NANOSCALE RESEARCH FACILITY (NRF)
INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI- 110016

Date: May 30, 2011

NOTICE INVITING QUOTATIONS

Ref: No. NRF/GLADChamber/2011 **Due date: June 15, 2011**

Please send your quotations to the undersigned in a sealed cover super scribed with our Ref no. & due date for the following items (High vacuum chamber for e-beam/thermal deposition with substrate rotation assembly for Glancing Angle Deposition (GLAD)).

S.No.	Name of item with full specifications	quantity
1	**High vacuum chamber** SS304 non-magnetic high quality material should be used Ultimate pressure: ~ 1 x 10^{-78} mbar Chamber inner diameter 18” and chamber height is 19” The chamber contains five CF ports on side walls (one 10” CF, two 8” CF, two 6”CF, four 2.75” CF) A fast entry door (about 12” x 10’’) for easily loading/unloading samples and substrate inside the chamber An e-beam gun (telemark, model no. 247) available to us will be mounted inside the chamber, so there will be 5 holes on bottom plate of 1” dia each for installation of e-gun. For thermal deposition we need two 1 inch high current feedthroughs (400 Amp, water cooled) mounted on bottom plate having separation of 75 mm for boat A shutter assembly installed from bottom for boat and e-gun. One gate valve to isolate the turbo pump (on 10 inch) CF port from the main chamber Vent valve 6” CF View port on fast entry door	1

	The chamber should be electro polished on both the sides	
2	**GLAD substrate holder assembly** Flange mountable (8”CF) The substrate should be placed above the e gun source on the vertical axis passing through the chamber center. The substrate can be rotated on its own axis as well as it can be tilted (tilt angle from 90 degree to 65 degree with respect to a vertical axis passing through the chamber center). The rotation is by Stepper motor (computer programmable) Typical rotation range should be from 0.1 rpm to 20 rpm. Removable sample holder of size about 2” dia Substrate heater range room temperature to 300º C.	1

All the necessary installation must be provided by the vendor. Please send your technical quotations showing the complete chamber design. Vendors may discuss about their queries through email and phone.

Warranty: (Required) On-site comprehensive including part replacement specify for 1 year. This should be clearly shown in the technical as well as in financial bid.

Terms and conditions covering submission of quotations

1. **DELIVERY:** The rate must be C.I.F. IIT Delhi (Air Freight), Delhi Airport

2. **TERMS OF PAYMENT:** Letter of credit

3. **VALIDITY OF QUOTATIONS: three months or more**

4. **CORRESPONDENCE:** No correspondence regarding acceptance /rejection of quotation will be entertained.

5. **SUBMISSION OF QUOTATIONS:** Separate quotations should be submitted for technical bid and commercial bid in two separate and clearly marked envelopes.

6. **DISCOUNTS/REBATES:** Special discounts/rebate wherever admissible keeping in the view that supplies are being made for an Educational institute may be indicated in the

offer.

7**. DIRECTOR'S RIGHT:** Director, IIT Delhi reserves the right of acceptance or rejection of any or all quotations without assigning any reason.

Please specify terms and conditions. The quotations must have a validity of 3 months. Sealed quotations (separate technical and financial) may be send to the following address.

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