



**Tender Notification for the procurement of confocal micro – Raman laser ruby luminescence setup for high pressure measurements at a beamline of the Italian synchrotron centre, Elettra, Trieste**

Dear Sir/Madam,

Your quotation should clearly indicate the terms and conditions of the quotations, delivery, delivery schedule, entry tax, payment terms, warranty coverage etc. The quotation should be submitted in two parts: Part I (Technical bid) and part II (Commercial bid) and both should be submitted in a sealed envelope. Technical bid should be exactly same as commercial bid except that prices are not shown in the technical bid. Technical bid should have item wise compliance report of all specifications. The commercial bid should have pricing for the items quoted in the technical bid. Prices quoted should be inclusive of all taxes/ duties. The prices quoted should be inclusive of delivery of the items to the site and installation at site. The offer should be valid for a period of at least 60 days from the last date for submission of quotes. Your quotation duly signed and sent in sealed envelope should reach us at the following address by 12 February 2020.

Prof. D. D. Sarma  
Solid State and Structural Chemistry Unit  
Indian Institute of Science  
Bangalore 560 012, India  
Tel :+91-80-2293 2945, 23607576  
Email: [sarma.dd@gmail.com](mailto:sarma.dd@gmail.com), [sarma@iisc.ac.in](mailto:sarma@iisc.ac.in)

**Important:** The item will be installed at the Italian synchrotron centre Trieste, Italy and has to be delivered directly to C/o Dr. Bobby Joseph , Laboratorio Fisica Applicata/Esperimenti Turbolenza del Centro di, Fisica Teorica Abdus Salam, presso Edificio ES3 della Sincrotrone Trieste S.C.p.A. Strada Statale 14 - km 163,5 in AREA Science Park, 34149 Basovizza, Trieste ITALY

## Technical Specifications:

- Raman Spectral Range: 100 cm<sup>-1</sup> to 4000 cm<sup>-1</sup>
- Spectrometer should be compatible with wide range of laser wavelengths and possibility to work from 200 nm to 1200 nm.
- Spectral Resolution 1 cm<sup>-1</sup> or better, notch or edge filter with cut-off 100 cm<sup>-1</sup> or below
- Encoder feedback controlled motorized grating stages (supplied with three gratings 300g/mm, 1200 g/mm and 1800g/mm or 2400 g/mm) for different spectral ranges
- Detector – CCD array detector, thermoelectrically cooled to -90°C or better
- Detector should be able to work from 200 nm to 1200 nm with good quantum efficiency
- Motorized neutral density filters to offer different output power level (to select laser excitation from 100% to 0.1%)
- Microscope with extra/ultra-long working distance objective (20x, and/or 50x N.A 0.25 or better, Minimum working distance 25 mm, type plan Apochromat objective)
- Efficient manual X-Y positioning system for diamond anvil cell
- Manual z-positioning system for objective
- High resolution digital camera system for visualization and image storage for sample in white light.
- Laser -- Diode Laser – 532nm, 50mW/100mW, Air cooled or similar, Mirrors and mounts for laser system
- Data acquisition and instrumentation control software to be provided
- Software should support recording of PL spectra as well.
- Delivery, Installation and operator training is required
- Optional quote for performing PL experiments with the same set-up
  - (a) PL excitation source for doing only PL in the range of about 230 nm to 1100 nm; and
  - (b) An additional grating with 150g/mm (or equivalent) for PL detection
- Please provide list of at least 5 customers who purchased the same or similar instruments during 2016-2019 with their contact address (name, email and phone number).
- Please attach a compliance certificate with respect to the specifications along with the technical part of the quotation.