Government eProcurement System

Government eProcurement System

Tender Details

Date : 27-Jun-2022 12:35 PM

Print

Basic Details			
Organisation Chain	Council of Scientific and Industrial Research||CSIO-Chandigarh - CSIR||Purchase-CSIO - CSIR		
Tender Reference Number	CSIO/3(5)2021-Pur		
Tender ID	2022_CSIR_120370_1		
Tender Type	Open Tender	**Form of contract**	EOI
Tender Category	Goods	**No. of Covers**	1
General Technical Evaluation Allowed	No	**ItemWise Technical Evaluation Allowed**	No
Payment Mode	Not Applicable	**Is Multi Currency Allowed For BOQ**	No
Is Multi Currency Allowed For Fee	No	**Allow Two Stage Bidding**	No

Cover Details, No. Of Covers - 1			
Cover No	**Cover**	**Document Type**	**Description**
1	Fee/PreQual/Technical/Finance	.pdf	Expression of Interest for procurement of Nanoimprint Lithography System details attached
		.xls	Link for online meeting

Tender Fee Details, [Total Fee in ₹ * - 0.00]			
Tender Fee in ₹	0.00		
Fee Payable To	Nil	**Fee Payable At**	Nil
Tender Fee Exemption Allowed	No		

EMD Fee Details			
EMD Amount in ₹	0.00	**EMD through BG/ST or EMD Exemption Allowed**	No
EMD Fee Type	fixed	**EMD Percentage**	NA
EMD Payable To	Nil	**EMD Payable At**	Nil

Click to view modification history

Work /Item(s)					
Title	CSIO/3(5)2021-Pur				
Work Description	Expression of Interest for procurement of Nanoimprint Lithography System details attached				
Pre Qualification Details	Please refer Tender documents.				
Independent External Monitor/Remarks	NA				
Show Tender Value in Public Domain	No				
Tender Value in ₹	0.00	**Product Category**	Laboratory and scientific equipment	**Sub category**	NA
Contract Type	Tender	**Bid Validity(Days)**	90	**Period Of Work (Days)**	45
Location	CSIR-CSIO Sector 30 Chandigarh	**Pincode**	160030	**Pre Bid Meeting Place**	Online
Pre Bid Meeting Address	link of meeting attached in BOQ	**Pre Bid Meeting Date**	13-Jul-2022 02:00 PM	**Bid Opening Place**	CSIR-CSIO
Should Allow NDA Tender	No	**Allow Preferential Bidder**	No		

Critical Dates

Publish Date	27-Jun-2022 01:00 PM	**Bid Opening Date**	15-Jul-2022 03:30 PM
Document Download / Sale Start Date	27-Jun-2022 01:00 PM	**Document Download / Sale End Date**	14-Jul-2022 03:00 PM
Clarification Start Date	27-Jun-2022 01:00 PM	**Clarification End Date**	11-Jul-2022 03:00 PM
Bid Submission Start Date	27-Jun-2022 01:00 PM	**Bid Submission End Date**	14-Jul-2022 03:00 PM

Tender Documents

NIT Document

S.No	Document Name	Description	Document Size (in KB)
1	Tendernotice_1.pdf	Expression of Interest for procurement of Nanoimprint Lithography System details attached	213.09

Work Item Documents

S.No	Document Type	Document Name	Description	Document Size (in KB)
1	BOQ	BOQ_131262.xls	Expression of Interest for procurement of Nanoimprint Lithography System	280.00

Auto Extension Corrigendum Properties for Tender

Iteration	No. of bids required for bid opening a tender	Tender gets extended to No. of days
1.	2	7

Bid Openers List

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	ramesh.eproc@csir.res.in	Ramesh Kumar	RAMESH KUMAR
2.	sunder.eproc@csir.res.in	Sunder Lal	SUNDER LAL
3.	jayantrao.eproc@csir.res.in	Jayant Mohan Rao	JAYANT MOHAN RAO
4.	anilyadav.eproc@csir.res.in	Anil Kumar Yadav	ANIL KUMAR YADAV

GeMARPTS Details

Reason for non availability of GeMARPTS ID	Urgent nature of Procurement
Remarks	Expression of Interest
Document Name	NanoimprintTPC.pdf
Document Size (in KB)	374.96

Tender Properties

Auto Tendering Process allowed	No	**Show Technical bid status**	Yes
Show Finance bid status	Yes	**Show Bids Details**	Yes
BoQ Comparative Chart model	Normal	BoQ Compartive chart decimal places	2
BoQ Comparative Chart Rank Type	L	Form Based BoQ	No

Tender Inviting Authority

Name	Controller ofStores and Purchase
Address	The Director CSIR-CSIO Sector 30 Chandigarh 160 030

Tender Creator Details

Created By	Ramesh Kumar
Designation	Assistant
Created Date	27-Jun-2022 12:08 PM

Expression of Interest (EoI) for procurement of Nanoimprint Lithography System

Documents to be submitted by the OEM or Authorized Representative of OEM:

1. Model number(s) of the instrument which meets the specifications (or very closely matches the specifications).
2. Brochures/Catalogues w.r.t point no.1.
3. Compliance sheet of the specifications mentioned in the EoI. The compliance sheet must be vetted by the OEM. If any of the specification is not complying, then mention the actual parameter value for the instrument Model mentioned in point no. 1.
4. Valid authorization letter from OEM.
5. Domestic user list of similar system with Model No.
6. Any other relevant point the OEM/ Authorized Representative of OEM wants to share or discuss.

Nanoimprint Lithography System Specifications

A. Substrate and Stamp		
1.	Substrate Size	8-inch diameter or larger; System should be able to handle substrates of smaller sizes of diameter 2”, 3”, 4”, 6”. Suitable substrate adapters and vacuum chucks should be provided.
2.	Substrate Thickness	(0.1mm) to (10mm or higher)
3.	Substrate material	System should support imprinting on following materials: Polymethylmethacrylate (PMMA), polycarbonate (PC), Fused Silica, Quartz, Optical Glasses (BK7 etc.), Silicon Wafers, Metals, Ge, ZnSe, Sapphire, GaAs
4.	Imprint materials	System should support following materials for imprinting: polymethylmethacrylate (PMMA), UV polymerizable resists, Thermoplastic polymers resists, Cyclo-olefin copolymer (COC), Cycloolefin polymer (COP), Carbor-based Polycarbonate (CPC), Sol-gel based materials, Optical glasses (Silica gel-based)
5.	Stamp Size	8-inch diameter or larger System should be able to handle stamps of smaller sizes of diameter 2”, 3”, 4”, 6”. Suitable vacuum chucks, holders for stamp should be provided.
6.	Stamp thickness	(0.1mm) to (5mm or higher)
7.	Stamp material	System should support following stamp materials: Silicon, quartz, nickel, polymethylmethacrylate (PMMA), polydimethylsiloxane (PDMS), cycloolefin copolymer (COC) and cycloolefin polymer (COP)
8.	Maximum imprinting area	System should be able to perform imprinting on area from 0.5” inch diameter to 8” inch diameter
B. Imprinting requirements		
9.	Imprinting forms supported	Thermal, UV, Hot embossing
10.	Resolution/feature size	The system should support fabrication of a wide range of feature sizes varying from: (30 nm or less) to (10 micrometer or higher)
11.	Type of loading & unloading of substrate and stamp	Manual
12.	Nano Imprinting process control	The process control in between the loading and unloading of the sample should be fully automated
13.	Nano imprinting operation	The system should support operation in following mediums: Air, inert gas and vacuum
14.	Step and Scan Imprinting	The system should have provision to perform step and scan imprint operation of small size stamp over 8-inch diameter.
C. Imprint parameters		
15.	Imprint pressure range	0 - 30 bar (or higher)

16.	Vacuum requirement	The system should support operation on vacuum of 1.5 mbar or less
17.	Temperature range for thermal imprinting	The system should support operating temperature ranging from: From ambient to 250^{o} C with +/- 2 °C accuracy
18.	Heating Rate for thermal imprinting	Programmable temperature ramp from 0.5 degrees to 3.3 °C/Sec
19.	Cooling Rate for thermal imprinting	Cooling ramp rate of at least 50 degree /min
D. UV Source Specifications		
20.	UV Source wavelength	Tunable Source with at least 365 nm, 395 nm and 405 nm wavelengths;
21.	UV Source Power	The average UV intensity should be 20 mW/cm^2 or higher. UV Intensity tunable over wide range
22.	UV Source Life	10,000 hours or higher
E. Vacuum Pump		
23.	Class 100 cleanroom compatible dry vacuum pump for substrate and stamp holding compatible with the quoted model.	
F. Process Technology requirements		
24.	Process Technology for master stamp replication (soft mold compatible)	System should allow the master stamp to be replicated into a soft and flexible polymer material, which is then used as a stamp when imprinting on the target substrate
G. Computer controlled user interface		
25.	Computer controlled user interface	A workstation (Dell or HP or equivalent) compatible with the nanolithography equipment and loaded with genuine Windows 64-Bit operating system and pre-installed software for operating the equipment. Please quote for a perpetual license or extended support for the software.
26.	Display	Complete logs of all the process and system parameters to be available and stored for future trouble shooting; Display tool for process parameters; Provision to alert the user in case of emergencies; Software for control and analysis of the imprint process, log files and equipment diagnostics needs to be supported for the lifetime of the tool
27.	Program features	Programmable temperature, Programmable pressure selection Programmable time settings Programmable UV Power selection
28.	Minimum number of process steps	The system should provide flexibility in operation to include a minimum of 20 process steps into a program to set the combinations of temperature, pressure, time, UV power or any other process parameter
H. Consumables & accessories		
29.	UV and Thermal imprint materials	To be provided with the instrument/system so as to demonstrate the functionality (especially resolution) of the system. These consumables will be retained by the institute.

30.	Stamp Consumables	At least 2 pieces of 8-inch diameter Quartz disks for stamp. Soft and flexible polymer material for fabricating soft stamp
31.	Other accessories	All necessary tubing for connecting the system should in included.

Acceptance Criteria:

General:

- Support of spares for minimum ten years.
- System should be clean room (Class 100) compatible.
- Manufacturer should have their service support/ office in India.
- There must be a provision for the remote control of the system for trouble shooting purposes.
- Should provide and quote all the necessary attachments for the system to be fully functional.
- All the technical specifications must be available for inspection in brochures/ catalogues/ application notes/ datasheets/ websites of Principal Manufacturer/OEM.

Warranty and service support:

- 12 months standard warranty from the date of installation/commissioning and final acceptance
- Vender/OEM should quote 02 yrs extended warranty + 02 yrs AMC for the system and sub-systems after the completion of standard warranty.
- The complete supply must be guaranteed for free repair / replacement and free software upgrades (wherever applicable) during the warranty period

Installation and commissioning:

- The supplier or the representative will do the installation and commissioning of the Nano imprint lithography unit as per above description at customer site and demonstrate the operation.
- After the successful installation, Supplier should provide complete free user training to at least 03 people.
- Training includes: Loading of substrate, alignment, setting up all parameters, unloading and recipe selection as per the workpiece and stamp material.
- Supplier will have to demonstrate the feature size; parameter ranges (temperature, pressure, UV light power) at customer site.
- At least one hard stamp and one soft test stamp with anti-sticking coating to demonstrate (i) UV-Nano imprint lithography, (ii) thermal nanoimprint lithography (iii) hot embossing. The stamp to demonstrate nanoimprint lithography must have a minimum feature size of 30 nm or less.
- Uniformity of imprinting over the 8” diameter with variation not more than +/- 5% should be demonstrated.
- Parameters setting, alignment and calibration using standard and nonstandard sample should be demonstrated during training.
- At least one standard recipe for each of the following should be pre-installed: (i) thermal nanoimprinting of a Polycarbonate (PC) using PDMS stamp, (ii) thermal nanoimprint on a resist, (iii) UV nanoimprint with a photoresist for use with hard stamps, (iv) UV nanoimprint with a photoresist for use with PDMS stamps (v) hot embossing.
- Users should be trained for operation, maintenance and servicing of the unit at customer site.
- Samples should be given as test samples for exposure during technical evaluation.
- Supplier should provide at least 10 samples for practice.
- Infrastructure/ utilities required for the installation should be intimated with the offer.

Documentation:

- All the documents and software for the system to be supplied in English language. A complete set of original manuals (soft and hard copies) including user manuals, maintenance manuals, troubleshooting tips, built assembly drawings, foundation layouts and manuals of all imported/purchased components, together with manuals of the system must be provided in English Language.

OEM/Supplier Criterion:

- Only reputed OEM/suppliers will be considered.
- At least one Nanoimprint Lithography System of the OEM should be installed in India for proven capability.
- A user list with the similar systems to be provided.
- Details /contact numbers, e-mail etc. of the place where the systems have been supplied and installed should be mentioned.