



सी एस आई आर -राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान

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CORRIGENDUM

PUR-144/EP/EMD/2021-22


Date: 06.09.2023

- 1) After the Pre-Bid meeting held on 05.09.2023, Technical specifications of Desktop X-Ray Diffractometer are amended and revised technical specifications are as per Annexure-A.
- 2) Training requirement mentioned in Chapter 3 of the tender document may be read in accordance with the Point No. 9.0 of Annexure-A of this corrigendum.

Qualification requirement, Terms & Conditions, Bid submission end date and Bid opening date will remain same.


भंडार एवं क्रय अधिकारी
Stores & Purchase Officer
CSIR-NEERI, Nagpur


06/09/2023


06/09/2023

Revised Technical specifications of **Desktop X-Ray Diffractometer****Technical Specification for the purchase of Table Top (Bench top) X-Ray Diffractometer (XRD)**

Sr. No.	Technical Specification
1.0	X-ray Generator
1.1	Tube load- 300W or above
1.2	Tube voltage-40k V or more
1.3	Tube current - 7.5 mA or more
1.4	Safety Features /warning indicator <ul style="list-style-type: none"> • X-Ray On/Off Status indicator • X-Ray Shut-off on failure • Emergency Stop Switch
2.0	Goniometer Details
2.1	Type – Theta / Theta or Theta Theta or Theta 2 Theta
2.2	Radius minimum 140mm or more
2.3	Scanning range: 0 to +140° 2 Theta or better
2.4	Scanning method: θ -2 θ or θ - θ coupled
2.5	Variable/suitable Divergence Slit
2.6	SS (Scattering/Anti-scattering slit)
2.7	Soller slit-2.5° or 0.04 rad or better
2.8	K-Beta reduction Ni Filter or equivalent or better
2.9	Sample Holder-Standard sample holder for accommodating both solid (metallic) and powder samples.
3.0	X-ray Detector: Suitable solid state detector should work in both 0D and 1D for data collection and analysis.
3.1	Detector should be capable to suppress fluorescence
3.2	Spatial resolution of each pixel - 100 μ or less
4.0	Software should be a product of the Manufacturer. Software includes:
4.1	Complete operation and control of system, user friendly interface, data acquisition and processing, calibration, report generation.
4.2	Peak Search/match, background subtraction, Profile/Data smoothing
4.3	Quantitative or Semi-Quantitative Analysis
4.4	Latest ICDD PDF 2 database software with five years license - 1 no.
4.5	Si or Alumina corundum or LaB6 Standard (NIST Traceable)
5.0	X-ray tube Cooling system to keep X-ray tube cool

5.1	Internal Chiller or equivalent X-ray tube internal cooling technique of inbuilt recirculation or equivalent low power consumption technique which doesn't require chiller
6.0	Computer
6.1	Branded all in one PC, i5 processor OR better, 64 bit, 8GB RAM or more, minimum 3 USB port, Network port, 1TB HDD with Licensed Windows 10 Pro or Windows 11 version of latest type with 23" LED monitor suitable for the above XRD system
7.0	Sample Plates/sample holder/cavity
7.1	Aluminum or equivalent sample holder-4 nos. Silicon zero or low background sample holder - 3 nos. Glass or PMMA or acrylic made sample holder - 10 nos. (5 each for two different sizes lower and higher volume/size samples)
7.2	Air Sensitive OR Protective OR airtight Sample holder for holding reactive or air sensitive sample - 1 no.
8.0	Complete installation kit and instrument operation manual / hardware guide, software manual.
9.0	Installation Commissioning, After complete installation - Minimum two days onsite software and hardware operation training. After one month of commissioning - Two days of application training
10.0	Electrical power requirements 230 VAC ± 10% @ 50 Hz ± 1%
11.0	Warranty
11.1	1-year standard warranty + 1-year extended warranty for all parts inclusive. Price for 1-year extended warranty to be included as an integrated part of tender (not as an optional item).