

**PONDICHERRY UNIVERSITY, PUDUCHERRY – 605 014**

*(A central University)*

**DEPARTMENT OF PHYSICS**

Sealed quotations *under two bid systems (Technical and Commercial)* are invited for purchase of the following item. The quotations duly signed and sealed should be submitted to the address below. The quotation should be sent by Post (Normal / Speed / Registered / Courier) only. The price quoted should include all the costs such as delivery, installation, testing etc., and also inclusive of all taxes. Warranty terms should be explicitly specified in your quotation. The technical specifications are given below.

**Last date and time for receiving quotations: 4<sup>th</sup> February, 2015- 3.00 PM.**

**Date and time of opening the quotation (Technical): 4<sup>th</sup> February, 2015- 3.30 PM.**

**Technical presentation before the committee: 10.30 AM on 5<sup>th</sup> February, 2015**

**1. Microwave synthesizer**

**Specifications**

<b>S. No.</b>	<b>Parameter</b>	<b>Required Specifications</b>
1	Scope of the equipment	Microwave oven, which can be equipped with various accessories for a wide range of analytical applications in chemical laboratories such as synthesis of ceramic/inorganic/organic materials under homogeneous microwave refluxing of precursor solution in inert/vacuum/reactive ambient and solution reaction under normal atmosphere/high pressure.
2	Modes of operation	Parallel mode
3	Microwave cavity and magnetron	Single or dual magnetron which should provide homogeneous microwave distribution in the cavity. Large microwave cavity of 30(l) x 30(w) x 30(h) cm or higher with excellent chemical resistance. System must have built-in high performance vessel cooling system.
4	Power output	Microwave system must deliver at least 1100 W or more with $\pm 1$ W increment for precise reaction control. Should be possible to set time or power in pulsed or continuous mode.

5	Reactor configuration	<p>System must be capable of processing 6 or more reaction vessels simultaneously</p> <p><b>Reactor Specifications:</b></p> <ul style="list-style-type: none"> <li>- <b>Volume: 100 ml capacity or more</b></li> <li>- <b>Operating Pressure: at least up to 40 bar (580 psi) or more</b></li> <li>- <b>Operation Temperature: at least up to 240 deg C or more</b></li> <li>- <b>Opening Pressure: at least above 70 bar (1015 psi) or more</b></li> <li>- <b>Design Pressure: at least above 100 bar (1450 psi) or more</b></li> <li>- <b>Vessels should be made with suitable material to withstand the specified pressure and temperature and nonreactive with the chemicals.</b></li> </ul> <p>-Maximum operating temperature and pressure specifications must be available/display at the same time during the operation.</p> <p>-Stirring: Built in magnetic stirrer. Stirring in each vessel.</p> <p>-Reaction vessel must have reliable/necessary safety measures (jacket) for overpressure protection.</p>
6	Temperature control and measurement	Should be equipped with a suitable temperature controller for accurate temperature control preferably $\pm 0.5$ °C accuracy. Preferably Fiber optic or similar type temperature sensor that will provide in-situ temperature reading during the entire reaction.
7	Pressure control	Pressure monitoring and control systems which can display operating pressure up to maximum limit of reaction vessel.
8	Software and allied hardware	User friendly (touch screen) system to run and save experimental input parameter file and storage of temperature, pressure and other experimental parameters and data. Data should be readable in any Windows operating system.
9	Safety features	Suitable interlock feature should be inbuilt to prevent emission of microwave and release of pressure in the reactor. Should have adequate protection for magnetron from reflected energy.
10	Power supply	220-230V/50-60 Hz with Indian type 3 pin socket.
11	Accessories	Necessary accessories should be provided for immediate use on the day of installation. Sufficient number of vials, septum, snap caps, etc . should be provided.
12	Warranty	Minimum 3 years comprehensive warranty, minimum 5 years warranty against corrosion of cavity coating and 3 years warranty against magnetron (microwave generator).
13.	User list	Provide the list of users in India with contact address.
14	Engineer and service	Smooth service facilities must be provided as or when required. Engineers must be factory trained by the Principal.

## TERMS AND CONDITIONS

### I. General Information:

- a) **Two bid systems have to be strictly followed. (One for Technical bid and another for commercial bid and each bid should be submitted in separate covers)**
  - b) **Last date and time of receipt of the Quotations: 4<sup>th</sup> February, 2015- 3.00 PM**
  - c) **Date and time of opening the quotation (Technical): 4<sup>th</sup> February, 2015- 3.30 PM**
  - d) **Technical presentation before the committee: 10.30 AM on 5<sup>th</sup> February, 2015**
  - e) **Quotation / Tender Document fee Rs. 1000/-**
  - d) **EMD rates: 2.5% of the quoted price.**
- f) Quoting merely the lowest price does not confer any right to any bidder for award of supply order. The University's Purchase Committee, reserves the right to select the equipment any bid under the grounds of specification compliance, technologically advanced quality, proven performance track record, brand reputation, service backup support & training, offer of additional / special features, Compatibility with the existing System, etc.
- g) The Quotation / Tender Document Fee and EMD should be submitted along with your quotations.
- h) The quotation must be submitted along with the stipulated quotation document fee and EMD in the sealed cover, super-scribing "**Quotation for Microwave synthesizer - BRNS Project-Department of Physics**". The name and address of the bidder should also be mentioned at the "From address" space.
- i) The quotations should be addressed and posted to the following address by speed, registered post or by courier only.

**Dr. Ramaswamy Murugan, Professor, Department of Physics, Pondicherry University  
PUDUCHERRY – 605 014**

**j) Tenders will not be accepted through fax / e-mail.**

## **II. Common Conditions (Import or Indigenous)**

### ***1. Purchase of Quotation Document:***

The Quotation / Tender document can be downloaded from the University website [www.pondiuni.edu.in](http://www.pondiuni.edu.in) or procured from the Pondicherry University on payment of fee as specified above, by means of a D.D, drawn in favor of **the Finance Officer, Pondicherry University, payable at Puducherry**. The downloaded application should be accompanied with the quotation document fee, in the form of a Demand Draft.

### ***2. Price Schedule***

The rates should be quoted for a single unit. The price should include the Delivery, installation, training charges, etc. at the respective Department, Pondicherry University. The prices quoted shall remain firm until the equipment is supplied to the respective Department, Pondicherry University.

### ***3. Quoting the Core price & Tax, Duties, Discount etc.***

The taxes / duties / discounts, if applicable, are to be explicitly and separately shown in the bid.

### ***4. Eligibility:***

The firm must have the requisite domain expertise with regard to supply, installation and post-sale service of the items they are quoting. The firm should have been in existence for at least six years as on the date of this quotation and must have executed at least three orders for this kind of equipments during the last three years.

### ***5. Duty Exemption***

The University has been granted the benefit of exemption from the payment of the Central Excise Duty and Customs Duty by the Department of Scientific and Industrial Research (DSIR), India, vide their Notification No.10/97 dt. 01-03-1997 and 51/96 dated 23.07.96 respectively, in respect of

- a) Scientific and technical instruments, apparatus, equipment, Software including computers.
- b) Accessories and spare parts of goods specified in (a) above and consumables.
- c) Computer software, compact disks, CD ROM, Recording magnetic tapes, microfilms, microchips etc.
- d) Prototypes.

Customs duties at Indian port, if any, will be to the account of the University.

### ***6. Technical Specifications***

- i. **WARRANTY:** The instrument covered under the purchase order, when installed, shall be warranted for the quality, workmanship, trouble free operation and performance for a period of at least 36 months (**preferably 5 years**) from the date of putting the system into operation at the Department of Physics, Pondicherry University, or at least 42 months from the date of receipt of the last lot of the consignment in India.
- ii. If any item covered under warranty fails, the same shall be replaced free of cost including all the applicable charges including shipping cost both ways.
- iii. Complete technical specifications of the equipment including the Operating system to be included in the Technical bid.
- iv. The necessary service support should be provided by Bidder during the agreement period.
- v. The training should be provided by the supplying companies for a minimum period of four days from the date of installation with an expert team. Alternate years training should be provided during the license period.
- vi. Technical post sale support by email and telephone will be provided during the period.

vii. Operating Manual should be provided in English.

viii. A clear statement regarding availability of after-sales service and availability of spare-parts for next 3 to 6 years should be included.

ix. A recent customer list (within last five years) with contact details including email address is to be submitted with technical bids / bids as the case may be.

x. If the equipment is proprietary a product, a proprietary product certificate should be enclosed.

xi. The information pertaining to infrastructural, power and any other requirement for satisfactory installation and commissioning of the whole system must be provided by the bidder, at least 120 days in advance of the installation to be commenced if purchase order is issued.

xii. The equipment must operate at 230V / 50 Hz single phase and / or equivalent three phase electrical power.

xiii. If the bidder is an authorized representative in India, they are requested to inform their technical ability to take care of the problems in the system, if developed later within the warranty and outside the warranty period. The responsibility of the Indian agent must be clearly specified.

xiv. The bidder from abroad shall obtain, if required, export permission from the appropriate authorities in his country or the country of origin for items to be shipped to India in case of items to be imported. The University shall provide necessary information if required for this purpose.

**xv. The validity of the each quotation should be at least for THREE MONTHS from closing date.**

xvi. The offers will not be considered if received after the bid closing date and time.

xvii. The offers received through telex / telefax / e-mail will not be accepted by the University under any circumstances.

xviii. The University shall not be responsible for any delay / loss or non-receipt of quotations by post / courier service.

xix. No unsolicited correspondence shall be entertained after the submission of the offer.

xx. If an order is placed with the firm, the purchase shall be governed by an agreement as per the University rules in force at the time.

xxi. Additional terms and conditions will be incorporated in the purchase order, if needed, to safeguard the interests of the University.

xxii. Quotation is not transferable.

xxiii. In case of any dispute in respect of the quotation, all legal matters shall be instituted within the jurisdiction of the place where the purchaser ordinarily resides.

***7. Power to reject the offer:***

i. Pondicherry University reserves the right to accept / reject any offer in full or in part or accept any offer other than the lowest offer without assigning any reason thereof. Any offer containing incorrect and incomplete information shall be liable for rejection.

ii. No Agency commission will be paid to any authorized agent in India.

iii. Liquidated damages: Timely supply of the ordered items, installation, commissioning (wherever is applicable) and training etc. is the essence of the contract. In case of failure to supply within the time specified in the Purchase order, a penalty / LD of 0.5% of the total value per week or a part thereof shall be levied subject to a maximum of 7.5% in respect of items which are not supplied. The decision of Pondicherry University shall be final in this regard.

iv. Bidder(s) must be authorized business partners of Global / National service providers of the respective equipment.

v. The Bidders must enclose authorization letter from the respective global / national service providers of the above said equipments particularly mentioning an undertaking that in case of default by the Bidder, they (Global Service Provider) shall take over all the responsibilities of the Bidder.

vi. The Bidder should not be involved in any Bankruptcy filing for protection from it.

### **III. Specific Conditions for Imported Equipments**

#### ***1. Payment of EMD:***

The Quotation must be accompanied by EMD as stated above, by means of a Demand Draft, drawn in favor of *The Finance Officer, Pondicherry University, payable at Puducherry. The Small Scale units are exempted from payment of EMD provided they enclose the proof of their exemption Certificate issued by the competent authority.*

#### ***2. Payments terms:***

Normally a payment 90% will be released after the installation & training. However, 100% payment will be released **if the supplier provides Bank Guarantee** towards performance Security for the 10 % of the total cost of the equipment to cover the warranty period. Bank charges in India shall be borne by the purchaser and outside India shall be borne by the contractor / supplier. The offer must be in English. The rates should be indicated both in figures and words against item specified in the given table. It is preferable that the price be quoted in Indian currency.

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