



Department of Electrical Engineering, Indian Institute of Technology, Delhi

Hauz Khas, New-Delhi -110016, India

NIQ no. IITD/EE/PLN03-BEEN

Due Date: **15.9.2012, 5 PM**

Notice inviting quotations for a Portable Raman System

Sealed quotations are invited for a Portable Raman System that can have a spectral range between 200 cm^{-1} and 2500 cm^{-1} and a spectral resolution of at least 3.5 cm^{-1} . The purchase will be made through a two part bidding process. Technical and Financial bids have to be made separately. Complete technical information should be provided along with the Technical bid. Please refer to the page on Terms and Conditions for details on how and when to submit the Technical and Financial bids.

Required Specifications for the Portable Raman System

1. The spectroscopic range should be between 200 cm^{-1} and 2500 cm^{-1} (Stokes shift).
2. The spectral resolution should be at least 3.5 cm^{-1} .
3. The laser employed for Raman excitation should have a wavelength of 785 nm.
4. The laser employed for the for Raman excitation should have a maximum power of 300 mW.
5. The laser employed for the for Raman excitation should be frequency-stabilized .
6. The laser employed for the for Raman excitation should have a linewidth less than 0.3 nm.
7. The dynamic range of the detector should be at least 25000:1.
8. The TE cooling temperature of the detector should be $-20 \text{ }^\circ\text{C}$ (for back illuminated CCDs) and $-55 \text{ }^\circ\text{C}$ (for front illuminated CCDs).
9. The Raman system should have an optical fiber Raman measurement probe.
10. The Raman system should be portable and it should weigh less than 10 Kgs.
11. The warranty for the spectrometer should be at least 1 year.

Asst. Prof. A. Dhawan
(Principal Investigator)

Terms and Conditions

1. Please submit the TECHNICAL and FINANCIAL bids in separate sealed envelopes. Mark the two envelopes clearly as "Technical Bid" and "Financial Bid" respectively. Both the sealed envelopes should be sent in a single sealed envelope, clearly marked as "Quotations for a Portable Raman System". The quote should reach the following address on or before **15.9.2012, 5 PM:**

Dr. A. Dhawan
Block II, Room 216,
IIT Delhi, Hauz Khas,
New Delhi, 110016, India

2. Please quote prices at FOB New Delhi, inclusive of all taxes and duties.
3. Quote should be in Indian Rupees for Indian agents, or in foreign currency, for foreign agents, and needs to be valid for at least three months.
4. Attach all the technical literature and a list of similar installations done in India.
5. If the quote is being submitted by a representative of the manufacturer, a valid agency-ship or dealership certificate authorizing the agent to quote to IIT Delhi on behalf of the manufacturers should be enclosed.
6. Complete set of manuals for the operation of the equipment should be given.
7. Clearly specify the installation requirements – such as space, power, frequency, environment etc.
8. If the item quoted is proprietary in nature, please enclose proprietary certificate from the principals stating, "Certified that _____ is a proprietary of M/s _____ and no other manufacturer makes this item."
9. Please attach a signed and stamped compliance chart for the specifications. The format of the compliance chart is attached to this document.
10. Please specify all of your terms and conditions clearly, including delivery period.
11. Preferred modes of payment for foreign agents are through letter of credit, or as payment on delivery. For Indian agents, typically payment is on delivery.
12. The Institute reserves the right to accept or reject any or all quotations without assigning any reasons thereof.

Asst. Prof. A. Dhawan
(Principal Investigator)

Compliance Chart

	Parameter	Requirement	Model Spec	Complies
1	Spectroscopic range	200 cm ⁻¹ to 2500 cm ⁻¹		
2	Wavelength of Laser	785 nm		
3	Laser Frequency Stabilization	Present		
4	Laser Power	Adjustable from 0 mW to at least 300 mW		
5	Laser Linewidth	< 0.3 nm		
6	Dynamic range	At least 25000:1		
7	Spectroscopic Resolution	3.5 cm ⁻¹		
8	Fiber optic probe	present		
9	Weight	Less than or equal to 10 Kgs.		
10	Minimum warranty	1 year		
11	TE Cooled Detector	-20 °C (for back illuminated CCDs) and -55 °C (for front illuminated CCDs)		