NATIONAL CENTRE FOR PHYSICS

SHAHDRA VALLEY ROAD NEAR NIPS, ISLAMABAD

Procurement of Multi-Purpose X-ray Diffractometer (Indent # 062)

Company Seal…… Signature & Date……..

National Centre for Physics, Islamabad

[Procurement Section]

Part A:

Subject: **INVITATION TO BID AND GENERAL INSTRUCTIONS**

Dear Sir,

You are hereby invited to submit the Tender for the supply of **Procurement of Multi-purpose X-ray Diffractometer** in accordance with the description of items at **Annex "A-062".**

1. **Prospective Bidder should particularly Note that:**

a. Bid through Telex/Fax shall not be acceptable.

b. The Purchaser does not take any responsibility for collecting the bids from any agency/office.

c. Authorized/Technical rep should make it convenient to attend the Tender opening.

d. The Purchaser reserves the right to increase or decrease the quantities and accept or reject any or all bids or cancel any or all items at any time of procurement process with assigning reasons.

e. Equipment/Items will be selected on lowest evaluated basis/Item wise lowest as per procurement devise.

f. The Purchaser reserves the right to have the Equipment/items inspected by its own representatives or through third party.

g. The Proposal must be fully conformed to Specifications and Terms & Conditions of the Tender Enquiry.

h. NCP will evaluate the bids on single item basis (if deemed necessary). Suppliers are advised to quote competitive price for all or any items.

i. Bids against this tender are invited on **Single Stage –One Envelope Procedures,**

j. Signed Copy of this bidding document must be submitted along with Bid.

k. Letter for nominating Rep. (Annex C) must be submitted along with bid.

GM Procurement
National Centre for Physics, Shahdra Valley Road
Near NIPS P.O. Box 2141, Islamabad.
Phone: (051) 2077337 Fax: (051) 2077394
URL: www.ncp.edu.pk,

Company Seal…… Signature & Date……..

Part B:

Instruction to Bidders (ITB):

1. **Delivery of Bids.** The Proposal is to be submitted as under: -

a. **Proposal.**

The Proposal indicating the quoted price in figures as well as in words along with essential literature / brochure/Drawings/Data Sheets should be enclosed in an envelope. Following information will be clearly marked on the envelope: -

(1) Proposal for Multi-purpose X-ray Diffractometer (Ind # 062)

(2) Firm/Company Name and address

(3) Do Not Open Before .....Date....Time

(4) Date of Opening

(5) Earnest Money**@2%** (Sealed within separate envelops)

(6) Questionnaire Form as per "Annex D"

b. Proposal should be in properly sealed envelope that will be marked with address of this office.

c. In case of any technical information, please contact **AM Technical through Contact No. 0337-7479171. Any query or question can be asked through email procurement@ncp.edu.pk**

d. The Bids duly sealed will be addressed to the following

GM Procurement
National Centre for Physics
Shahdrah Valley Road Near NIPS
Islamabad Ph: 051-2077343-412
Fax:051-2077394

2. **Date and Time for Receipt of Bids**

The bid document must reach this office until **1030 Hrs on 10 December, 2026** in the office of:

GM Procurement
National Centre for Physics
Shahdra Valley Road Near NIPS
P.O. Box No. 2141 Islamabad
Ph: 051-2077337
Fax: 051-2077394

Company Seal…… Signature & Date……..

3. Tender Opening

Bids will be opened on **10 December, 2026** at **1100 Hrs** half an hour after the Tender submission time. Only legitimate / authorized representatives of suppliers will be allowed to attend. These reps should be fully aware of the details of their Proposals and deviation if any. They must be fully authorized to take decision on the spot on behalf of their company.

4. Validity of Proposal.

The validity period of bids must be indicated and should invariably be not less than **90 days** from the date of opening of tender. Quoted rates within the valid period shall not be changed in any case.

5. Price:

a. The price of the each item should be quoted **DDP NCP** in Pak Rupees, price will be mentioned separately both in words and figures.

b. If the GST in proposal is not mentioned then it will be considered with GST. Therefore, it is advised to all suppliers to carefully fill the bid and mention prices are with or without taxes. It should be noted that after opening of bid any change in prices or taxes will not be made.

6. Authorized Dealer

Authorized dealership certificate of quoted brand can be provided by supplier.

7. Guarantee/ Warranty:

All the equipment should be brand new, from the current production and will be governed as per guarantee/ warranty clause. The Equipment should not be refurbished. Warranty i.e. (part/labor/onsite) must be quoted for 1 x Year at least or as per Manufacturer warranty policy.

- Bidders shall ensure that offered equipment shall not reach end of Life in next Five Years and provided equipment is from current year of production.

8. Language of Bidding Document:

The bid must be prepared in English language. If supporting documents and printed literature furnished by the bidder with the bid are not in English language, they must be accompanied by English translation of the relevant passages on part of supplier.

9. After Sale Services

The "Supplier" should undertake to provide free after sales service for the entire warranty period that must not be less than 1 x Year from the date of supply against each Equipment.

Company Seal…… Signature & Date……..

10. Spare Parts

On expiry of warranty period the "Supplier" must undertake to supply spare parts for 5 years at market price on demand.

11. Licensing:

All the software/hardware/connectivity should be licensed with full capacity and must be ready from day one. Any other required license cost must be quoted separately for tools and feature (if required).

12. Terms of Payment:

Payment will be made through cross cheque clear after inspection by user. However, it is to be noted that Advance Payment will not be made in any case. Payment will be made after clear inspection report and allied documents, bills, sales tax invoice and delivery challan for processing of payment.

13. Performance Guarantee:

Performance Guarantee equal to **5% of contract/PO** value will be required to be submitted by the supplier along with Acceptance of Purchase Order/Contract for each Equipment/ Instrument **(if applicable)**. Performance Guarantee will remain valid up to completion of the warranty/guarantee period. It will be considered automatically extended up to the Warranty/Guarantee time period.

14. Withdrawal of Proposal.

If the supplier withdraws its Proposal within validity period, the competent authority may place such supplier under embargo for a period of six months, which may be extended up to one year and his bid security will also be forfeited.

15. Important Documents along with Bids:

Photocopies of following documents will be provided / attached with Proposal: -

a. A copy of letter from the Bank showing supplier's financial capability.
b. GST Certificate and Income Tax Certificate of supplier.
c. Previous Five Years of performance record for handling same type of projects.
d. Security wise cleared Certificate of supplier.
e. Copies of Purchase Order/contract from any other organization/institute.

16. Disqualification:

Proposals are liable to be rejected if:-

a. Earnest money is not attached with the Proposal.
b. Proposals are found conditional or incomplete in any respect.

Company Seal…… Signature & Date……..

c. Manufacturer's relevant brochures and technical details on major equipment, assemblies are not attached in support of specifications.

d. Received after the appointed / fixed date and time.

e. There is any deviation from the General / Special / Technical Instructions.

f. Multiple rates are quoted against one item.

g. Proposals containing unauthenticated amendments / corrections / overwriting.

h. If the Proposal is found to be based on cartel action in connivance with other bidders.

17. Earnest Money / Bid Security.

The Proposal must be accompanied with **2%** of total bid value in the shape of Bank Draft / Pay Order in favor of NCP.

a. Earnest money to the unsuccessful bidders will be returned on acceptance of lowest technically acceptable bid.

b. Earnest money of the supplier / suppliers with whom contract is concluded will be returned on submission of Performance Guarantee stipulated in the contract.

18. One Bid per Bidder

Each bidder shall submit only one bid either by himself, or as a partner in a joint venture. A bidder who submits or participates in more than one bid (other than alternatives pursuant) will be disqualified.

19. Cost of Bidding

The bidders shall bear all costs associated with the preparation and submission of their respective bids and the purchaser will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

20. Delivery

The items are required to be delivered within the period as mentioned in P.O/Contract. Delivery at NCP Site is purely responsibility of supplier, NCP will not pay any cost for loading/unloading of equipment.

21. Inspection

The inspection will be carried out at NCP premises. Decision of NCP authorities shall be taken as final for inspection of Stores.

22. Rights Reserved.

NCP reserves full rights to accept or reject any or all proposals including the lowest, without assigning reasons.

Company Seal…… Signature & Date……..

23. Consignee:

The equipment must be consigned to GM Procurement, National Centre for Physics, Shahdrah Valley Road Near NIPS, Islamabad, Pakistan. Telephone No: +9251-2077337 and Fax No. 051-2077394.

24. Packing:

The packing of the merchandise must conform to the international standards.

25. Liquidated Damages:

If the seller fails to deliver a part or all of the goods within the delivery schedule, the Purchaser without prejudice to other remedies under Contract/PO, deduct from the Payment as liquidated damages, these liquidated damages if imposed, will be recovered at the rate of **1% of the value of stores supplied late per week** for the period exceeded. In addition to above if contracted goods are not received in accordance with the contractual delivery schedule and emergency material/stock have to be procured from the alternate sources at short notice, the supplier shall be bound to pay NCP, the entailing expenditure accrued as such. Further penalty shall be imposed for late delivery as provided in the contract/work order. In case of LD, supplier have to submit evidence of late delivery reason.

26. Acceptance Test Procedure

a. Items will be physically inspected, tested according to the given specifications Physical Checking of all Equipment, Specifications, Checking of Serial Numbers, Part No, Catalogue No, Brand Name, checked after Installation, Commissioning and Testing of equipment.

b. Equipment and accessories provided by the supplier to NCP must not be refurbished.

c. Delivered item will be checked for the physical as well as logical feature set mentioned in specifications.

d. Serial Number of all the items delivered to NCP must be verifiable from the respective Brand web portal or support center.

e. Warranty of equipment should also be verified from respective web portal.

27. Queries of Suppliers

It is to inform that all potential suppliers to contact Procurement Branch for any query question the same shall be addressed appropriately.

Company Seal…… Signature & Date……..

National Centre for Physics

Detailed specification Document

A-062

Sr.#	Items	Description/Specifications	Approx Price
1.	**Multi-purpose X-ray Diffractometer**	**X-ray Tube:** 1) Target: Cu, Mo, Ag, and Co 2) Focus size: 1*10mm^2 or 0.4*14mm^2 Rated power: 2.4KW	
		X-ray generator: 1) Maximum output power: 4KW high frequency high voltage generator 2) Rated voltage of x-ray tube:10~60kv, 0.1kv/step 3) Rated current of x -ray tube: 5~80mA, 0.1mA/step Output stability ≦0.005% (mains fluctuation ±10%)	
		Goniometer: 1) Goniometer structure: vertical goniometer θs-θd (sample fixed) scanning radius: Standard 225mm (150- 300mm continuously adjustable) 2) Scanning range: -110°~160° 3) Scan speed: 0.0012°~120°/min 4) Positioning speed: 1500°/min 5) ScanMode: Stepping, continuous, segmentation, transmission scanning 6) Minimum step angle: 0.0001° 7) measurement accuracy: ≦0.001° 2θ angle repeatability: 0.0001°	
		Detector 1) **MYTHEN2 R Detector** Preferably "**MYTHEN2 R 1K**" with 1280 channels	
		Cooling system Water cooling or Air cooling	
		Multiple Slot sample holder 8 or 12 position sample changer/Belt assembly with sample rotation for powdered samples	
		Accessories 1) High temperature Assembly. 2) Thin Film measurement Accessories	
		Training **Hands-on training on XRD machine handling and operation to be included in the quote for two participants.** The training ideally should focus on both theoretical understanding/software and practical operation, including sample preparation, data acquisition, instrument calibration, and analysis of diffraction patterns for phase identification and structural characterization.	
		Safety protection alarm type 1) **"X-RAYS ON" Warning Lights 2) Shutter Status Indicators Audible Alarms 4) System Status Lights 5) System/Overload Protection Alarms 6) Warning Signs**	
		Control software Automatic control voltage and current of x-ray tube, shutter of the X-ray generator and training automatically; Control the goniometer stepping scanning or continuous scanning and data collection; auto-save data, control and calibrate the goniometer, etc.	
		Data processing software For material structure analysis under Rietveld method (Preferably GUI mode), smooth and deduct background, qualitative and quantitative	

		analysis of material phases, Kα1, Kα2 peel off, Full spectrum fitting, peak fitting, half-width and grain size calculation, crystal cell measuring, diffraction data calibration, background, subtraction, quantitative analysis without standards, full spectral image fitting, XRD diffraction image simulation, etc.	
		Computer System Branded desktop computer/workstation, compatible with the offered XRD control and data processing software; latest generation Intel Core i7 (or equivalent/higher) processor; minimum 16 GB DDR RAM (expandable up to 32 GB); minimum 1 TB HDD/SSD storage; dedicated graphics card (minimum 2 GB) for smooth rendering of diffraction patterns and Rietveld refinement graphics.	

Note: All the components installed should be compatible with the system and each other.

Please tick the relevant box:

☑ Installation ☑ Testing ☑ Commissioning ☑ Training

☑ Warranty requirement Any other please specify

24/07/2026

Annex "B"

Format of Financial Offer

Sr. #	Items Description/Specifications	Quoted Brand	A/U	Qty	Unit Price	Total Price
1	**Multi-purpose X-ray Diffractometer (Ind # 062)** (As per Annex A-062)					
Total Amount with GST						

Terms & Conditions:

Please fill in the following essential parameters:

a. Validity of Offer: _____ days. (Should not be less than 90 days)

b. Delivery Period: _____ days. (After placement of Order)

c. Country of Origin: _____

d. Warranty/Guarantee: _____ months.

e. Details of Payment Recipient:

Name/Title:

_____

Address:

_____

_____

Company Seal…… Signature & Date……..

Undertaking

We have carefully read the terms and conditions mentioned in tender documents. We accept these terms & conditions.

Signature ……

Name …….

Designation……

Stamp…….

Company Seal…… Signature & Date……..

Annex "C"

To,

GM Procurement

National Centre for Physics,

Shahdra Valley Road, Near NIPS

Islamabad.

Subject: **Rep. Nomination**

We, M/s ……. hereby nominating Mr……. S/O …… CNINC ……. as Rep. for the tender of…….

He is fully aware with all the technical specifications of the quoted equipment and is authorized to take any financial decision at spot.

CEO/MD of the company

Company Seal…… Signature & Date……..

Annex "D"

QUESTIONAIRE

QUESTION 01 WHAT IS THE NAME AND Address OF THE FIRM?

_____

_____

_____

QUESTION 02 WHAT IS THE NAME AND ADDRESS OF THE FIRM PRINCIPAL?

_____

_____

Question 03 WHAT IS THE SALES & INCOME TAX NO?

National Tax Number	
Sales Tax Number	

(Attach copy of NTN & Sales Tax Certificate along with copy of last months deposited sales tax receipts)

QUESTION 04 PLEASE SPECIFY THE YEAR OF ESTABLISHMENT?

QUESTION 05 TYPE OF FIRM?

Sole Proprietor	
Partnership	
Private Limited Company	

(Attach copy of Bank Certificate in case of Sole Proprietor ship, Partnership deed in case of Partnership & Registration with SECP in case of Pvt. Ltd. Company.)

QUESTION 06 NAME OF THE OWNER (s)

S. No.	Name	NIC No.	Address & Tel. No.

(Attach copy of CNIC of each owner)

Company Seal…… Signature & Date……..