Ref No: PG_Research_ChE/NV/Dec/01 Dated 20-12-2011 LAST DATE: 27-12-2011

Techno-commercial quotation is sought in closed sealed envelope to the undersigned on or before December 27, 2011, for the supply of "Atomic Absorption Analysis" with the following specific features of the instrument:

<u>Specifications of Atomic Absorption Spectrophotometer with graphite Furnace and Vapour Generation Accessory</u>

The Atomic Absorption Spectrometer should be true optically double beam with permanently aligned dual atomizers having capability to use both flame and furnace mode of operation simultaneously from one PC controller. The system should provide D2 background correction for flame part and Zeeman background correction for furnace system.

Fast Sequential capability using hollow cathode lamps in the flame mode of operation, where all the elements (as mounted in the lamp holder) in a sample can be analysed in a single aspiration.

The instrument should have fully sealed quartz quoted optics with a good quality of Monochromator with focal length of at least 250 mm having Holographic blazed diffraction grating, wavelength range: 185 – 900nm. Computer controlled adjustments of spectral bandwidth in steps.

- . The instruments should have P.M.T Detector,
- . It should have automatic gas control system. Sensitivity of the instrument for flame operation should not be less than 0.85 A of 5ppm Cu in 5-seconds integration time.

AC Zeeman background correction is required over the wave length range form 185-900 nm . The system should be provided with water cooling devices. Temperature Should be programmable from 40o to 3000 deg C. Auto Sampler for Zeeman graphite furnace should have capacity of holding at least 50 samples at a time in 2ml vials should be quoted. Graphite furnace should have built in camera for monitoring real time analysis .

The software should be windows based multitasking with a provision of calibration, recalibration, data storage, data manipulation, reslope, post data run, display of recommended condition, graphs, curves, absorption peaks, background correction inter elemental correction including fault / error finding diagnostic features, statistical parameters and all necessary features.

The items to be quoted as follows:

- 1) Coded Single Element Hollow Cathode Lamps for the elements As, Al, Fe, Ni
- 2) Fully PC controlled Hydride Generation Assembly for analysis of hydride forming elements .

- 3) 15 KVA Voltage stabilizer
- 4) Air Compressor, Gas cylinders with regulators, PC/Printer and Fume hood should include the quote
 - (i) Prices should be quoted on FOB basis as well as in Indian Rupees upto destination
 - (ii) Prices should include installation and on-site training
 - (iii)Warranty should at least be for two years.
 - (iv) Validity of quotation should be at least for 60 days
 - (v) Authorized agents must attach proper agency certificate issued by principal supplier within 1 month.
 - (vi)Attach proprietary certificate in case manufacturer is sole manufacturer.

Kindly send your best offer (Technical & Commercial) so as to reach us on or before December 27, 2011 to the following address. Kindly mention the enquiry number and last date on the top of envelop.

Nishith Verma

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