

# INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH THIRUVANANTHAPURAM [IISERTVM]

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Date: 4.06.2020

### CORRIGENDUM TO TENDER NO No: IISER/PUR/1796/MMS-P/SB/19-20

Sub: Supply of Microwave Reactor.

Ref: Tender Enquiry No. 2020\_IISRT\_556444\_1

The above-referred tender enquiry has been **RETENDERED** with revised technical specification as mentioned in Annexure 1

2. Accordingly, the due date for submitting and date of opening of bids has been revised as given below:

Due date for submission

: 18.06.2020 (3.00 PM)

Date of Opening

: 19.06.2020 (3.30 PM)

- 3. Bidders are requested to upload their technical specifications & compliance sheet taking into consideration the above amendment.
- 4. All other terms and conditions remains same.

Thanking You,

Yours Faithfully

Deputy Registrar Purchase & Stores



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#### Annexure I to No: IISER/PUR/1796/MMS-P/SB/19-20

Technical specifications for Microwave reactor

Microwave assisted focused monomode reactor should be able to handle the synthetic reactions involving routine Organic, Organometallic, Nano materials synthesis, fluorination, non-polar solvents like toluene, hexane etc.

- Power Output: Microwave power of minimum 600 W or higher
- Microwave Power field density: 5500 Watts/liter or more
- Maximum Pressure & Temperature: 20 bar and 250°C or greater
- Should be able to accommodate reaction vials of 10 mL as well as 30 mL.
- System must be able to effectively heat polar as well as non-polar solvents without heating aids.
- In situ temperature measurement: R measurement as standard facility with multipoint calibration for accurate temperature measurement of reactions.
- Integrated Pressure Sensor to measure, display as well as document reaction pressure.
- Should have inbuilt magnetic stiger device with variable speed from 0 rpm upto at least 1000 rpm or more to ensure uniform temperature in the reaction.
- System must have self-tuning cavity for optimum heating efficiency with all vessel types.
- System should be supplied with reaction vials of 10 ml and 30 ml capacity that allow for multiple reaction runs to be conducted in the same vial (at least 20 numbers each)
- Sealing of reaction vessels should be easy and without use of any tools.
- Heating Performance with glass vessels and without any heating aids: Quoted system must have ability to heat 5 mL. Toluene to 200 °C in around 5 min
- 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.
- The system must be upgradable with an integrated camera for monitoring the reactions with display on the screen of the instrument.
- The system must be upgradable with an auto sampler with minimum 24 reaction vessels handling (10 mL and 30 mL).
- Warranty: I year or more

#### Options

- Suitable air compressor for operation of the instrument.
- Consumables: Reaction vessels, stir Bars for both 10 mL as well as 30 mL vessels, Reaction vials, Caps, Silicone Septum, must be quoted.

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