CENTRE FOR NANO AND SOFT MATTER SCIENCES

Prof. U.R. Rao Road, Jalahalli, BENGALURU 560 013.

Autonomous Institution under the Dept. of Science & Technology, Govt. of India

REQUEST FOR QUOTATION

PI/000205/19-20 Date : 06.11.2019

The Centre invites Quotation for the following item.

SL No	Description of Item	Qty
1)	Hot stage with high precision temperature controller (Technical specifications attached)	1 No.

NOTE:

(a) The quotation should be sent through Email to purchase@cens.res.in. before 22 November 2019

(b) The quotation should be addressed to the **Administration and Finance Officer, Centre for Nano and Soft Matter Sciences**, PB No: 1329, Prof. U.R Rao Road, Jalahalli, Bangalore-560013.

(c) Discount if any should be clearly mentioned.

(d) Delivery schedule, warranty details must be clearly indicated.

(e) Taxes & duties should be separately shown.

(f) The quoted price should be valid for a minimum period of **3 months** from the date of quotation.

(g) **Terms of payment:** The payment in INR shall be made through NEFT/RTGS after delivery and successful installation of the item

(h) Complete details such as the bank account number/IFSC/SWIFT/Bank Address, etc. should be provided along with the price bid.

(i) **Warranty and replacement:** The Supplier shall ensure that the Items/Equipment supplied shall comply fully with the specifications laid down, for material workmanship and performance. The Warranty period should be specifically mentioned.

(j) The Centre reserves the right to accept or reject any quotation or part thereof without assigning any reasons.

(k) GST if applicable should be at concessional rates as applicable under provisions of OM No. 45/2017 relating to Scientific Research Institutes. Necessary Certificate will be issued at the time of placing order.

Yours sincerely

Sd/-

Administration and Finance Officer

Hot Stage with high precision temperature controller

A hot stage with a temperature controller to work with a polarizing optical microscope both in the transmission and reflection geometries.

Technical Specifications:

Hot stage: Dual heaters located above and below the sample chamber.

Sample area: ~ 40 mm x 50 mm

Sample chamber height: minimum ~ 2 mm

Sample viewing aperture: Top/Bottom windows: ~ 25 mm diameter (with 10 mm inner diameter)

Optical window: Removable type. For transmission viewing : ~ 2 mm diameter with an option to increase it to (i) ~5 mm (ii) ~ 8 mm

Hot stage mounting: provision for both vertical and horizontal mounting on an optical bench.

Minimum objective working distance: ~ 7.5 mm

Minimum condenser working distance: ~ 10.5 mm

Temperature range: Ambient to 300 °C.

Temperature control: Programmable precision switching PID method

Temperature sensor: Platinum RTD

Maximum heating rate: ~ 100°C/ min at 100°C

Maximum cooling rate: ~ 50 °C/ min @ 100 °C

Minimum Heating and Cooling Rate: ~ 0.1°C per hour

Temperature resolution: 0.01°C

Temperature stability: ± 0.05 °C for temperatures above ambient.

Communication ports: RS232/ USB/ LAN

Cable connecting hot stage and controller: Should be long and flexible enough for easy movement / rotation of hot stage

Temperature Controller: User-friendly front panel operation for heating, cooling, ramping, pause, continue functions.

Temperature Control software: Required to control temperature using PC. Should be compatible with Windows OS versions 7 or 10.

Power requirement: 220/230 V, 50Hz

Warranty: 1 year

Note : A compliant statement should be provided against each technical specification.

Optional items:

XY positioner with 10 mm fine travel to move the sample in horizontal XY directions with 10 microns resolution.

Spacers to increase the Sample chamber height to upto ~ 4 mm