

## **GLOBAL TENDER NOTICE NO. – 02/2008-09**

### **Specifications for a Stopped Flow Spectrophotometer**

We require a single mixing type, stopped flow spectrophotometer comprising of the following.

1. Single mixing sample handling unit
2. Auto-Emptying waste syringe with full electronic control
3. Grating Monochromator
4. Single Photomultiplier
5. Reference (second) photomultiplier
6. Tungsten lamp for visible and Deuterium lamp for UV range (with power supply)
7. A/D converter (preferably 12 bits or higher, 1.25 MHz or better) and Counter Timer card for data acquisition with software for control and data analysis.

The system should have ceramic Stop/Waste valve and fitted with safety interlocks. It should be capable of carrying out absorbance measurements in a wavelength range of 200-800 nm.

#### **Other specifications are:-**

- I. Path length: 10 and 1.5 mm
- II. Temperature range of operation: 5-50°C
- III. System dead time: Less than 1 ms
- IV. Min shot vol: 50 micro lit of each solution
- V. Sample circuit: Chemical Resistant, PEEK
- VI. Mixer: High efficiency T format
- VII. Cell volume: 22.5 micro lit.

The complete system must also include the compressed air facility, the pneumatic drive and anaerobic kit.

It should also be quoted with the following optional items.

- A. Thermostat and freezer with liquid circulation
- B. A rapid scan diode array system for fast scanning
- C. Compressed air facility, the pneumatic drive and anaerobic kit.
- D. Temperature Jump attachment for Stopped Flow equipment.

## **Specification for temperature jump attachment**

1. Temperature – jump sample handling unit
2. Power Supply (15 KV)
3. Photo Multiplier detector
4. Control Unit (Signal conditioning unit)
5. Optical Rail
6. Grating Monochromator
7. a - Xenon light source (75W) with stabilized Power Supply  
b - Visible light source (Tungsten) (340 - 800nm)
8. Fast A/D Converter (12 bit, 1.25 MHz)
9. Kinetic Software for windows XP
10. Timer Card.

Additional requirement:- a PC and a printer to be supplied locally.

## **Commercial Terms & Conditions**

**1. Price:** The price required to be quoted on Ex-works (inclusive of necessary export packing cost). This does not include the applicable duties & taxes. The price quoted in the tender required to be quoted in ink, both in figures & words. In case of any discrepancy, the rate quoted in figures will be accepted.

**2. Price Validity:** - The price validity of the system should not be less than six months from the date of opening of the tender.

**3. Specification and quantity:** - The specification as well as the configuration and quantity of the equipment are required to be strictly as per the requirement of the indenter.

**4. Payment:** - The payment will be made against letter of credit (L/C). 90% of the L/C value will be released against successful delivery of the consignment at IOP site and balance 10% will be released after successful installation, commissioning of the system against submission of performance bank guarantee of equivalent amount valid for the entire warranty period. The bank guarantee required to be issued by a nationalized bank.

**5. Delivery:** - The delivery of the system is required to be made within 12 weeks from the date of establishment of L/C.

**6. Bank charges:** - The bank charges inside India to the applicant account and outside India to the beneficiary account.

**7. Warranty:** - The system required to be warranted against manufacturing and functional defects for 1 year or 15 months from the date of successful completion of installation, commissioning.

**8. Liquidated damage:** -The liquidated damage is to be collected @ 0.5% of the total value per delayed week or part thereof or 5% (aggregate) of the total order value if such case arises.

**9. Installation and testing:** - Installation and testing of the system at our site with your instruments, accessories, tools & tackles; deploying appropriate manpower as required, at your cost.

**10. Supply of spares:** Supply of spares should be ensured for at least for 3 years from the date of supply.

**11. Experience:** Details of the client list for supplying similar type of instruments have to be submitted.

**12. Agent:** An Indian agent, if any, who will participate in this Tender on behalf of one manufacturer, will not be eligible to present another manufacturer.

DIRECTOR