

**DEPARTMENT OF CERAMIC ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY
(BANARAS HINDU UNIVERSITY)**

ENQUIRY

Ref: IIT (BHU)/CER/2016-17/ENQ/SD/SERB09/SC-08

Due Date: 23/02/2017
(Last date of quotation receiving)

Date: 02/02/2017
(Date of Tender enquiry)

Dear Sir,

Please submit your lowest quotation for supplying the under mentioned items. Quotation in duplicate must reach us before the date marked above and should contain the following information:

1. Full specification and make of the item offered and its rate F.O.R. Varanasi/CIF New Delhi.
2. Sales tax at concessional rate as applicable to educational institution.
3. Your sales tax registration number and TAN number.
4. Conditions of supply and terms of payment.
5. If you are a manufacturer of the item or if you have proprietary right over it, please mention it in the quotation and provide a certificate.
6. Please mention your agency commission in Indian Rs., if applicable (in case of imported items).
7. Please give undertaking as per annexure-I-B

Quotation must be sent in a **sealed envelope** with word "QUOTATION", our reference number, and due date as given above, clearly marked over it.

Sl. No.	ITEM	Approx. Qty.
REQUIRED TECHNICAL SPECIFICATION FOR RF & DC Magnetron Sputtering Unit		
Vacuum Chamber	<p style="text-align: center;">MOC : Stainless Steel Design : The chamber must go vacuum of level $\leq 5 \times 10^{-7}$ ($\sim 1 \times 10^{-7}$ will be preferable) View Port: To be provided on the front door Ports : Pumping, gas inlet, gauge, magnetron cathodes, etc.,</p>	
Magnetron Cathodes	<p>2" water cooled magnetron cathodes to be fixed to chamber. Compatible: RF / DC Sputtering Flexibility with bellows for tilting the magnetron guns (Confocal configuration preferred) Substrate to target distance adjustment facility Total Magnetron Cathod required: 3 (Two DC, 1 RF)</p>	
Substrate Holder Substrate Heater Temperature measurement Substrate Rotation	<p>4" size (demountable type) Temperature 500° – 600° C (Instant heating with quartz lamp preferable) RTD / Thermocouple to be provided for measuring the substrate temperature (Must be controlled Automatically) Substrate rotation Must (preferable in different speed) Magnetic Coupling with DC Motor drive mechanism Future extension need to be included to possible plasma etching of the substrates before deposition</p>	
DC Power Supply – 02 Nos.	Min 1 kw power supply need to be connected to the magnetron cathode	
RF Power Supply – 01 No	Min 13.56 MHz, 600 watt RF Generator with auto matching network and cables	
Vacuum Pumping System	<p>Turbo Molecular Pump (TMP): must be having minimum pumping capacity 400 lps pumping capacity (Must be original Brand new from Make: Edwards/ Pfeiffer / Leybold/Agilent with warranty certificate) No refurbished TMP will be acceptable; TMP instrument controller, inlet screen, etc, Rotary Vacuum Pump required: 350 LPM (minimum pumping capacity) Required Digital Vacuum Gauges for both the pressure ranges of: (Atm. to 10^{-3} mbar) & (10^{-2} to 10^{-8} mbar) (Types of gauges must be mentioned in the quotation) SS Plumbing line, collar, etc.,</p>	

	High vacuum gate valve, backing, roughing and air admittance valve : Pneumatically Operated Safety devices and interlocks to be given Chamber Baking system included
Automation	Must PLC with HMI for semi automation (Vacuum cycle : Valves, pumps) with Mimic diagram
Capacitance Gauge	Must be provided MOC : Inconel Range : 0 to 10 bar
Gas Delivery Arrangement	Mass Flow Controllers: Total 02 Nos. (Preferable: MKS /Aalborg/Alicat, USA) Gases : Argon & Oxygen Flow Range : 0 to 100 sccm Gas manifold with inlets, outlets, valves, fittings, etc. to be provided all valve should be controlled with software programm or so.....
Digital Thickness Monitor	To be provided with feed through and cables for measuring the coated thickness
Control Console	MOC : Mild Steel ; Powder coated To house necessary instrumentation, controls, etc.,
Support Structure	MOC : MS Channel and angles; Must be painted Castor wheels to be provided for mobility with jack bolt
Leak Testing	Should be leak tested using HMSLD to a leak rate $\leq 1 \times 10^{-9}$ std. Cc / sec.
Warranty required	01 -03 Years from the date of installation commissioning and acceptance of system/manufacturing/assembling warranty (03 year preferrable)
Service AMC required	Must be given for three years after standard warranty 01 year
Installation & Commissioning with Training	Must be included in total price and need to be completed at IIT BHU, Varanasi
Documents	Must be supplied with Operation & Maintenance Manuals, other accessories to handle vacuum instrumens, other Flanges, all mechanical instruments to handle the vacuum systems or so

ACCEPTANCE CRITERIA:

- 1) Company must be an Original Equipment Manufacturer of said electronic systems (Preferable) / Dealers quoting must submit the OEM Authorization letter for submitting the tender
- 2) Vendor must have supplied few numbers of said RF / DC Sputtering Unit similar to the given specifications to various government Labs / Institutions (Like in IITs) and foreign lab/universities/institutes will be preferable.
- 3) List of Organization details to be submitted along with offer where similar type of RF / DC Sputtering Unit supplied earlier with contact details & Performance / installation reports.

The Sealed quotation will be opened on 24.02.17 at 3-4pm in the office of The Head, Department of Ceramic Engg., IIT (BHU) (this is mandatory in case of e-publishing).

DR. SANTANU DAS
Assitant Professor
Department of Ceramic Engineering
IIT (BHU) Varanasi - 221005


(PI OF THE PROJECT)

Dr. Santanu Das,
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INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI

TO BE RETURNED

Following proforma should be filled in and duly signed by the firm and sent alongwith the quotation. (Please refer to the detailed instructions/notes before filling this proforma).

1. Validity of the offer :
2. Approximate Delivery Period :
3. (a) Whether rates have been quoted F.O.R. site and covers packing forwarding and insurance charges. : YES / NO
- (b) If not, please mention the same :
4. (a) Whether the prices are inclusive of Sales Tax and other taxes. : YES / NO
- (b) If not, kindly specify the amount / rate :
5. If the Sales Tax is charged extra, declaration for charging Sales Tax correctly attached. : YES / NO
6. (a) Whether supply will be made directly or through any Local / Regional / Authorized Dealer / Stockist : Directly/Stockist/Authorized Dealer
- (b) If through a Stockist / Dealer: -
 - (i) Name and full address of the Party :
 -
 - (ii) Whether the order to be placed with the : Principal / Stockist / Dealer
 - (iii) Who will raise the bill : Principal / Stockist / Dealer
 - (iv) Cheques will be drawn in favour of : Principal / Stockist / Dealer
 - (v) Whether any Delivery, Packing and Forwarding : YES / NO

Charges will be payable to local Stockist/Dealer: (Please specify the amount/percentage etc, if any)

7. Our terms of payment (Please indicate your preference by a (✓) mark). Please note that no other payment terms are likely to be accepted. .

(a) For Local Firms or if the bills are raised by the Local Dealers.

- (i) 100% Payment on bill basis :

OR

- (ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report.
(Only under exceptional cases)

(b) If the bills are raised by outstation Firms

(i) 100% Payment on bill basis :

OR

(ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation

and satisfactory report :

OR

(iii) D.G.S. & D. Terms of Payment for D.G.S. & D Rate Contract items

:

OR

(iv) 75% against Proforma Invoice (at site) or documents through Bank and 25% after receipt of materials in good condition, installation and satisfactory report.

:

OR

(v) 90% payment against Proforma Invoice (at site) or documents through bank and 10% after receipt of materials in good condition, installation and satisfactory report (Only under special Circumstances).

:

8. Whether any Excise Duty is payable on the items. : YES / NO
If yes, indicate the amount / percentage. :%

9. Whether any installation charges are payable extra. : YES / NO
If yes, amount to be specified. :

10. Whether any discount for educational institution :
offered on the printed price list of the manufacturer. : YES / NO
Please mention the amount / percentage. :

11. Whether the product is on DGS &D/D.I. Rate contract.
If yes, please enclose a photocopy of the same. : YES / NO

12. Whether the product bears I.S.I. Mark. YES / NO
If yes, please mention the I.S.I. License no. :

13. (a) Whether the firm is Sales Tax payer. : YES / NO
If yes, please mention the Sales Tax Numbers. :

(b) Whether the Local Dealer(s) is / are Sales Tax payer(s) : YES / NO
If yes, please mention the Sales Tax numbers of each :

14. Whether printed / authenticated price list of the Firm's Products and Catalogue etc. enclosed. : YES / NO

Signature of the Authorised Official with Seal

TO BE RETURNED WITH QUOTATION

UNDERTAKING

WE HEREBY UNDERTAKE THE FOLLOWING:

- 1.** We will not sell the product (s) to other institutions, bodies and also in the market on the rates less than those quoted by us to the Institute.
- 2.** The goods on which Sales Tax has been charged are not exempted for payment of Sales Tax under C.S.T. Act or U.P.S.T. Act or the rules made there under and the amount mentioned on account of Sales Tax on goods is not more than what is payable under the provisions of the relevant Act or Rules made there under.
- 3.** The rate of Excise Duty mentioned in the quotation is in accordance with the provisions of the rules and the same is payable to the Excise Authorities in respect of the stores.
- 4.** The goods / Stores / articles offered shall be of the best quality and workmanship and their supply will be strictly in accordance with the technical specifications and particulars as detailed in the quotation.
- 5.** The information furnished by us in the quotation is true and correct to the best of our knowledge and belief.
- 6.** We have read and understood the rules, regulations, terms and conditions and agree to abide by them.

***Authorised Signatory
(Seal)***