



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH  
PUNE

CLARIFICATION ON TENDER NUMBER - IISER-PUR-1044-20

ITEM DESCRIPTION- PROCUREMENT OF MONOCHROMATOR WITH EMCCD.

Refer IISER Pune open tender number IISER-PUR-1044-20 for procurement of Monochromator with EMCCD.

Pre-Bid meeting was held on December 09<sup>th</sup>, 2020 at 3.00 PM via video conferencing and minutes of meeting is as under.

At the outset, the Chairman welcomed all the Members and the representative of the Prospective Bidders and briefed in general the scope of the Project and thereafter requested Assistant Registrar (S&P) to brief the vendors on the salient features of the commercial terms and the indenting Officer to read out the clarification sought by the Prospective Bidders and replied thereto as detailed in Annexure -II

The representatives present were satisfied with the replies given and it was informed that the corrections / additions / clarifications given, as discussed during the Pre-Bid Conference would be hosted on the website of IISER Pune and all the Prospective Bidders are required to take cognizance of the proceedings of the Pre-Bid Conference before submitting their bids as stipulated in the Bidding Documents.

The other terms & conditions of the notice issued on our IISER website [www.iiserpune.ac .in](http://www.iiserpune.ac.in) will remain unchanged. No more correspondence in this regard will be entertained

The meeting ended with vote of thanks to the Chair

9.12.2020

Sd/-  
Assistant Registrar (S&P)



**IISER PUNE**  
**PRE-BID CONFERENCE FOR PROCUREMENT OF MONOCHROMATOR WITH EMCCD**

TECHNICAL & COMMERCIAL QUERIES AND CLARIFICATION

S.No	Query/Clarification Sought	Clarification / Amendment
	<b>Monochromator</b>	
1	Spectral Resolution : it is not mentioned with which grating and with which detector	<p>Gratings are too specific to each manufacturer(s)/vendor(s). So this time we want to specify only the Spectral Range and required Resolution on 0.07 nm at an wavelength of 532 nm.</p> <p>Vendors can choose to supply three suitable gratings to cover that Spectral Range from 240-2000 nm with the minimum specified resolution at 532 nm.</p>
2	Grating ruling and wavelength coverage is not mentioned	<p>Gratings are too specific to each manufacturer(s)/vendor(s). So this time we want to specify only the Spectral Range and required Resolution on 0.07 nm at an wavelength of 532 nm.</p> <p>Vendors can choose to supply three suitable gratings to cover that Spectral Range from 240-2000 nm with the minimum specified resolution at 532 nm.</p>

3	Silver coated mirrors are specified, this is useful only if the gratings are also silver coated, please clarify	Al+MgF2 coating are also Ok with us. Revised Specs will mention that only.
4	Exit slit mentions in the description about entrance slit, if there are to be detectors, exit doesn't require slits?	We removed Exit Slits and Shutters. Revised Spec mentions Two Exit Ports only.
5	<p><b>EMCCD</b></p> <p>The monochromator with silver coating has no response below 400nm (no UV response), the EMCCD needs to be UV optimised? If NIR response is required, no anti fringing is specified, fringing above 700nm is acceptable? Then why not a plain VIS optimised detector?</p>	<p>There won't be any additional specifications to avoid unnecessary confusions.</p> <p>Vendors should supply items following the required specifications only with Standard Grade One sensors having minimum possible Blemish.</p>
6	<p><b>Marking system</b></p> <p>If partial marks are awarded, it is impossible to bid on your tender, example : someone quoting a cheaper spectrometer attaining 0.05nm resolution also qualifies; someone quoting an uncoated EMCCD also qualifies, some one quoting two gratings instead of 3 gratings also qualifies and so on.....request to please take this genuine difficulty on board and help us with a transparent tender.</p>	<p>That's why, this time we wanted to avoid all such <b>subjective specifications, over-specification(s) as well as unnecessary specification(s) of secondary, inconsequential items to avoid repetition of such confusions.</b> That way there won't be any need for such partial markings. Full Compliance for each item(s) of the revised specifications can be in terms of clear cut Yes/No to avoid such partial markings.</p> <p><b>However, Vendors must provide adequate, clear-cut justifications for Full Compliance for each item(s).</b> If necessary, provide official guaranty to justify these claims, particularly in cases where there are "contradictions" with their online official information and/or data sheets. Any such discrepancy may lead to immediate disqualification and/or ZERO marks for that specification.</p>
7	Solvency certificate and purchase orders are specified, non-compliance is allowed or not.	Non-compliance will lead to rejection of technical bid

8	Chapter 4, Schedule of Requirement, Specification & Allied Technical Details page no 22	Chapter 4, Schedule of Requirement, Specification & Allied Technical Details page no 22 is amended as per Annexure III.

## Annexure III

<b>1) MONOCHROMATOR</b>	
Focal length 300 mm or more	5
Spectral Resolution with CCD: 0.07 nm or better at 532 nm	5
3 gratings (Preferably 600 g/mm, 1200 g/mm, $\geq 1800$ g/mm) covering Spectral Regions from 240-2000nm, Grating size (mm): 68 x 68	5
Equipped with Al+MgF <sub>2</sub> Coated Broad band Mirrors	5
No. of Input Slit: One motorized, software-controlled entrance Slit with Shutter.	5
No. of Exit ports: Two Exit ports	5
Range of All Slit widths: 10 $\mu$ m to 2.5 mm	5
Optical fiber of 2 or 3 meters, core size 200 or 400 micron, Both Visible & NIR range, Universal Fiber Coupler(s) & Compatible X-Y adjustable fiber adapter(s)	5
Interface port(s) with computer and External Triggering Options	5
Software: Latest software to be provided and same software should be able to control both the Spectrometer and EMCCD and InGaAs Detector.	5
<b>TOTAL MARKS for Monochromator</b>	<b>50</b>
<b>Technical Qualification Marks for Monochromator is &gt; 45 out of 50</b>	
<b>2) EMCCD</b>	
Vacuum Shielded Grade 1 Sensor: Back Illuminated, Vis-optimized with UV Coating	5
Active pixels: 1600 x 200 with Grade 1 Sensor	5
Pixel size: 16 x 16 $\mu$ m (or smaller)	5
Thermoelectric Cooling and related accessories included for -60°C	5
Peak Q.E: > 95%	5
Dark current, e-/pixel/sec @ -60°C: 0.01 or better	5
Read noise at < 1 e- rms in EM mode	5
Electron Multiplier gain: 1 - 1,000 times (software controlled)	5
Digitization: 16 bit	5
Software: Latest software to be provided and same software should be able to control both the Spectrometer and EMCCD.	5
<b>TOTAL MARKS for EMCCD</b>	<b>50</b>
<b>Minimum Technical Qualification Marks for EMCCD is &gt; 45 out of 50</b>	

<b>3) InGaAs Array Detector</b>	
Wavelength range: 800 nm - 1.7 μm	<b>10</b>
Array Size: Around 25 mm wide with around 1024x1 pixels	<b>10</b>
Pixel Size: 25 μm X 500 μm	<b>10</b>
Peak QE > 80% for 1.7 μm cut-off	<b>5</b>
Cooling and related accessories included for -75°C or lower	<b>5</b>
Interface port(s) with computer and External Triggering Options	<b>5</b>
Software: Latest software to be provided and same software should be able to control both the Spectrometer and InGaAs detector.	<b>5</b>
<b>TOTAL MARKS for InGaAs Array Detector</b>	<b>50</b>
<b>Minimum Technical Qualification Marks for InGaAs Array Detector is &gt; 45 out of 50</b>	
<b>ONE YEAR WARRANTY AFTER INSTALLATIONS FOR ALL 3 ITEMS</b>	
<b>* COMPLIANCE CHARTS for the above specifications of the Monochromator, EMCCD and InGaAs Array Detector must be provided.</b>	
<b>ITEM 2 &amp; 3 must be compatible with ITEM 1 using supplied software(s) for Synchronized Operation(s) from the same manufacturer</b>	