notification No: 51/96-Customs dated: 23<sup>rd</sup> July 1996 and Central excise duty exemption in terms of notification 10/97 Central Excise dated 01<sup>st</sup> March 1997.

**6) EARNEST MONEY DEPOSIT:** The offer should be enclosed with Earnest Money Deposit of **₹. 40,000.00 (Rupees Forty Thousand Only)** in the form of Crossed Demand Draft / Banker's Cheque / Bank Guarantee valid for 45 days beyond validity of the offer drawn in favor of "**Director, CSIR – NEIST, JORHAT**" issued by Scheduled / Nationalized Bank payable at JORHAT, India along with offer. **No Interest would be paid on the Earnest Money Deposit.**

**7) EXEMPTION OF EMD:** Indian firms registered with Directorate General of Supplies & Disposals and National Small Scale Industries Corporation may be exempted from payment of EMD if the product being quoted is actually manufactured by them and the product is registered with these agencies.

Firms registered with agencies selling products of other companies and not manufacturing the products being quoted by them are not allowed exemption from payment of EMD. Firms are to submit a legible photocopy duly attested, of Registration Certification of the products manufactured and registered with DGS&D and NSIC for availing EMD exemption before opening of Techno-Commercial Bids, Otherwise tender submitted by them will not be considered and summarily rejected.

**8) FORFEITURE OF EMD:** The earnest money deposited will be forfeited if the supplier withdraws or amends impairs and derogates from the offer in any respect within the period of validity.

**9) REFUND OF EMD:** EMD will be refunded within fifteen days after placement of purchase order.

### **10) PAYMENT**

#### **a) import payment**

The payment against import of items shall be made with the following options. The quoting party must confirm one of the options in the quotation:

- By Letter of Credit (80% of LC amount shall be released on presentation of complete and clear shipping documents and remaining 20% after satisfactory installation commissioning / demonstration and submission of Performance Security of 10% of FCA / FOB / CIF / CIP value valid up to two months beyond warranty period. **Or**
- By Foreign Demand Draft or Wire Transfer. 100% payment will be made by FDD or wire transfer after receipt of material in good working condition and satisfactory installation/commissioning / demonstration.

**N.B: All foreign bank charges shall be borne by the supplier.**

#### **b) Indigenous payment**

In case of indigenous items, payment will be 100% within 30 days after receipt and acceptance and satisfactory installation / commissioning of materials / equipment.

### **11) SCHEDULES OF REQUIREMENT**

- i. The offer should be valid at least **90 days** from the date of opening.
- ii. Delivery & warranty period: The delivery should be **within 6 – 8 weeks** & the equipment(s) should have a comprehensive warranty of at least **36 (thirty – six) months** from the date of installation.



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- iii. Please provide the name and address of your Indian Agent along with authorization letter.
- iv. Please also indicate the exact amount of Agency Commission payable to your Indian Agent in equivalent Indian currency after the receipt of the consignment in good condition at our Stores and in case of equipment after the satisfactory installation and commissioning.
- v. Please indicate details of services to be rendered by your Indian Agent.
- vi. Indicate the names of the Indian reputed organizations where you have supplied the similar equipment and may attach the satisfactory performance report of the equipment from users.
- vii. If you have supplied identical or similar equipment to other CSIR / Labs / Instt., the details of such supplies for the preceding three years should be given together with the prices eventually or finally paid.
- viii. Please do confirm that service (manual) shall be supplied along with the supply of material.
- ix. Installation, Commissioning and satisfactory demonstration of the whole system and training should be free of cost in case of equipment.
- x. The Installation, Commissioning and Demonstration of the system should be completed within two weeks from the date of arrival of the items at CSIR – NEIST, Jorhat
- xi. It is mandatory to indicate the approximate dimensions & weight of the stores/consignment quoted for: tare Weight, Net weight and Volume (LxBxH).
- xii. Bidders should provide the name and detail address (including E-mail & Mobile No.) of their clearing and forwarding agent in India.
- xiii. Fax/email bid will be considered at the risk of bidder if EMD is not involved.
- xiv. The rate of AMC of equipment should be provided for 5-10 years beyond the warranty period.
- xv. The acceptance of quotation will rest with the DIRECTOR, CSIR – NEIST, Jorhat who does not bind himself to accept the lowest quotation and reserves the right to himself to accept or reject partially the quotations received, without any assigning any reason whatsoever.
- xvi. All other related terms and conditions from the "CSIR Manual of Best Practices 2008", will be applicable in this tender.

**N.B: The Quotation / Proforma Invoice should show the above information with relevant technical literature.**

#### **12) EVALUATION OF TENDERS**

Unless specifically mentioned, the overall lowest bid meeting the technical specifications will be selected for placement of purchase order.

#### **A. Grounds for summary rejection of bid / offer without any further clarification at preliminary evaluation stage:**

1. Unsigned bid
2. Late or delayed bid
3. Bid validity is shorter than the required period
4. The bid is not accompanied by Earnest Money Deposit (EMD) if EMD is required
5. The bidder is not eligible
6. No authorization letter from the manufacturer
7. If there is no mention of packing, forwarding, freight, transportation and insurance charge in the offer
8. Not willing to provide performance security if it is requirement of tender.

#### **B. Grounds to be considered as material deviation for summary rejection of bid / offer without any further clarification during intensive technical evaluation stage:**

1. The good(s) quoted which does not meet the following major / essential technical specification(s).
  - i. A microwave synthesis system that is capable of performing solid-solid phase reaction under inert and reactive gas medium intended for inorganic oxidic, ceramic and metallic nanomaterials at elevated pressure and temperature.
  - ii. **Magnetron Capacity –**  
Microwave Output /delivered power of 1000 Watt minimum or better, with the capability to increase the selected power in a variable wattage increment rate. Frequency – 2450 MHz +/- 5 MHz
  - iii. **Open vessel synthesis system under reflux**  
Kit for batch synthesis at normal pressure using 500 ml round bottom glass flask with all required accessories including adapter and condenser, PTFE and other microwave absorbing material stirring bars.
  - iv. For dry media synthesis vendor has to quote reactor capable of handling volume less than 500 ml and should be able to homogeneously rotate and mix the reaction mixture continuously.

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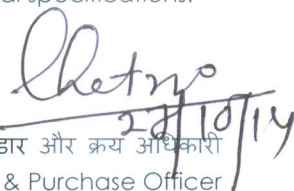
- v. There should be provision for Inert and Vacuum condition in the flask
- vi. There should be provision for both UV and ultrasonic attachment in the flask
- vii. **Temperature controls/sensors**
  - a) Should have appropriate in-situ temperature (Thermocouple/Fiber Optics) sensors / controls.
  - b) Also, there should be IR sensors to accurately measure temperature of all vessels when group of vessels are placed for processing.
- viii. **Stirring**
  - a) Should have the capability for stirring of solvents in all type of vessels simultaneously during processing.
  - b) Magnetic stirrers for polar and non-polar solvents to be quoted
- ix. **Buy Back Offer**

Offer may be made for buy back of Ethos 900 model MW Synthesiser (M/S Milestones s.r.l. Sorisole-Italy Made, installed in 25-02-2002, **Serial No. 10000002 49 03** Labstation) in Materials Science Division. The existing equipment can be viewed at any time during office hours at Room No 2.

2. Conditional bid, which is, not agreeing to some essential condition(s) of the tender.
3. No technical literature or brochure from the manufacturer of the quoted item(s) or product verification/ authentication from manufacturer.

**C. Grounds for seeking further clarification:**

1. Minor informality or irregularity or non-conformity such as make / model, other documents etc in the bid.
2. Non-conformity between figures and words of the quoted price.
3. Discrepancies between original and additional copies of a bid.
4. Requirement for more brochure or printed literature to get more clarity of certain technical specifications.
5. Reasonableness of offer price.
6. After sale support: rate and terms of AMC after warranty.
7. Non-conformity between various parameters / unit of measurement etc of technical specifications.
8. Availability of spares.

  
भंडार और क्रय अधिकारी

Stores & Purchase Officer  
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E-mail: [spopur@gmail.com](mailto:spopur@gmail.com)