Quotation Notice

Quotations are invited for the following item in Department of Optoelectronics, University of Kerala, Kariavattom, Thiruvananthapuram

Fourier Transform Infrared (FT-IR) Spectrometer with thin film attachment

Specification:

- Wave number Range required: 30 - 8,300 cm\(^{-1}\)
- Spectral Resolution: 0.4 cm\(^{-1}\) or better
- Automated Spectral Range Switching with a single click incorporating automatic change of beam splitter and detector. Manual change of beam splitter is not acceptable.
- Source: Pre-aligned Mid-/Far-IR long life source with exclusive electronic hot-spot stabilization. User replaceable
- Detector: Two Temperature-stabilized DTGS detector where one optimized for Mid IR and one optimized for Far IR.
- Optics: Gold Coated Optics
- Beam splitter:
  - Mid IR Range: multi-layer potassium bromide
  - Far IR Range: polypropylene/wire grid
- Wavelength Repeatability: 0.02 cm\(^{-1}\) at 1,600 cm\(^{-1}\)
- Wavelength accuracy: 0.1 cm\(^{-1}\)
- Signal to Noise Ratio: 38,000 : 1, peak-peak, 1 minute
- Interferometer: Should incorporates the patented Dynascan rotary interferometer providing inherent immunity to mirror tilt and shear and requires no scanning mirror dynamic alignment.
- Instrument should have the option to upgrade to FTIR Microscope.
- 7-position automated optical filter wheel containing traceable validation materials to allow instrument performance verification.
- Instrument must offer an integrated methane gas cell to ensure high instrument-to-instrument stability and line-shape calibration technology. Automatic, real-time Atmospheric Vapor Compensation should be present.
- ATR Accessory with Diamond crystal should be quoted and it should cover the spectral range up to 30 cm\(^{-1}\).
- Variable Temperature Cell Holder for the transmission study should be quoted for the analysis of solid and liquid samples at temperatures ranging from \(-190^\circ C\) to 250 \(^\circ C\) for solids and \(-70^\circ C\) to 250\(^\circ C\) for liquids.
- Variable-Angle Specular Reflectance Accessory for thin film measurement should be provided.
- Should have the option to upgrade to TGA and both the FTIR and TGA should be from a same company in order to avoid the software compatibility and maintenance issues.
Mandatory Accessories:
- Standard sample preparation utilities, desiccants, Consumables etc should be provided.
- Pellet accessories, hydraulic press, Pellet holder, KBr powder, Poly Ethylene powder and Liquid cells (4 nos.).
- Branded computer (make:HP/Lenovo) of latest configuration with high quality laser printer
- 2 KVA ON-LINE UPS with 1 hour back-up
- Warranty- 3 years after installation and 2 years AMC after the warranty period.
- Free installation and demonstration.
- Back supporting library materials of standard specimens.

The firms who wish to supply the items are requested to submit the quotation in sealed cover to the undersigned on or before 16.03.2013.

02.03.2013

Professor & Head
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