



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH
PUNE

CLARIFICATION ON TENDER NUMBER - IISER-PUR-1358-14

ITEM DESCRIPTION- PROCUREMENT OF LUMINESCENCE LIFETIME INSTRUMENT

Refer our Press Tender Notice No.IISER/S&P/11/14 dated 2.1.2015 for procurement of luminescence lifetime instrument. Tender Reference Number - IISER-PUR-1358-14.

Pre-Bid meeting was held on January 12th, 2015 at 12.00 noon 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

12.1.2015

Sd/-
Assistant Registrar (S&P)



IISER PUNE

PRE-BID CONFERENCE FOR PROCUREMENT OF LUMINESCENCE LIFETIME INSTRUMENT

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER - IISER-PUR-1358-14

DATE : 12.1.2015

S.No	Query/Clarification Sought	Clarification / Amendment
1	<p>Chapter 4, Page No - 23, Lifetime range</p> <p>Clarification regarding "modifying the lifetime range to 5 ps to 50 microseconds"</p>	<p>Tender Specification prevails and only instrument with lifetime range from ps to second(25 ps to 1 second) capability will be accepted.</p> <p>We will be working with a wide variety of samples exhibiting both fluorescence and phosphoresce. Hence, we prefer to have a wider range of lifetime going up to 1 second or higher.</p> <p>Tender specification prevails.</p>
2.	<p>Chapter 4, Page No - 23, Point 1c, Repetition Rate</p> <p>Clarification regarding " (i) modifying the repetition rate and (ii) application requiring the operation up to 100 MHz</p>	<p>Chapter 4, Page No - 23, Point 1c, Excitation Source Section is revised to read as:</p> <p>1. Excitation Source:</p>

	<p>repetition rate of the excitation sources”</p>	<p>1c. The repetition rate should be in the range 10 kHz- 80 MHz or higher for laser heads of different wavelengths ranging from 250 - 850 nm. We prefer an instrument with excitation repetition rate as high as possible. The instrument electronics should match with the repetition rate of the excitation sources.</p> <p>Specification revised.</p> <p><u>Requirement for high repetition rate sources:</u> High repetition rate excitation sources are required for the faster acquisition of data for performing fast kinetic studies. For e.g. we will be performing the electrostatic titration studies between nanoparticles and chromophores. Here, we would like to understand the effect of chromophore interaction on the luminescence properties of nanoparticles as a function of time. Similarly, we will be studying the effect of self-assembly between luminescent nanoparticles on their luminescent properties. In the above mentioned examples, we prefer to collect as many data as possible within a given time to get a better understanding on the fast kinetic processes. Thus, high repetition sources will provide us an opportunity to capture faster kinetic processes occurring in our system. Moreover, faster data acquisition time is highly important when working with nanohybrid systems, as prolonged exposure to laser will result in irreversible sample decomposition (same for other photodegradable samples). Thus, The instrument should have all the electronics to match the excitation source repetition rate. For e.g. in order to use a 100 MHz source, the dead time of the instrument should be lower than 10 ns to match the excitation pulses produced. For all the above mentioned reasons we prefer an instrument that can provide as high repetition rate as possible.</p>
3	<p>Chapter 4, Page No - 23, Point 1d, Excitation source section</p> <p>Clarification regarding “Automatic setting of repetition</p>	<p>Tender Specification prevails and only instrument with software controlled laser diodes for automatic setting of repetition rate capability will be accepted.</p> <p>We prefer laser diode excitation sources that can be software</p>

	rate "	controlled for automatic setting of repetition rate. This facility is highly desirable as user can save time in optimizing the repetition rate. More importantly, it will prevent the users from collecting false data like decays due to re-excitation of the sample. Tender specification prevails.
4	Chapter 4, Page No - 23, Point 2a, Detector section Clarification regarding "changing the detector IRF value to 300 ps or less"	Chapter 4, Page No - 23, Point 2a, "Detector instrument response time" is revised to read as: 2. Detector: 2a: Peltier cooled Photomultiplier Tube (PMT) detector having Instrument Response Factor (IRF) of 300 ps or less Specification revised.
5	Chapter 4, Page No - 23, Point 2d, Detector section Clarification regarding "Need for discriminator in the same housing as PMT "	Tender Specification prevails and only instrument with discriminator located in same housing as PMT will be accepted. We prefer the discriminator in the same housing as the PMT for optimum noise immunity. Additional cables between the PMT and discriminator can increase the time of measurement as well as increase the noise signal. Tender specification prevails.
6	Chapter 4, Page No - 23, Point 2e, Detector Section Clarification regarding "time for lifetime measurements "	Yes, the lifetime measurement time is the response time of the model that has to be offered. We prefer lifetimes to be measured in as short a period as about one millisecond or lower for studying the fast kinetic processes.
7	Chapter 4, Page No - 23, Point 4c, Sample Chamber Section Clarification regarding "changing the four position sample turret to three position "	Chapter 4, Page No - 23, Point 4c, Sample Chamber Section is revised to read as: 4. Sample chamber: 4c: Must have option to upgrade to three or more position sample turret with temperature sensor and independently controllable magnetic stirring in each position. Specification revised.

8	<p>Chapter 4, Page No - 23, Point 5a, Electronics section Clarification regarding “multichannel scaling mode for phosphorescence decay measurement “</p>	<p>Tender Specification prevails and only instrument with multichannel scaling (MCS) mode for phosphorescence decay measurement will be accepted. We will be working with phosphorescent samples on a routine basis and we prefer an instrument that has all the electronics required to measure phosphorescence lifetimes too.</p> <p>Tender specification prevails.</p>
9	<p>Chapter 4, Page No - 23, Point 5b, Electronics section Clarification regarding “LED sources for phosphorescence lifetime measurement“</p>	<p>Tender Specification prevails and only suppliers offering LED light sources as accessories to measure phosphorescence decay will be accepted. We will be working with phosphorescent samples on a routine basis. We prefer the suppliers to offer LED light sources as accessories to measure phosphorescence lifetimes.</p> <p>Tender specification prevails.</p>
10	<p>Chapter 4, Page No - 24, Point 6a, Data acquisition section</p> <p>Clarification regarding “lifetime measurement range and timing module deadtime“</p>	<p>Chapter 4, Page No - 24, Point 6a, “Data acquisition section” is revised to read as: 6. Data acquisition unit for TCSPC module 6a. Single timing module to cover picosecond to seconds time range. Timing module deadtime around 12.5 ns or lower to match 80 MHz or higher repetition rate, respectively. It is mandatory that the deadtime of the instrument should match with the repetition rate of the excitation sources. Specification revised. <u>Requirement of wider lifetime range and lower deadtime:</u></p> <p>We will be working with a wide variety of samples exhibiting both fluorescence and phosphorescence. Hence, we prefer to have a wider range of lifetime going up to 1 s. The instrument should have all the electronics required to measure the lifetime in the range of 25 ps to 1 s. We need the instrument timing module deadtime to be 12.5 ns or lower to match the excitation sources of 80 MHz or higher repetition rate, respectively. For e.g., the instrument should be able to detect the adjacent pulses from a 80 MHz repetition rate source, where the second pulse will come in 12.5 ns. It is</p>

		mandatory that the dead time of the instrument should match with the repetition rate of the excitation sources.
11	<p>Chapter 4, Page No - 24, Point 6b, Data acquisition section</p> <p>Clarification regarding "Integral driver for phosphorescence"</p>	<p>Tender Specification prevails and only instruments with Integral driver for phosphorescence will be accepted. Explanation already given in above points 8 and 9.</p> <p>Tender specification prevails.</p>
12	<p>Chapter 4, Page No - 24, Point 8a, Optional accessories section</p> <p>Clarification regarding "excitation sources"</p>	<p>Chapter 4, Page No - 24, Point 8a, Optional accessories section is revised to read as:</p> <p>8. Optional accessories 8a. The manufacturer should supply excitation sources in the wavelength of around 375 nm, 405 nm, 440 nm, 510 nm and 635 nm capable of operating in the range 10 kHz - 80 MHz or higher repetition rate. We prefer an instrument with excitation repetition rate as high as possible.</p> <p>Specification revised.</p>



IISER PUNE

PRE-BID CONFERENCE FOR PROCUREMENT OF LUMINESCENCE LIFETIME INSTRUMENT**COMMERCIAL QUERIES AND CLARIFICATION**

TENDER NUMBER - IISER-PUR-1358-14

DATE : 12.1.2015

S.No	Query/Clarification Sought	Clarification / Amendment
	-----NIL-----	-----NIL-----