

*Unmatched ease-of-use and performance in a very affordable system
Starting at 30,000 USD*

DeltaPro™ Lifetime System



Highlights:

- Filter-based wavelength selection for high optical throughput
- Our fast PPD picosecond photon-detection modules standard
- Comprehensive analysis software
- Cell holder equipped with stirrer and temperature sensor
- Large sample chamber with efficient UV-grade optics
- F-link spectrometer interface for plug-and-play upgrades

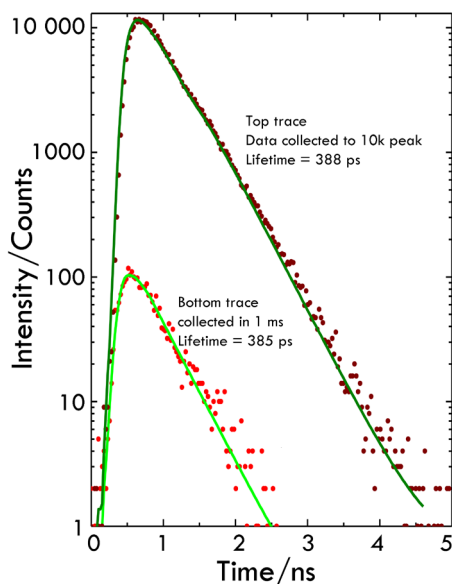
Modular USB design simplifies TCSPC. The DeltaPro TCSPC system maximizes the power of fluorescence dynamics. The DeltaPro uses the latest pulsed semiconductor light sources for excitation of fluorescence and phosphorescence, obtaining lifetime measurements from 25 ps to 1 second with acquisition times as short as 1 ms, which is ideally suited for kinetic studies.

Feature	Spectroscopy Benefits
Fast acquisition of lifetimes	As short as 1 millisecond
Single-photon counting detection	Highest sensitivity
Extremely accurate	Timing circuits never need recalibration
Widest temporal range	Resolves lifetimes from 25 ps to 1 second
Modular design	Easily update configurations
Small footprint	Stackable components
Simple to connect	Single USB connection



	DeltaPro-DD	DeltaPro-NL
Minimum lifetime	25 ps with laser-diode source	30 ps with laser-diode source
Shortest acquisition time	1 millisecond*	100 milliseconds*
Diode controller	DeltaDiode and SpectraLED	NanoLED and SpectraLED
Repetition rates	10 kHz–100 MHz with DeltaDiode* 0.1 Hz–10 kHz with SpectraLED	10 kHz–1 MHz with NanoLED 0.1 Hz–10 kHz with SpectraLED
Prompt FWHM	<200 ps FWHM with PPD and laser diode	
Dead time	10 ns	
Time ranges	10 ns–11 s	100 ns–11 s
Wavelength selection	Interchangeable filters (filters optional)	
Detector response	250–650 nm standard; 250–850 nm and 300–900 nm optional	
PC interface	USB 2.0. PC optional. Requires Windows® XP or Windows® 7, 32/64-bit English language ver.	
System footprint	75 cm × 45 cm nominal excluding PC (depending on options)	

*Dependent on sample and system configuration



Fast measurement

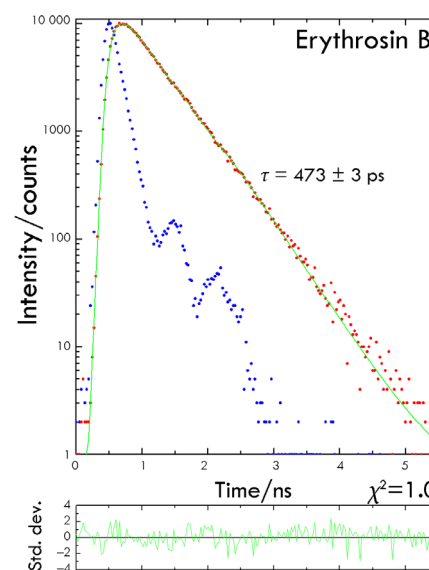
Sample: BODIPY derivative

Excitation: DeltaDiode at 100 MHz

Emission: Long-pass filter >515 nm

Perfect for:

- Fast acquisition of short lifetimes
- FRET (Förster Resonance Energy Transfer)
- Stern-Volmer quenching
- Lanthanide luminescence
- Time-resolved fluorescence and phosphorescence anisotropy
- Protein fluorescence
- Solar-cell analysis
- Materials research
- Photophysical research
- Binding studies



Picosecond lifetime

Erythrosin B in methanol