

National Institute of Technology-Tiruchirappalli
Department of Chemistry

04.01.2013

Tender Notification No.: NITT/F-NO:002/PLAN/2012-13/CHY

Dated: **24.12.2012**

Corrigendum to the Technical Specifications

Name of the component	: Single Crystal X-Ray Diffractometer
Quantity required	: 1
EMD Amount	: Rs. 5,00,000
Cost of the Tender Document	: Rs. 1500
Delivery	: 28 weeks from PO
Last Date of submission of Tender	: 28.01.2013 to 11.00 a.m.
Address for submission of Tender	:The Director, National Institute of Technology- Tiruchirappalli, Tiruchirappalli – 620015, Tamilnadu, India Kind ATTN to: Dr. A. Sreekanth/CHY
Date of opening of bid	: 28.01.2013 to 3.30 p.m.at NIT Store

**SECTION : 3 SCHEDULE OF REQUIREMENTS, SPECIFICATIONS AND ALLIED
DETAILS**

Name of the Component to be procured : **Single Crystal X-Ray Diffractometer**

Specification

S.No	Details of the Items	Specifications	Company Specification
1.	Diffractometer Source	<ol style="list-style-type: none"> 1. Single crystal X-ray diffractometer system with microfocus Mo Kα X-ray source /wavelength 2. High precision, fully automated goniometer/ Four Circle 3. Easy Alignment of the sample. 4. Video microscope for the alignments 5. High precision multilayer optics for highest X-ray brilliances at the sample crystal 	
2.	CMOS (Air cooled) /CCD Area Detector	<ol style="list-style-type: none"> 1. State of the Art CCD detector suitable for Mo Kα. High precision and high gain. 2. highest detection sensitivity, low noise and high resolution 3. Dedicated fast (1 Gb or better) Ethernet communication should be employed. 	
3.	Software	<ol style="list-style-type: none"> 1. Data collection software compatible with UNIX/XP/Windows 7 (64 bit OS) 2. Instrumental control for single crystal, twins, low temperature. The software should be able to perform complete data acquisition, scaling, space group determination, structure determination and final report generation for publication purpose. 	
4.	Spares	Supplier should confirm the availability of spares for next 10 years from the date of installation. During the warranty period the spares including the source and detector to be replaced free of cost.	

5.	Low Temperature Attachment for measurement of single crystals at LNT/ Low temperature arrangement with self generated Nitrogen cooling system for CMOS	<ol style="list-style-type: none"> 1. Liquid nitrogen Dewar with larger capacity and transfer lines for the low temperature attachment. 2. Cryo can for storing Liquid Nitrogen (25L): 4 nos or higher capacity 	
6.	Test crystal	One test crystals to be included in the basic system	
7.	Goniometer Head	15 (fifteen) Nos. of Goniometer head in the basic system	
8.	Warrantee	The single crystal X-ray diffractometer system including chiller and UPS quoted for it should be warranted for a period of 2 years from the date of installation	
9.	Qualification criteria	The data collected in the offered XRD system must be publishable as per the ACTA guideline	
10.	Pre-Installation requirement	Necessary pre-installation advice should be sent immediately after the placement of the order	
11.	Installation, commissioning and Application Training At the bidders expense	<ol style="list-style-type: none"> 1. Hands on training for personals at installation site 2. International Technical training for one person including Travel/Accommodation and other expenses 3. Complete structure determination/ solution training by experts 	
4.	Service facility in India	Supplier should clearly mention about their service set up in India for prompt service support along with number of service engineers specially trained on the offered system	
5.	External water chiller for the single crystal X-ray diffractometer System/ or Air Cooled system for CMOS	Suitable external water chiller with heavy-duty motor / pump / compressor / fan system all connected in 3-phase and safety protection devices for the offered single crystal X-ray diffractometer system should be quoted from reputed brand with detailed technical specification of manufacture. After sales service should be provided by the Vendor. Optionally offer imported water chiller	
6.	UPS for the single crystal X-ray	Suitable 3 – phase input, 3 – phase output on-line UPS with digital signal processor	

	diffractometer system	(DSP) control double conversion with IGBT with latest version and at least 20 KVA or more rating capacity with sealed maintenance free batteries, for supporting the XRD system and external water chiller with minimum 1 hour back up time with detailed technical specification from reputed brand manufactures . After sales service should be provided by the Vendor.	
7.	High end Branded DELL/HP/IBM computer installed with UNIX/Windows 7	With Laser Printer	
8.	Polarizing microscope with digital cameras (10 mpix)	<ol style="list-style-type: none"> 1. Microscope based on Common Main Objective (CMO) optics stain free design. 2. Zoom range 7.5x to 60x with 1.0x objective & 10x eyepiece. 3. Eight locking zoom levels. 4. Objective 1.0x & eyepiece 10x with field of view (FOV) 20. 5. Resolution of 308 lp/mm. 6. Transmitted light stand with pol. Attachments. 7. Additional objective 2.0x to get 120x magnification (optional). 8. Reflected/Incident LED illumination. 9. After sales service should be provided by the Vendor 10. Image grabbing card (optional) 	
9.	Contacts in India	Supplier should give a list of Recently supplied Similar instruments in India and their User name and addresses.	