

**ENTREPRENEURSHIP DEVELOPMENT CENTER**
**Clarification on Tender Number- EDC/NIT/2019/007**
**Item Description – Procurement of Fourier Transformation Infrared Spectrometer**

A press tender notice was issued on 8<sup>th</sup> November 2019 for the procurement of Fourier Transformation Infrared Spectrometer under two-bid system.

A pre-bid meeting was held on 19<sup>th</sup> November 2019 at 2:00 pm and the minutes of the meeting is as under:

- 1) Prebid meeting was attended by representatives from Anatek Instrument- distributors for JASCO Instruments, Thermo Fisher Scientific, Bruker India, Toshvin Analyticals - distributor for Shimadzu & Perkin Elmer India.
- 2) Prior & during the meeting written queries were received from the representatives. Our replies to the same are as summarized below:

Specification Ref.	Query	Our reply:
Sr. No. 5	Kindly make it $\geq 55,000$	Will be amended from $>55,000$ to $\geq 55,000$ Please refer to point 5 of the Minutes below. Visit our website <a href="http://www.venturecenter.co.in">www.venturecenter.co.in</a> to see the amendment document.
Sr. No. 2	Spectral Resolution: 0.1 cm <sup>-1</sup> or better.	No amendment
Sr. No. 10	Optionally ZnSe desiccant can be quoted: Remove this as ZnSe desiccant not available in market	Will be amended from "Standard system should be sealed and desiccated with KBr desiccant. Optionally ZnSe desiccant can be quoted" to "Standard system should be sealed and desiccated with appropriate hygroscopic

		<p>material preferably KBr to ensure system is moisture free.”</p> <p>Please refer to point 7 of the minutes below</p> <p>Visit our website <a href="http://www.venturecenter.co.in">www.venturecenter.co.in</a> to see the amendment document.</p>
Sr. No. 6	<p>Dynamically Aligned interferometer means continuous alignment. Such interferometer design is immune to get misaligned easily with external vibrations, shear or stress. We suggest strongly that it must be permanently aligned to have trouble free operations. Further, scanning mechanism of interferometer must have warranty for the period of 10 years.</p>	<p>Will be amended from "Interferometer: Should be dynamically aligned advanced type Michelson interferometer" to Interferometer should be either dynamically aligned or permanently aligned.</p> <p>Please refer to point 6 in the Minutes below.</p> <p>Visit our website <a href="http://www.venturecenter.co.in">www.venturecenter.co.in</a> to see the amendment document.</p>
Sr. No. 8	<p>MCT detector comes in various version. For low protein concentration measurement, Photovoltaic MCT must be used for better sensitivity. Please mention the same. Spectral range : 12500-850cm<sup>-1</sup> with 8 hours of hold time of liquid nitrogen.</p>	<p>Will be amended from "Detector: standard DLaTGS detector and a highly sensitive MCT detector for measurements of low concentration of protein samples. Appropriate liquid nitrogen dewar should be included " to "Detector: standard DLaTGS detector and a highly sensitive MCT detector Appropriate liquid nitrogen dewar should be included."</p>

		<p>Please refer to point 9 of the Minutes below</p> <p>Visit our website <a href="http://www.venturecenter.co.in">www.venturecenter.co.in</a> to see the amendment document.</p>
Sr. No. 10	ZnSe and KBr are optical materials used as windows and bam splitter. Desiccant are molecular sieves. Hence please change wording from KBr/ZnSe desiccant to Optics.	<p>Will be amended from "Standard system should be sealed and desiccated with KBr desiccant. Optionally ZnSe desiccant can be quoted" to "Standard system should be sealed and desiccated with appropriate hygroscopic material preferably KBr to ensure system is moisture free."</p> <p>Please refer to point 7 in the Minutes below.</p> <p>Visit our website <a href="http://www.venturecenter.co.in">www.venturecenter.co.in</a> to see the amendment document.</p>
Sr. No. 11	We have discussed during our meeting that 6-8 $\mu\text{m}$ is available with sealed CaF2 cell version only. For this, we offer Aquaspec cell. Commercially available cell can go as below as 15 $\mu\text{m}$ . They are of demountable type and it uses spacers. Once spacers gets damage, you can no longer get reproducible results. It is very difficult to maintain such a low pathlength with demountable liquid cell having screw. See attached photo. In such type of cell, pathlength varies on applying pressure to tighten the cell. Variation in the pathlength causes peak broadening and also peak heights resulting in wrong measurement in terms of quantification studies. It is a must that only fixed pathlength cell must be used and hence must	No amendment

	be mentioned in the tender specs.	
Sr. No. 13 & 14	21 CFR compliance and documentation is required only for pharmaceutical manufacturers who are exporting their goods to USA and Europe and follow the USFDA guidelines. For your type of Educational and Research Institute such compliance is not required and neither asked. This involves strict procedures to be followed and to work under control guidelines. It also involves various approval procedures on hierarchical levels including records stored and locked using Electronic signatures. Every stage of data manipulation, evaluation needs electronic approval by Manager level. Please review this point very seriously as we know that these challenges are very tough to be handled at your Institute level. Note once SW loaded under 21CFR environment, files cannot be deleted, altered or modified. We strongly recommend to please remove the same	<b>Ours will be a GLP compliant lab and hence the requirement for 21CFR compliance and IQOQPQ documentation is essential for us.</b>
Sr. No. 15	Do you need demountable or fixed type? If it is fixed type please mention pathlength.	<b>Kindly quote suitable cells available with you'll.</b>
Software and Database	Please add “ Quantitative analysis software using a full spectrum multivariate analysis (PLS)method for setting up models. Provides a wide range of pre-processing and validation options and offers an automatic routine for the optimization of calibration methods”.	<b>No amendment</b>
Computers and Accessories	Please mention Type of laser printer Please mention external HDD capacity Or you mention compatible PC and printer with Windows 10 software	<b>Type of laser printer: Print speed colour: Up to 30 ppm Duty cycle: (Maximum monthly recommended prints: Up to 8000 pages Print technology: Laser Print quality colour(best): up to 600 x 600 dpi Auto duplex printing Connection: Network</b>

		connected /usb, scan and copy ready.  External HDD capacity: minimum 2TB
Sr. No. 11	6-8 micron pathlength cell available for protein analysis. But no thermostating option available (temp control option not available)	No amendment
Sr. No. 15	ZnSe ATR with temperature control option available. Not with diamond	No amendment

**3) Clause 3.10.1 is amended as follows:**

**Existing Nomenclature:** The items covered by the schedule shall carry minimum five years of comprehensive warranty from the date of acceptance of the equipment by EDC.

**Amended Nomenclature:** The items covered by the schedule shall carry two years of comprehensive warranty from the date of acceptance of the equipment by EDC and Annual Maintenance Contract in years 3,4 & 5.

**4) Clause 3.11.2 is amended as follows;**

**Existing Nomenclature:** One week advanced training for two users nominated by EDC on operation, method development, maintenance, software, data interpretation(qualitative and quantitative, unknown identification), etc. at the manufacturer's international application laboratory

**Amended Nomenclature:** One week advanced training for two users nominated by EDC on operation, method development, maintenance, software, data interpretation(qualitative and quantitative, unknown identification), etc. at the manufacturer's application laboratory in India.

**5) Sr. No. 5 of Chapter 4 is amended as follows;**

**Existing Nomenclature:** Signal to Noise ratio: > 55,000:1 at 4 cm<sup>-1</sup>

**Amended Nomenclature:** Signal to Noise ratio: ≥ 55,000:1 at 4 cm<sup>-1</sup>

**6) Sr. No. 6 of Chapter 4 is amended as follows;**

**Existing Nomenclature:** Interferometer: Should be dynamically aligned advanced type Michelson interferometer.

**Amended Nomenclature:** Interferometer should be either dynamically aligned or permanently aligned.

**7) Sr. No. 10 of Chapter 4 is amended as follows;**

**Existing Nomenclature:** Standard system should be sealed and desiccated with KBr desiccant. Optionally ZnSe desiccant can be quoted.

**Amended Nomenclature:** Standard system should be sealed and desiccated with appropriate hygroscopic material preferably KBr to ensure system is moisture free.

**8) Software and Database in Chapter 4 is amended as follows;**

**Existing Nomenclature:** Latest compatible software (not from open access) are required with future upgradation to support mentioned applications, operation, calibration and maintenance of equipment. It should include protein analysis software, protein secondary structure estimation and relevant calibration software for protein concentrations.

**Amended Nomenclature:** Latest compatible software (not from open access) are required with future upgradation to support mentioned applications, operation, calibration and maintenance of equipment. It should include protein analysis software, protein secondary structure estimation and relevant calibration software for protein concentrations. Software should also have provision for automated atmospheric CO<sub>2</sub>/H<sub>2</sub>O suppression, and spectral processing.

**9) Sr. No. 8 of Chapter 4 is amended as follows;**

**Existing Nomenclature:** Detector: standard DLaTGS detector and a highly sensitive MCT detector for measurements of low concentration of protein samples. Appropriate liquid nitrogen dewar should be included.

**Amended Nomenclature:** : Detector: standard DLaTGS detector and a highly sensitive MCT detector Appropriate liquid nitrogen dewar should be included.

**Kindly refer to the Amendment Document on our website: [www.venturecenter.co.in](http://www.venturecenter.co.in) for more details.**

10) In general the bidders expressed their satisfaction about the details and Specifications given in the bid document.

The terms and conditions of the notice issued on our EDC website [www.venturecenter.co.in](http://www.venturecenter.co.in) will remain unchanged.