

TENDER DOCUMENT

TENDER FORM

FROM:

TO

THE DIRECTOR,
Centre for Soft Matter Research
P.B.No. 1329, Prof. U.R.Rao Road
Jalahalli
Bangalore-560 013

Sir,

I/We hereby offer to supply the Items/Equipment indicated below at the price hereunder quoted and agree to hold this offer open till (valid till) _____. I/We shall be bound to supply the Items/Equipment hereby offered upon the issue of the Purchase Order communicating to the acceptance thereof on or before the expiry of the last mentioned date. You are at liberty to accept any one or more of the items of such Items/Equipment. I/We, notwithstanding that the offer in this tender has not been accepted in whole, shall be bound to supply such items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance.

Sl. No.	Description of the item(s)	Quantity	Unit	Rate	Total Cost
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Place at which the Delivery is required : Centre for Soft Matter Research
P.B.No. 1329, Prof. U.R.Rao Road
Jalahalli, Bangalore-560 013

Date by which the supplies are required : 6 - 8 weeks from the date of order

2. I/We have understood the items of the tender annexed to the invitation to the Tender and have thoroughly examined the specifications/drawing and /or pattern quoted or referred to herein and/are fully aware of the nature of the items/Equipment required and my/our offer is to supply the items/Equipment strictly in accordance with the requirements subject to the terms and conditions contained in the Purchase Order communicating the acceptance of this tender either in whole or in part.
3. I/We understand that the Director shall have power to reject any or all offers without assigning any reason.
4. I/We also understand that the offers will be evaluated by a committee of experts whose recommendations shall be given due consideration in taking a final decision by the competent authority.

Date:

Signature and Seal of Supplier

INSTRUCTIONS TO SUPPLIERS

1. Tenders should be sent in sealed and superscribed envelopes with mention of Tender No. date and date of opening. Only one Tender should be sent in each envelope. Separate tender shall be sent for equipment in case of quotes more than one equipment.
2. Late and Delayed Tender will not considered at all.
3. Duties, Taxes where legally leviable and intended to be claimed should be distinctly shown separately in the Tender.
 - a) Your quotation should be valid for 90-120 days from the date. of opening of tender.
 - b) Prices are required to be quoted according to the units indicated in the annexed tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
4. Preference will be given to those tenders offering supplies from ready stocks and on the basis of delivery at Site.
5.
 - a) All available Technical Literature(s), Catalogue(s) and other data in support of the specifications and details of the item(s) should be furnished along with the offer.
 - b) Approximate net and gross weight of the items offered shall be indicated in your offer. If dimensional details are available the same should indicated in your offer.
 - c) Insurance against all the transit and handling risks on a 'WAREHOUSE to WAREHOUSE' basis for a sum equivalent to 110% of C & F Cost shall be separately indicated.
 - d) SPECIFICATIONS:
Items/Equipment offered should strictly conform to our specifications. Deviation, if any should be clearly indicated by the Supplier in their quotation. The Supplier should also indicate the Make/type No. of the stores offered and provide catalogue(s), Technical literature(s) and sample(s), wherever necessary along with the quotations. Test certificates wherever necessary should be forwarded along with the supplies. Whenever options are called for in our specifications, the Supplier should address all such options. Wherever specifically mentioned by us the Supplier could suggest changes to specifications with appropriate response for the same.
6. Full details of supplies of the same / similar equipments made to users in India shall be enclosed.
7. Full details of facility of service after sales available in India for the period covered by warranty and thereafter shall be furnished.

8. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.
9. The Supplier should supply along with the tender, the Banking information for payment or any other purpose
10. A complete set of instruction and operation manual should be supplied at the time of installation.
11. Final performance should be guaranteed at the site.
12. Compliance Statement for the specifications in the format given below should also be enclosed.

Name of the equipment :

Specifications as per CSMR tender document:

Specifications as per your quotation

Remarks, if any

TERMS AND CONDITIONS OF CONTRACT

1. DEFINITIONS:

- a) The terms ‘Purchaser’ shall mean the Director, Centre for Soft Matter Research, Bangalore-560 013.
- b) The term ‘Supplier’ shall mean, the person, firm or company with whom or with which the order for the supply of Items/Equipment is placed.
- c) The terms ‘Purchase Order’ shall mean the communication signed on behalf of the Purchaser by an officer duly authorized intimating the acceptance on behalf the Purchaser on the terms and conditions mentioned or referred to in the said communications accepting the tender or offer of the supplier for supply of Items/Equipment.

2. PRICES:

The price may please be indicated on unit basis only.

Duty Exemption:

Please note that we are eligible for issue “Customs duty Exemption Certificate”, under the Govt. of India notification No. 11/280/92-TU-V dated 9 March 2010 valid till 31 March 2013.

3. GUARANTEE AND REPLACEMENT:

- a) The Supplier shall guarantee that the Items/Equipment supplied shall comply fully with the specifications laid down, for material workmanship and performance. The Guarantee should be for a period of one year minimum from the date of supply.

4. PACKING, FORWARDING AND INSURANCE:

The supplier will be responsible for the stores being sufficiently and properly packed for transport by sea or air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of packing shall be done by and at the expenses of the supplier. The Purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the Supplier and the Purchaser shall pay only for such Items/Equipment as are actually received in good condition, in accordance with contract.

5. TEST CERTIFICATE:

Wherever required Test Certificate should be sent along with the relevant dispatch documents

6. ACCEPTANCE OF ITEMS/EQUIPMENT:

- a) The Items/Equipment shall be tendered by the Supplier for inspection at such places as may be specified by the purchaser at the Suppliers own risk, expenses and cost.
- b) It is expressly agreed that the acceptance of Items/Equipment, for is subject to final approval by the Purchaser, whose decision shall be final.

7. DELIVERY PERIOD:

Delivery is the essence of the contract. The supplier should adhere to delivery schedule as indicated in the Purchase order.

8. EXTENTION OF DELIVERY TIME:

As soon as it is apparent that supply dates cannot be adhered to, an application shall be sent by the Supplier to the Purchaser. If failure, on the part of the Supplier to deliver the Items/Equipment in proper time shall have arisen from any cause which the Purchaser may admit as reasonable ground for an extension of the time (and his decision shall be final he may allow such additional time as he considers it to be justified by the circumstances of the case). In case of Letter of Credit the banking charges for the LOC amendment will be on suppliers account.

9. PAYMENT:

Preference will be given to the supplier whose payment terms is on Sight Draft.

10. BANKING CHARGES:

In case of payment through Letter of Credit the banking charges out side India will be on suppliers account.

HIGH RESOLUTION X-RAY DIFFRACTOMETER (XRD) SYSTEM
WITH ONE DIMENSIONAL SOLID STATE DETECTOR
AND MULTILAYER MIRROR TYPE MONOCHROMATOR
FOR POWDER AND THIN FILM SAMPLES

REQUIRED QUANTITY: 1 No

DETAILED SPECIFICATION: Detailed technical specification of high resolution x-ray diffractometer (XRD) system to be used for powder and thin film samples

The XRD system must be complete in all respect so that the system is suitable to work in both **Bragg-Brentano and Parallel Beam Geometry** using multilayer mirror optics. The changeover from Bragg Brentano to parallel beam geometry and vice versa must be carried out using the software controlled alignment tool. The XRD system must be equipped with automatic component recognition system in real mode.

Following are the general specifications required:

- a. **X-Ray generator:** Sealed x-ray generator (Power: 3 kW, Voltage: 20-60 kV in step of 1 kV, Current: 20-60 mA in step of 1 mA) with high stability.
- b. **X-ray tube:** Cu radiation, long fine focus (one line and one point focus), ceramic insulated. The tube must have an auto detection facility for the type of tube and the focus (either line or point) recognition in real time mode.
- c. **Detector:** Very-fast solid state 1 dimensional detector with large active area and large 2θ angular coverage. The detector must be able to operate in both fixed and scanning mode. Necessary hardware & software must be in-built to reduce the fluorescence. It must be able to work in both 0 dimensional and 1 dimensional mode.
- d. **Multilayer mirror optics** with very low beam divergence for Cu radiation suitable for GID, X-ray reflectometry applications must be included in the basic offer. The multilayer mirror optics will be used in the primary beam side.
- e. **Goniometer:**
 - Vertical goniometer, θ/θ geometry
 - Sample stage in horizontal position
 - Scanning from 0.5° to $160^\circ 2\theta$
 - Step size resolution-better than 0.0002°
 - Measuring circle diameter: variable from approximately 500 to 600 mm or above suitable for high intensity based as well as high resolution based XRD experiments.

f. **Sample stage: Rotational sample stage** with facility to control the rotation through software to be offered in the basic system. Sufficient space to apply external magnetic field to the sample.

Reflectometry sample stage with complete software controlled movements of z , ϕ , ω and knife edge collimator to be offered (**optional item**).

g. **Grazing incidence diffraction (GID) setup**-parabolic multilayer mirror which can produce highly parallel beam in the primary side, long collimator slit (0.12 deg. divergence) for high resolution data & monochromator in the secondary side with necessary sample stage if additionally required. All necessary hardware and software for GID application must be offered in complete in the basic system /or comparable alternative.

h. **Slits:** Automatic software controlled variable divergence slit system and anti scatter slit system for fast detector.

i. **X-Ray radiation enclosure:** as per the latest international safety norms. Necessary safety certificate may please be enclosed with the offer.

j. **Software:**

- Full instrument control, auto alignment for the XRD system along with automatic component recognition. Data acquisition, processing, search match, background subtraction, α_2 stripping, smoothing, XRD system diagnostic facility to be included in the basic system.
- ICDD PDF2 database to be included in the basic system (**optional item**).
- Thin film reflectometry (data collection and data evaluation) (**optional item**).

k. **Low temperature attachment** for carrying out non-ambient phase transition studies in the temperature range from 10 to 450 K (**optional item**).

l. **System alignment guarantee:** The alignment guarantee for 2θ peak position must be ± 0.01 degree 2θ over the entire angular range. This guarantee must be validated at site by using standard reference sample for peak position accuracy. The standard sample is to be included in the scope of supply.

m. **Other essential accessories:**

- Compatible locally made external chiller.
- Online minimum 20 kVA UPS for the whole system including XRD setup and external chiller system with the back up of atleast 15 mins.
- Latest computer with high end configuration, DVD read & write facility, external portable USB data backup hard drive (at least 500 GB) and colored laser printer.

- Hardware and software for carrying out remote diagnostics.
- n. Training, installation and warranty should be offered, all attachments and software must be original and factory licensed along with individual catalogue no.
- o. The offered system must be upgradable at our site in future with the hardware and software for the applications as mentioned under optional items.