

CORRIGENUDM – 1

Tender Reference No: GTB9/BASU/2023/02/XRAYSCATSYS

Tender Name: Small Angle X-ray Scattering System

Corrigendum details: Extension of due Date for Bid Submission Amendment in Annexure I

Extension of Bid Submission Date

The due date for the submission of bids has been extended to 20/03/2023 @ 3 PM.

The bid opening is 20/03/2023 @ 5 PM.

Amendment in Annexure I

Bidder Eligibility Criteria-I

Sl. No	Orginal	Revised
1	The bidder/OEM should have supplied and installed same LCR Meter model quoted at least 5 similar items to IITs, NITs, IISERs, CSIR Labs or other Govt. R&D organizations in the last 10 years worldwide, PO copies or installation certificates along with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.	The bidder/OEM should have supplied and installed same/similar model quoted at least 5 similar items to IITs, NITs, IISERs, CSIR Labs or other Govt. R&D organizations in the last 10 years worldwide, PO copies or installation certificates along with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.

Point No	Parameter	Old Specification	Revised Specification
2	Flux density of the source	For Cu micorfocus source, the x-ray source must provide a flux more than 400 million ph/s at the sample in high flux setting. The supplier should be able to certify	For Cu micorfocus source, the x-ray source must provide a flux more than 400 million ph/s at the sample. The supplier should be able to certify these numbers and provide

		these numbers and provide the certification in the technical bid.	the certification in the technical bid.
3	X-ray optics	Any suitable optics such as Graded multilayer optics for collimating the X-ray beam to get a highly intense, adequately monochromatized flux at the sample with sufficiently suppressing K- beta component. The flux of K-beta in the monochromatic beam must be less than 0.02%. The collimating optics preferably should have 3 or more scatterless slits for eliminating the parasitic scattering in the x-ray beam.	Any suitable optics such as Graded multilayer optics for collimating the X-ray beam to get a highly intense, adequately monochromatized flux at the sample with sufficiently suppressing K- beta component. The collimating optics preferably should have 2 or more scatterless slits/blades for eliminating the parasitic scattering in the x-ray beam.
5	Sample Environment	III) Before Amendment: A shear stage capable of applying controlled shear (steady or oscillatory) in the temperature ranging from ambient to 300°C or above that is compatible with SAXS, WAXS measurements	A shear stage capable of applying controlled shear (steady or oscillatory) in the temperature ranging from ambient to 180°C or higher that is compatible with SAXS, WAXS measurements
6	Detector	I) Single photon counting two-dimensional (2D) pixel detector with an active detection area of 5600 square mm or larger. The pixel size of the detector must be 100 x 100 square micrometer or smaller. The detector should be capable of measuring in a large Q-range starting from 0.01 nm inverse or lower upto 49 nm inverse or higher with a delta-q of 0.004 nm inverse. The point spread function of the detector must be equal to the physical size of the pixel. The detector shall not have any defective pixels and it should be certified by the company in the technical bid and must be demonstrated during the installation. The detector system must be air cooled and maintenance free.	Single photon counting two-dimensional (2D) pixel detector with an active detection area of 6000 square mm or larger. The pixel size of the detector must be 100 x 100 square micrometer or smaller. The detector should be capable of measuring in a large Q-range starting from 0.008 nm inverse or lower up to 49 nm inverse or higher with a delta-q of 0.004 nm inverse. The point spread function of the detector must be equal to the physical size of the pixel. The detector shall not have any defective pixels and it should be certified by the company in the technical bid and must be demonstrated during the installation. The detector system must be air or water cooled and maintenance free.
		II) An additional two-dimensional pixel detector with an active detection area of 1200 square mm or larger should be provided for	An additional two-dimensional pixel detector with an active detection area of 2500 square mm or larger should be provided for WAXS

		<p>WAXS measurements. The pixel size of the detector must be 100 x 100 square micrometer or smaller. It should be capable of collecting scattering data for scattering angle, $2\theta = 75^\circ$ or higher.</p>	<p>measurements. The pixel size of the detector must be 100 x 100 square micrometer or smaller. It should be capable of collecting scattering data for scattering angle, $2\theta = 75^\circ$ or higher. A moving WAXS detector capable of scanning a larger section of the reciprocal space is preferred.</p>
8	<p>Grazing-incidence small angle x-ray scattering (GISAXS)</p>	<p>GISAXS module: Sample stage to perform GISAXS measurements with XYZ translation movement precision accuracy of +/- 1 um and angular positioning accuracy of +/- 0.001° should be offered. Omega stage, on top of Z stage (rotation around X) Ω: from -3° up to +5°, precision= 1e-4° or better.</p>	<p>GISAXS module: Sample stage to perform GISAXS measurements with XZ translation movement precision accuracy of +/- 1 um or better (X-ray beam is along Y direction). The possibility of rotation of the sample along RY (sample horizon alignment), RX (omega for incident angle), RZ (phi axis) should be provided. Angular positioning accuracy of the rotations should be +/- 0.002° or lower. Omega stage, Ω: from -3° up to +5°.</p>