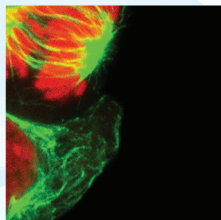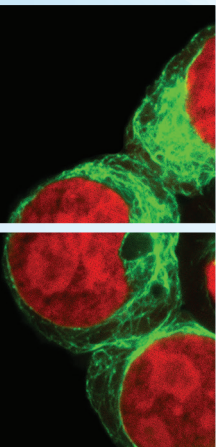# HORIBA
Scientific

Ultima™

Optimized fluorometer for short lifetimes

ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & OEM SPECTROMETERS
OPTICAL COMPONENTS
FORENSICS
PARTICLE CHARACTERIZATION
RAMAN
SPECTROSCOPIC ELLIPSOMETRY
SPR IMAGING

Ultima, the best time resolution TCSPC system!

Ultima combines the latest in high temporal resolution TCSPC electronics, interchangeable high speed light sources and detector technologies, and our FluoroCube, the most flexible optical platform, to offer the highest performance photon counting lifetime system available.

Choose from the most comprehensive range of pulsed light source and detector options, including:

- DeltaDiode Picosecond laser diodes from 370 nm to NIR
- Picosecond and Nanosecond LEDs from 260 nm to NIR
- Ti-sapphire laser and multi-photon options
- Highly integrated Picosecond PMT modules
- Microchannel plate PMTs for the ultimate in time resolution
- UV to 1700 nm spectral coverage

Three systems to choose from:

1. **Ultima-01(11)-DD**
   Lifetime system with emission monochromator (01) or excitation and emission monochromators (11) and diode laser excitation
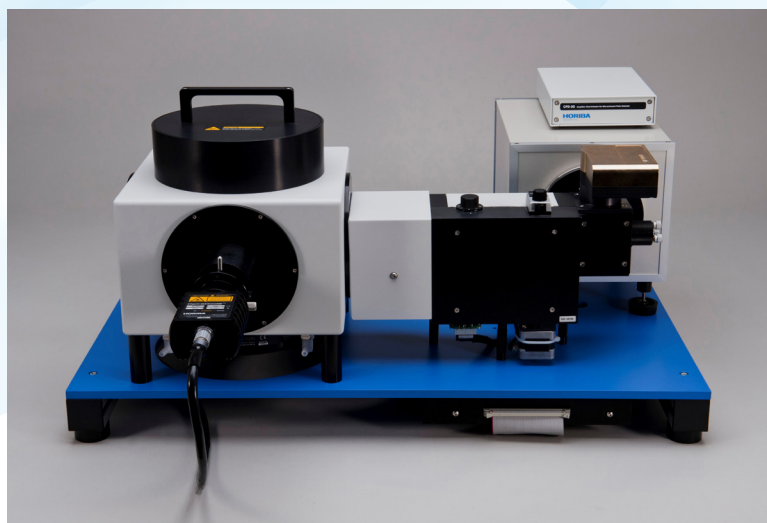2. **Ultima Ultrafast 01-Ti**
   Our shortest lifetime (5 ps) system with emission monochromator, external mode locked laser (e.g. Ti:sapphire)*, and MCP PMT detector.
3. **Ultima Ultrafast 01-DD**
   Our short lifetime system with emission monochromator, interchangeable DeltaDiode laser excitation, and MCP PMT detector.
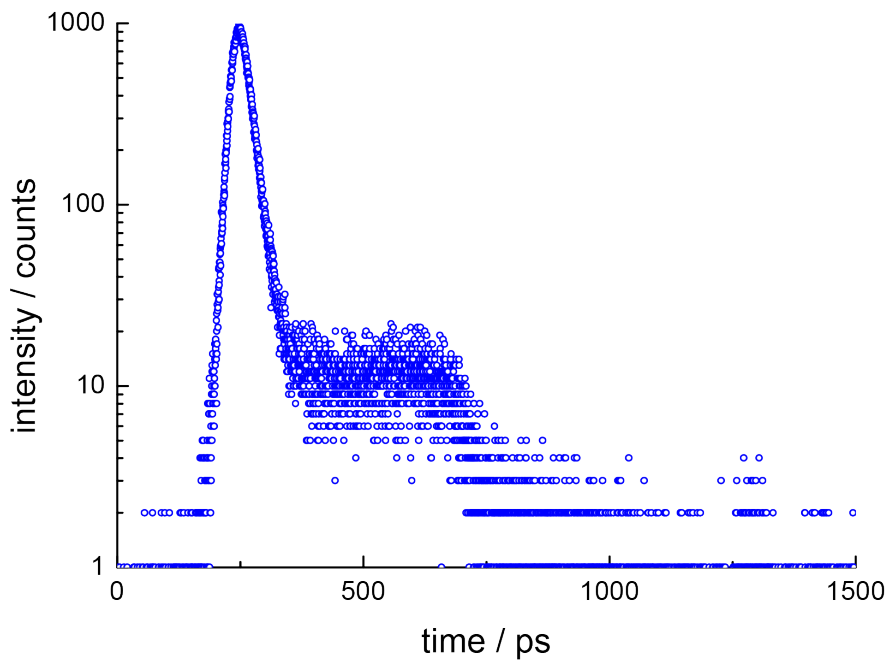
*Ti-Sapphire laser is not included

JOBIN YVON
Technology

Specifications

Minimum Lifetime	5 ps (with Femtosecond laser and MCP)
Measurement Range	5 ns-22 s
Electrical Time Resolution (time/pt)	<400 fs
Timing Jitter	<10 ps FWHM (3 ps RMS)
Maximum Repetition Rate	20 MHz (recommended)
Maximum Histogram Size	16 k
Phosphorescne Resolution	42 ns/pt
Interface	USB 2.0
Driver	32-bit and 64-bit Windows
Automation	Standard: Lenses, monochromator, diode controllers. Optional: Polarizers, sample turret, sample temperature.
PC Interface	USB 2.0. PC not included. Requires Windows® XP or Windows 7, 32/64-bit English language ver.
System Footprint	73 cm x 69.5 cm nominal excluding PC (Ultima-UltraFast-01-DD)

*dependent on sample and system configuration

Instrument Response Function (IRF) of Ultima measured with a DeltaDiode-405L and R3809 MCP-PMT. The resulting 34 ps FHWM IRF demonstrates the instrument's ability to measure lifetimes shorter than 5 ps using reconvolution.

info.sci@horiba.com   **www.horiba.com/scientific**

USA:	+1 732 494 8660	**France:**	+33 (0)1 69 74 72 00	**Germany:**	+49 (0)89 4623 17-0
UK:	+44 (0)20 8204 8142	**Italy:**	+39 2 5760 3050	**Japan:**	+81 (75) 313-81231
China:	+86 (0)21 6289 6060	**Brazil:**	+ 55 11 2923 5400	**Other:**	+1 732 494 8660

HORIBA
Scientific

Explore the future   Automotive Test Systems | Process & Environmental | Medical | Semiconductor | Scientific   **HORIBA**