

**INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE  
2A & B, RAJA S.C.MULLICK ROAD  
JADAVPUR, KOLKATA-700032**

**Tender No.: SSP/DB/DST/15/01 dated 01.01.2015**

**Sub: RF & DC Sputtering System under the DST project**

**Sealed tender** in two bids system (**Technical Bid & Financial bid**) is invited from bonafide, resourceful and eligible manufacturers/exclusive distributors for **RF & DC Sputtering System**.

**Part – I (Technical Bid)** of the tender should contain technical details and commercial terms and conditions and **Part – II (Price Bid)** should indicate group-wise price as mentioned in the Technical Bid where applicable. The Technical Bid and Price bid are to be submitted in two separately sealed envelopes distinctly marked accordingly and both to be put inside another envelope, which should be sealed and super scribed with tender notice no. and due date. The bidders may submit bids duly signed in their own letter heads.

Complete tender bids should reach the **office of the Department of Solid State Physics, Indian Association for the Cultivation of Science, 2A & 2B Raja S. C. Mullick Road, Jadavpur, Kolkata – 700032** on or before the scheduled date & time specified below.

<b>Tender Notice No</b>	<b>SSP/DB/DST/15/01 dated 01.01.2015</b>
<b>Last date and time of submitting tender</b>	<b>6<sup>th</sup> February, 2015 at 11.30 A.M</b>
<b>Pre-bid meeting</b>	<b>20<sup>th</sup> January, 2015 at 3.00 P.M.</b>
<b>Date and time of opening tender</b>	<b>6<sup>th</sup> February, 2015 at 12.00 noon</b>
<b>Place of opening tender in</b>	<b>J.C. Bose Hall, IACS Campus</b>
<b>Contact</b>	<b>E-mail : <a href="mailto:sspdb@iacs.res.in">sspdb@iacs.res.in</a> Tel. +91-33-2473 4971 (ext. 1316)</b>

The technical bids will be opened first to evaluate the technical specifications of the equipment thereafter, the Price bids of only technically qualified bidders will be opened.

#### **1. TECHNICAL BID:**

The Technical Bid should contain technical specifications and kept in a separate envelope duly super scribed as "Technical Bid" on the outer side of the envelope as detailed above.

## **Technical specification for RF & DC Sputtering System**

### Specifications for RF sputtering system

- 1) 16ö dia 12ö tall SS 304 cylindrical chamber with ports for 2 numbers of sputter guns in confocal position, ports for sample holder, pump, gauges, gas inlet, view port, venting etc.
- 2) Flange mounted Magnetron sputter sources (2ö target) with inbuilt shutter (magnetic coupled). Facility to move the gun in and out through an O ring seal (2 numbers). It is preferable to have the capability of mounting 1ö target also in the same gun.
- 3) CF 150 SS Gate valve for isolation and automated pressure control. Bellow sealed shaft movement and all seals Viton O rings.
- 4) Digital Mass flow controller for Ar, N2 and O2 gases with 0-100 SCCM flow (total 3 numbers).
- 5) Heated and rotating sample holder for min 4ö dia substrate (or 3 to 4 substrates of smaller sizes). Maximum working temperature range RT-8000C.
- 6) Provision for liquid N2 substrate temperature during deposition.
- 7) PID programmable temperature controller for the sample holder. Multi profile programming.
- 8) DC supply 1000V, 1 amp, 1 number with short circuit protection and current limit option.
- 9) PID programmable water chiller for cooling the sputter sources and sample holder electrodes.
- 10) Flow switch interlocks water manifold etc. (to make sure the sputter sources does not turn on without water flow).
- 11) Thickness monitor mounted on flange with water cooled crystal holder, 1 set of crystals, measuring electronics etc.
- 12) RF powers supply 300W with auto matching network, cables etc.
- 13) Pumps and gauges (air cooled Turbo pump with controller, cold cathode gauge with display, cables etc)
- 14) Frame for mounting the system along with required rack for mounting electronics.
- 15) Automatic pressure (precise pressure measurement during sputtering) controller (sputtering/working pressure within 1-75 mT) using capacitance manometer, controllable gate valve. (Software and PC/laptop included)

- 16) Chiller should be interlocked to components which require water.
- 17) Foreline valve and roughing valve should be interlocked.
- 18) Main valve interlocked.
- 19) Installation and Integration with user provided gas.
- 20) 2 years Warranty

Optional:

- 1) Option for Plasma annealing without sputtering. III.

## **2. PRICE BID:**

The financial bid indicating (item-wise) price for the item (s) mentioned in the technical bid should be kept in a separate sealed envelope duly super scribed as "PRICE BID" on the outer cover of the envelope as already detailed above. The price bids of only technically qualified bidders will be opened and they will be intimated the date and time of opening at their email id-s. Rest of the bids will stand rejected.

PRICE: Price to be quoted in FOB/CIF/EX WORKS basis. Name of the particular Port from where our authorized forwarder will lift the consignment must be mentioned clearly with FOB/CIF/EX WORKS price.

## **3. BID SECURITY:**

- 1) The financial bid should be super scribed as "PRICE BID" on the outer cover of the envelope.
- 2) Bid Security (EMD): An Account Payee Demand Draft of Rs.70,000/- in the name of "Indian Association for the Cultivation of Science" is to be furnished by the bidders as Bid Security money or Earnest Money Deposit (EMD).
- 3) The Demand Draft for the Bid-Security money should have at least 45 (forty five) days validity period after the opening of the Bids.
- 4) In case of non-award of the work the Bid Security money would be returned to the unsuccessful Bidders.

## **4. PERFORMANCE SECURITY:**

An Account Payee Demand Draft of 10% of the order value in the name of "Indian Association for the Cultivation of Science" is to be furnished by the successful bidder as Performance security. Performance security money should remain valid for a period of 60 days beyond the date of completion of

all contractual obligations of the supplier including warranty obligations. Bid security money will be refunded to successful bidder on receipt of the Performance security money.

## **5. ANNUAL MAINTENANCE CONTRACT (AMC) RATES FOR FIVE YEARS**

AMC should be criteria for making comparative statement with regard to the technical bid and AMC rates for price bid. The payment of AMC charges will be made as per existing practice.

## **6. GENERAL INSTRUCTIONS:**

- 1) Incomplete & conditional tenders and tenders received after the due date will be summarily rejected without assigning any reasons thereof.
- 2) Tender Notice Number and tender for "**RF & DC Sputtering System**" should clearly be written on the envelope.
- 3) At any time prior to the bid due date, IACS may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder during pre-bid meeting, modify the bidding documents. The amendment(s) will be notified on the Institute website. Prospective bidders are advised to occasionally visit the website ([www.iacs.res.in/tender](http://www.iacs.res.in/tender)) for any amendment.
- 4) Payment: 100% Advance payment by T/T against 10% Performance Bank Guarantee.
- 5) Warranty: Minimum 2 years.
- 6) Installation/Demonstration/Application Training at site: Free of cost by the supplier
- 7) Service facility: Supplier should mention their details of service setup and Manpower in Kolkata who are responsible for after sales support. Response time should be within 24 hours.
- 8) Validity of tender: Tender submitted shall remain valid at least for three months from the date of opening the tender. Validity beyond three months from the date of opening of the tender shall be by mutual consent.
- 9) The tender should accompany a compliance chart.
- 10) The rate should be inclusive of all taxes, transportation etc. Nothing extra will be paid in addition to the quoted rate.
- 11) The model number, make, and a printed literature of the product shall submit positively.

- 12) Proposed delivery schedule should be mentioned clearly.
- 13) Manufacturers/exclusive distributors/vendors should have history of supplying this type of instrument to this or other Scientific Organizations.
- 14) Authorized Dealership Certificate is must in case of principal manufacturing company is not quoting directly.
- 15) Guarantee certificate, users manuals etc. are to be handed over to the user after successful commissioning of the system.
- 16) In the event of date being declared a closed holiday for purchaser's office, the due date for submission of bids and opening of technical bids will be the following working day at the appointed time.
- 17) In case of any dispute, the decision of the Institute authority shall be final and binding on the bidders.
- 18) For any clarification regarding technical specifications, etc. please send your queries to " Prof. D. Basak, e-mail : [sspdb@iacs.res.in](mailto:sspdb@iacs.res.in)
- 19) The Institute reserves the right to reject any or all of the tenders received without assigning any reason thereof.

REGISTRAR