

IISER/PUR/1850/RK/SC/25-26

29 Jan 2026

**CORRIGENDUM**

**Sub:** Supply, installation and commissioning of Raman Spectrometer : reg

**Ref:** Tender ID: 2026\_IISRT\_894322\_1

1. The changes in the technical specifications are added as corrigendum to the above mentioned tender. The changes are placed at Annexure 1.
2. All other Terms and Conditions remain the same. Bidders may quote accordingly

Thanking You,

Yours Faithfully

*Amma Sathish*  
29/1/26

Assistant Registrar (P&S)



Annexure 1 to corrigendum

Sr. NO	Feature	Original Specification	Revised Specification
1.	Spectrometer	<p>Spectral Range: <math>\sim 100 \text{ cm}^{-1}</math> - <math>4000 \text{ cm}^{-1}</math> or better range for 532 nm laser  <math>\sim 100 \text{ cm}^{-1}</math> - <math>3000 \text{ cm}^{-1}</math> for 785 nm laser or better range</p> <ul style="list-style-type: none"> <li>Spectrometer with high (<math>&gt;60\%</math> transmission)</li> </ul> <p>Motorised Grating Stage with TWO gratings of choice between 300 gr/mm, 600 gr/mm, 1800 / 2400 gr/mm should be optimized as per excitation wavelength.</p> <p>Cut-off Filters for 532 nm laser to suppress Rayleigh background down to <math>\leq 80 \text{ cm}^{-1}</math></p> <p>Cut-off Filters for 785 nm laser to suppress Rayleigh background down to <math>\leq 65 \text{ cm}^{-1}</math></p> <p>Spatial Resolution: Diffraction-limited spatial resolution of 300 nm or better in lateral and 950 nm or better in axial with a 532 nm laser with a suitable grating using 100x objectives.</p>	<p>Spectral Range: <math>\sim 50 \text{ cm}^{-1}</math> - <math>4000 \text{ cm}^{-1}</math> or better range for 532 nm laser  <math>100 \text{ cm}^{-1}</math> - <math>3000 \text{ cm}^{-1}</math> for 785 nm laser or better range</p> <ul style="list-style-type: none"> <li>Spectrometer with high transmission</li> </ul> <p>Gratings: Gratings were changed and added separately in Section 5.</p> <p>Cut-off Filters for 532 nm laser to suppress Rayleigh background down to <math>\leq 50 \text{ cm}^{-1}</math></p> <p>Cut-off Filters for 785 nm laser to suppress Rayleigh background down to <math>\leq 100 \text{ cm}^{-1}</math></p> <p>Spatial Resolution: Diffraction-limited spatial resolution of 300 nm or better in lateral and 1.5 <math>\mu\text{m}</math> or better in axial with a 532 nm laser with a suitable grating using 100x objectives.</p>
2.	Laser sources	<p>Raman edge filters allowing measurements down to <math>50 \text{ cm}^{-1}</math></p> <p>Coupling to the Spectrometer: direct laser coupling to the spectrometer or using highly efficient single-mode optical fiber (cable)</p> <p>PL measurements: PL measurements must be enabled from 785 nm up to the CCD limit</p>	<ul style="list-style-type: none"> <li>"Raman edge filters allowing measurements down to <math>50 \text{ cm}^{-1}</math>" is omitted.</li> </ul> <p>Coupling to the Spectrometer: direct laser coupling to the spectrometer without any optical fiber (cable)</p> <p>PL measurements: PL measurements must be enabled up to the CCD limit</p>
3.	CCD detectors	<p>Detector: Front-illuminated (FI) or back-illuminated (BI), a minimum of <math>1650 \times 200</math> pixels or <math>1024 \times 256</math> or better</p> <p>Peltier cooling up to approximately <math>-50^\circ\text{C}</math> or better</p> <p>Quantum efficiency (QE) <math>\geq 55\%</math></p>	<p>Detector: Front-illuminated (FI), a minimum of <math>1650 \times 200</math> pixels or <math>1024 \times 256</math> or better</p> <p>Peltier cooling up to approximately <math>-70^\circ\text{C}</math> or better</p> <p>Peak quantum efficiency (QE) <math>\geq 45\%</math></p>
4.	Gratings	<ul style="list-style-type: none"> <li>830, 1200, 1800, 3000, 3600 grooves/mm</li> <li>At least two gratings must be motorised and user-swappable</li> </ul>	<ul style="list-style-type: none"> <li>Any three gratings out of 600, 1800, 2400 or 3000 grooves/mm that are fully automated and computer-controlled, to guarantee both low and high spectral resolution capabilities and extended range.</li> <li>At least two gratings must be motorised for each laser and user-swappable</li> </ul>
5.	Confocal Microscope	<ul style="list-style-type: none"> <li>High-stability research-grade binocular microscope</li> </ul> <p>Objectives: standard 5x/10x, 50x LWD, 100x, 20x is optional</p> <ul style="list-style-type: none"> <li>Real-time dynamic autofocus</li> <li>Z-travel range should be 30 mm or more</li> <li>X-Y direction: 100 mm x 75 mm or bigger with a minimum step size of 50 nm.</li> <li>sample size <math>\sim 100 \text{ mm} \times 100 \text{ mm}</math> or higher</li> </ul>	<ul style="list-style-type: none"> <li>High-stability research-grade microscope</li> </ul> <p>Objectives: standard 10x, 50x LWD, 60x/63x (water-immersion, NA=1, bio-samples), 100x</p> <ul style="list-style-type: none"> <li>"Real-time dynamic autofocus" is omitted</li> <li>Z-travel range should be 25 mm or more</li> <li>X-Y direction: 75 mm x 75 mm or bigger with a minimum step size of 50 nm</li> <li>sample size <math>\sim 75 \text{ mm} \times 75 \text{ mm}</math> or higher</li> </ul>



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29/11/26

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		<ul style="list-style-type: none"> <li>High resolution fast mapping with spatial resolution <math>\leq 300</math> nm</li> </ul>	<ul style="list-style-type: none"> <li>"High resolution fast mapping with spatial resolution <math>\leq 300</math> nm" is omitted.</li> </ul>
7	Calibration	Inbuilt calibration lamp source for spectrometer calibration – It should allow injection of a calibration light source signal (typ. Ar/Hg) into the beam path of the microscope to enable automatic routine spectrometer calibration.	Inbuilt calibration lamp source for spectrometer calibration – It should allow injection of a calibration light source signal (typ. Ar/Hg or Ne) into the beam path of the microscope to enable automatic routine spectrometer calibration.
8.	General & Important	at least 5 installations in India within the last 3 years to the reputed central government institutions	at least 5 installations in India within the last 5 years to the reputed central government institutions
9.	Acceptance Criteria	CCD Detector (Visible): Range: 200–1050 nm or with high-quantum efficiency $\geq 55\%$	CCD Detector (Visible): Range: 200–1050 nm or with peak-quantum efficiency $\geq 45\%$

*Amritha Sadasath*  
29/11/26



