



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
MATERIALS MANAGEMENT DIVISION
Powai, Mumbai - 400076

PR : 1000016224

Rfx : 6100000894

Technical Specifications

Stopped Flow FLUORESCENCE SPECTROMETER

A stopped-flow instrument is required with the following specifications for rapid kinetics :

1. Computer controlled and fully programmable sample handling unit with 4 user interchangeable syringe & drive valve assembly and variable syringe volume.
2. Rugged design – ceramic stop/waste valve, one piece manifold, stainless steel enclosure. Air driven with Pneumatic Drive Mechanism, automatic stepper motor stops (for double mixing)
3. Light Source that should be quoted are: Xe Lamp standard and Hg/Xe Lamp for Fluorescence application
4. The machine must have facility of measuring both absorbance/fluorescence detection
5. Wavelength range should be 240 – 800 nm
6. Minimum volume of each reagent should be 40 ul or less during each shot.
7. Kinetic Mode: Absorbance, Fluorescence and Light Scattering
8. Detector: High Sensitivity PMT for Abs and Fluorescence.
9. Minimum dead time <2 ms, and appropriate optical cell accessory to have 0.5 ms dead time.
10. There should be multi-mixing (Double Mixing) mode.
11. Set of Cut of Filters to be quoted such as 295, 345, 395, 420, 495, 550, 590 610, 665 nm.
12. Fluorescence Polarization/anisotropy accessory, must have excitation and emission polarizers, and simultaneous measurement of fluorescence and anisotropy.
13. A suitable circulating refrigerated programmable water bath in the temp range -10 to 85 deg C to be quoted. The water bath should be integrated with the desktop for computer-controlled temperature management.
14. Mixing ratio must be available with 1:1, 5:1, 10:1 and 20:1. Suitable set of syringes must be quoted for various ratio mixing.
15. A CCD detector for Multi Wavelength Detection should be included.
16. All parameters should be controlled through software on PC such as delivery, mixing, data acquisition and data collection.

17. Quotation should include suitable two (2x) i5 all-in-one desktop or comparable models, and 1 x N2 Gas cylinder with double gauge pressure regulator and 1 x cylinder trolley/stand.
18. The system must be available for future upgrade for Conductivity cell assembly, Pressure-Jump, T-Jump, Low temp accessory for temp down to -20 deg C and Anaerobic accessory.
19. Training with reference standards must be provided at the time of installation.
20. Spares Kit should be included comprising of: 2 x 1.0 ml stop syringes, 2 x 1.0 ml drive syringes, 2 x 2.5 ml syringe, 2 x drive valves and a range of fuses.
21. Should include 3 Years of comprehensive warranty.