



INDIAN INSTITUTE OF SCIENCE EDUCATION AND RESEARCH

TIRUPATI

ADDENDUM ON TENDER NUMBER - IISERT-PUR-0058-16

ITEM DESCRIPTION- ISOTHERMAL TITRATION CALORIMETRY

Please refer our Press Tender Notice No.IISER/S&P/09/16 dated 7.10.2016 for procurement of Isothermal Titration Calorimetry. In this regard refer Pre-Bid Conference held on October 20, 2016

All the Prospective Bidders are required to take cognizance of the addendum (given below) before submitting their bids.

Please note that there is no change in last date and time for submission of bid documents. The last date remains same i.e November 09, 2016 , Time – 3.00 pm

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

07.11.2016

Sd/-
Assistant Registrar (S&P)

IISER TIRUPATI

ADDENDUM ON PRE-BID CONFERENCE CLARIFICATION FOR PROCUREMENT OF ISOTHERMAL TITRATION CALORIMETRY

TECHNICAL QUERIES AND CLARIFICATION

TENDER NUMBER – IISERT-PUR-0058-16

DATE : 07.11.16

S.No	Query/Clarification Sought	Clarification / Amendment
01	<p><u>Sl. No. 03 Page No – 22 , Chapter 4 , point no 7</u></p> <p>Tender specifications: The instrument must have a high-sensitivity cell made of compatible material like Hastelloy or Gold (Au0) to allow for the widest range of reagent chemistry, easy cleaning and facilities efficient stirring of the solution. Vendors to specify the working detail about the resistivity of the constituent material to various possible samples. Cell material should be very high chemical resistance to extremes of pH and solvents.</p> <p>Amended specifications: The instrument must have a high-sensitivity cell made of Hastelloy to allow for the widest range of reagent chemistry, easy cleaning and facilities efficient stirring of the solution. Cell material should have very high chemical resistance and should tolerate extremes of pH and solvents. Also, the cell should not react with S-containing groups or strong reducing agents.</p> <p>Clarification requested by one of the bidders: The Nano ITC LV has sample and reference cells composed of 99.999% Gold (0). The cells are highly inert Au(0) that ensures samples will not bind non-specifically to the cell walls while providing a higher heat conductivity of any other metal (especially Hastelloy) used in ITC instruments. All materials used in the Nano ITC are resistant to extreme pH (2-12) conditions, organic solvents, acids, bases, and typical laboratory cleaning agents such as Contrad 70 or 90. In terms of Cell material Pre-Bid committee said both the cell materials are ok. Our cell geometry is Gold and we have this because of it is highly conductive and it is non-reactive</p>	<p><i>The instrument must have a high-sensitivity cell made of compatible material like Hastelloy or Gold (Au0) to allow for the widest range of reagent.</i></p>

	<p>including thiols. Now other vendor is trying to put only Hastelloy is acceptable. Whereas they were matching the specifications before and now which is making us to technically not acceptable in the tender tomorrow during the evaluation process.</p>	
<p>02</p>	<p><u>Sl. No. 05 Page No – 23 , Chapter 4 , point no 17</u></p> <p>Tender specifications: Should have user definable mixing speed. Suggestion by one of the bidders “We request that the specification should mention the desired speed range.”</p> <p>Amended specifications: For the current and future applications of the instrument, stirring speeds of minimum up to 1000 rpm is required.</p> <p>Clarification requested by one of the bidders: The cylindrical cells in the Nano ITC were designed and tested for stirring efficiency and the elimination of dead zones and entrapped air bubbles. The stirring rate for the stirring paddle is typically in the 250-350 rpm range, minimizing potential shear damage to sensitive proteins. A coin-shaped cell requires a much higher stir rate (750-1000 rpm) to achieve the same stirring efficiency. Many structurally sensitive proteins have been shown to aggregate and precipitate out of solution at these higher stir speeds. In terms of RPM as you said both the Cylindrical and Coin cell are Ok with you during the Pre-Bid meeting. Please appreciate that because of the cell design of the coin shape which has more volume and it requires more RPM for mixing, but in the cylindrical cell even with the 400 RPM and we can show the applications done with the 400 RPM. The RPM has to do only with the geometry of the cell.</p>	<p><i>For most of the intended use of the instrument in terms of drug and protein interactions (also peptide nanostructures/ligand interactions and so forth), higher stirring rates are crucial. Higher stirring rates (of up to 1000 rpm) ensure homogenous mixing in the cell with more reproducible data. As far as protein denaturation due to stirring is concerned, most of the proteins and all of the peptide nanostructures intended to be used in the instrument show remarkable stability to vigorous stirring and withstand even short periods of sonication. In addition, the modified proteins and unnatural peptides under investigation are prone to form self-assembled nanostructures as well as organo and hydrogels; therefore we required higher rpm stirring for proper mixing. We also intended to explore ITC to understand the interactions of analytes with the gel forming proteins and peptides for biomedical applications. To ensure proper mixing of modified proteins and peptides to understand their interactions with analytes and ligands, stirring rates of up to 1000 rpm is required.</i></p>



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ADDENDUM ON PRE-BID CONFERENCE CLARIFICATION FOR PROCUREMENT OF ISOTHERMAL TITRATION CALORIMETRY

COMMERCIAL QUERIES AND CLARIFICATION

TENDER NUMBER – IISERT-PUR-0058-16

DATE : 07.11.16

S.No	Query/Clarification Sought	Clarification / Amendment
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