DEPARTMENT OF BIO-TECHNOLOGY
UNIVERSITY OF KERALA, KARIAVATTOM, THIRUVANANTHAPURAM

QUOTATION NOTICE

Sealed Quotations are invited for the purchase of the following equipments with the specifications given against each items:

1. **UV-Vis. Nanospectrophotometer and Microplate Reader**

**Specifications:**

A UV-visible Spectrophotometer both for cuvette and microplate reading option. A monochromator based UV/Vis spectrophotometer with Xenon Flash lamp as light source. The system should be able to read 96 & 384 well plates and standard cuvette as well as low volume cuvettes of any path-length. The wavelength range should be from 200 nm to 1000 nm with 1 nm steps. System should have spectral scanning option for standardizing new assays. The applications should include nucleic acid quantification, protein assays, enzyme kinetic assays, immunoassays (ELISA), cell toxicity assays, apoptosis and reporter gene assays. The instrument should have inbuilt incubation and linear shaking options for ELISA, enzyme kinetic assays etc. Incubation temperature – from ambient +4 °C to +45 °C. Measurement speed should be 6 sec. for 96 well and 10 sec. for 384 well plate. Instrument should be an open system and able to accommodate any consumables from any manufacturer. Instrument has an option for pathlength corrections to correlate the microplate data to cuvette, in case of nucleic acid quantification performed on microplate. Instrument should be compatible for low volume measurement plate for a volume of 2 µl-10 µl.

System should able to run in stand-alone mode OR with computer & software controlled. The instrument should have a memory of 100 inbuilt protocols in stand-alone mode and colour display for better visualization. The instrument should be supplemented with Analysis Software and has unlimited user system license. Software should have Inbuilt calculations, such as Blank Subtraction, Quantitative Curve Fit, Qualitative Classification, Spectral Analysis and Kinetic Calculations, as well as a comprehensive reporting tool. Both measured and calculated data can also easily be exported to other systems like Microsoft Excel for further data handling. There should be an USB port for in the instrument for the easy data transfer.

System should have self diagnostics option to give a guaranteed high quality data.

System should have Power Save function for reduced energy consumption when the instrument is ‘on’ but not in use.
2. **High Speed Table Top Refrigerated Centrifuge**

A table top Refrigerated Centrifuge with the following specifications:
- Max Capacity (ml) 4 x 180, with options for various small volumes.
- Max Speed (rpm) – 25,000, with Max RCF (x g) – 50,377.
- Microprocessor-controlled with pre-cooling programs and Speed Range from 300-25,000 rpm, with 50 ml capacity, max, speed should be 15,000.
- Max Noise Level should < 60 dB, Run Time – 0.9 hrs 59 mins, continuous operation, alternatively 0-99 hrs. Temperature Range (°C) – (-19) to +40.
- Safety – Lid lock and interlock
- Rotors preferred : Angle Rotors – 50 ml rotor with 15 ml adapter (26900 x g), 24 x 1.5 ml (50,000 x g).
- Electrical – 230 V, 50/60 Hz, with Suitable Stabilizer.

3. **A High efficiency Rotary vane vacuum pump, Cold Traps and a Strobe light suitable for a Refrigerated Centrifugal Vacuum Concentrator of Labconco. With the following specifications:**

It should be Chemical Resistant Diaphragm Vacuum Pump, with Displacement capacity : 63 L/minutes, a Ultimate vacuum < 2 mBar.
- CentriZap Strobe Light capable of viewing the samples in the rotor in side the centrivap chamber, while it is spinning, with mounting holster and hardware for attachment to the CentriVap.

4. **Fast Performance Liquid Chromatography (FPLC)**

A preparative type of Fast Performance Liquid Chromatography with fraction collector and UV Vis-Detector for the purification of bio molecules such as peptides, proteins and other types of bio-organic molecules with various options of columns and procedures. Pressure should be higher ranges, modular and with options for up-gradation with respect to detectors and columns.

Please send the quotations with the all details and specifications to the Head, Department of Bio Technology, University of Kerala latest by 21st October, 2013.

Head
Department of Bio Technology
University of Kerala
Kariavattom