

Enquiry No. IITK/CHM/MC/14-15/15
Due date: 23/12/2014 before 3:00 pm

Subject: Purchase of one dual-channel SPR spectrometer with accessories

Please send us sealed quotations for the following item. Please mention tender notice number on top of envelop. Within this sealed envelope, **please put technical and financial bids separately in two sealed envelopes**. A single company/ distributor should quote for all the items. Partial quotations are not allowed.

- ITEM:**
- 1) **One dual-channel SPR spectrometer with :**
 - i) **gas flow module,**
 - ii) **liquid flow module**
 - iii) **electrochemistry module compatibility**
 - iv) **temperature controller**
 - v) **semi-automated sample delivery system**
 - vi) **programmable precision syringe pump**
 - vii) **system control/analysis software**

- ACCESSORIES:**
- 1) **Dual-flow electrochemistry module, electrodes, flow gasket, support Kit, and a serial Interface cable pre-set for coupling to a potentiostat**
 - 2) **Fluidic Support Kit to replace commonly worn components including flow gasket, tubings, and fittings.**
 - 3) **Bare Au sensor chips (30 Nos).**
 - 4) **Pre-Functionalized CM Dextran sensor chip (30 Nos).**
 - 5) **Gas Diluter Package for low pressure gas sample dilution and delivery**
 - 6) **Any other essential accessories**

The surface plasmon resonance (SPR) system must have the following specifications/options:

- 1) An instrument using differential signal amplification detection method with an acquisition rate and response time faster than 0.5 ms and low noise baseline less than 0.1RU (rms).
- 2) Broad temperature control range from 6°C to 50°C for thermodynamic studies and fast stabilization time (typically less than 10 minutes).
- 3) An open detection stage to conveniently enable physical integration with other scientific instruments for various research projects.
- 4) Electrochemical data ports to enable external communication with up to two potentiostats or one bi-potentiostat for integrated EC-SPR data collection.
- 5) A detection system designed for SPR analysis in both liquid phase and gas phase

- 6) A view window to inspect with the naked-eye the SPR absorption line (quality of the gold sensor or modified sensor surface) and optical alignment in real-time.
- 7) Semi-automated sample delivery system with near-zero dispersion and sub-second rapid repeat injection capability for the analysis of ultrafast kinetics.
- 8) A provision for coupling an autosampler to the spectrometer at a later stage
- 9) Serial flow mode for two-channel measurement of the same injection.
- 10) A flexible design enabling SPR analysis in various environments by simply interchanging the easy-mount analysis modules for liquid flow, EC, and gas. The analysis modules are easily mounted without leakage, misalignment and adjustment with screws.
- 11) An easy-mount flow analysis module made of PEEK (polyetheretherketone) material and a gasket made of materials that are biocompatible so that biological samples can be analyzed without memory effects or cross contaminations.
- 12) One software package that can be used for both flow injection SPR and electrochemical SPR measurements.
- 13) Data for bioaffinity measurements can be readily analyzed to obtain kinetic and affinity information during or after experimentation, or exported in text format for 3rd party software analysis.
- 14) Openly accessible SPR sensor chips.
- 15) Gas analysis module made of PEEK material with Stainless Steel fittings.
- 16) An Electrochemical analysis module made of PEEK materials with solution and electrode ports.
- 17) An two channel electrochemical flow through analysis module made of PEEK materials with integrated electrodes.
- 18) Bare Au sensor chips 30 nos .& Pre-Functionalized CM Dextran Sensor Chip-30 nos

Terms and conditions:

1. Maximum educational discounts should be applied – these equipments will be used for research purposes only.
2. The quotation should have a validity of minimum 60 days.
3. The delivery period should be specifically stated.
4. The quoted spectrometer should be from reputed international companies. The spectrometer maker must have supplied the quoted spectrometer (or the previous models) to at least 10 leading universities/research institutes in the USA/Europe/Japan in last 3 years.
5. The installation of the instrument must be free of cost and must be done by the manufacturer.
6. Warranty period should be mentioned and whether after-sale services are available in

India or not. Also, The vendor must be able to provide technical support throughout the warranty period and beyond.

7. Quotes should be made options for the following delivery modes

- I. CIP, Kanpur
- II. CIP, New Delhi

8. Quotation should carry proper certifications like authorization certificate, proprietary certificate, etc. (if applicable).

9. Please mention tender notice number on top of envelop.

Please send your best offer on or **before 23/12/2014 (before 3:00 pm)** to the address given below.

Mail the quotation to:

Manabendra Chandra
Assistant Professor
Department of Chemistry
Indian Institute of Technology, Kanpur.