



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai - 400076

Technical Specifications for UV Transient Response PL Setup

RFx No. 6100000758 (Reference No. 1000020716)

- System should be integrated into the Existing femtosecond laser and Upconversion spectrometer in the Lab, utilizing the existing optical components, and supporting the same sample excitation conditions as in the upconversion experiment.
- The upgrade should not require any additional table space.
- Complete System quoted should also be able to work in standalone operation with a dedicated picosecond pump light source as well as with an external pump beam provided by the existing femtosecond laser. All the necessary electronics and drivers should be quoted with the system

Tender specifications are as follow:

Picosecond light source

- Spectral range: 360-860 nm
- Pulse duration: <150 ps. Typically: <100 ps.
- Easily characterizable temporal pulse profile (for kinetic deconvolution)
- Repetition rate: 1-10 MHz
- Externally triggerable
- Average output power: 6 μ W/nm @ 1MHz
- Computer-controlled
- Set of bandpass filters (FB340-10, FB400-40, FB500-40) should be Included as part of the system

Picosecond Time-Correlated Single Photon Counting

- Electronics and software for measuring fluorescence over nanosecond and longer time window with a 25 ps minimum step size.

TCSPC Detector

- Spectral range: 220-650nm
- Temporal response: 50 ps

System should carry a one-year warranty.