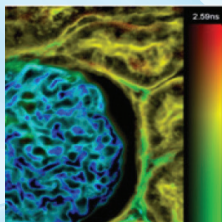
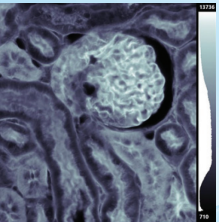
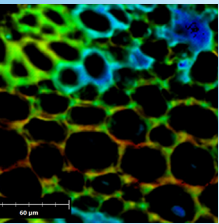


InverTau

Fluorescence Lifetime Imaging Platform

ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & OEM SPECTROMETERS
OPTICAL COMPONENTS
CUSTOM SOLUTIONS
PARTICLE CHARACTERIZATION
RAMAN / AFM-RAMAN / TERS
SPECTROSCOPIC ELLIPSOMETRY
SPR IMAGING



For lifetime acquisition
from 50 ps to seconds timescale



Features

- Affordable laser scanning unit for FLIM studies
- Fully computer-controlled confocal optics, with the intuitive EzTime Image software, minimizes set up time and increases productivity.
- Simply switch from confocal laser scanning to widefield imaging with the addition of FLIMera.
- Real time video display up to 6 fps with InverTau, and up to 30 fps with FLIMera
- Intuitive software and automated optics minimize setup time and increase productivity.

EzTime Image Software

EzTime Image software is an intuitive and automated software package developed specifically for FLIM, offering TCSPC and MCS control, acquisition and analysis. Optimized for use with touchscreen computers and monitors, this complete application handles:

- Data analysis with built-in spreadsheet editor, scripting features and export function to MS[®] Excel
- Real-time display and reporting of intensity and average lifetime, including lifetime kinetics of selected regions of interest.
 - Global Lifetime analysis using up to 5 exponentials, including display of normalized pre-exponentials for each lifetime, average lifetime and chi-squared value.
 - Establishes upper and lower thresholds to display both TCSPC intensity and lifetime images to zoom in on those ranges.

The HORIBA InverTau is a laser scanning platform for Fluorescence Lifetime Imaging (FLIM) on an inverted microscope. InverTau flexibility provides seamless integration of pulsed laser sources and single photon counting detectors, in addition to the award-winning FLIMera widefield camera. InverTau is powered by HORIBA's highly intuitive and extremely powerful EzTime Image touchscreen software interface, and is based on Time Correlated Single Photon Counting (TCSPC) using FiPho timing electronics. InverTau comes complete with a Nikon Ti2-U manual microscope, and is optimized for use with our innovative pulsed lasers.

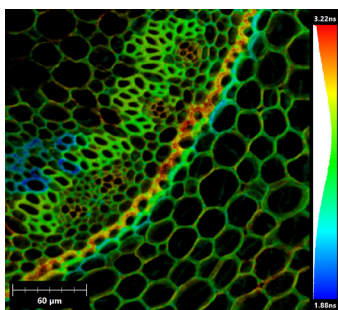
Detection

To achieve the highest quantum efficiency, the InverTau is configured with the HPPD-720, our latest development in TCSPC detector technology that combines the benefits of conventional PMT design (wide spectral response and large active area) with the advantages of solid state APD technology (exceptional temporal resolution, good detection efficiency and negligible afterpulsing).

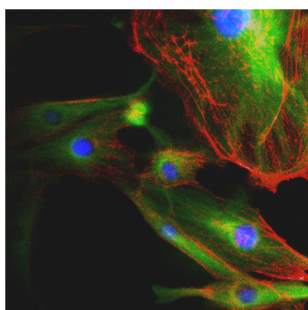
HPPD-720 Benefits

- High quantum efficiency (QE)
- Reduced afterpulsing for better decay residuals
- Peltier temperature controlled for stability
- Fully shielded design
- Includes preamplifier, constant fraction discriminator, and temperature stabilization in a user-friendly housing

InverTau Images



Convallaria



BPAE Intensity 3 Color Merge

OPTIONS:

Excitation Sources

HORIBA DeltaDiodes utilize laser diode technology to generate short optical pulses over a very wide range of repetition rates and wavelengths. Optical pulses shorter than 50 ps can be generated at repetition rates up to 100 MHz. Features such as easily interchangeable (hot-swap) pulsed laser diode, a selection of handy accessories such as fiber launchers and filters, USB control and full software integration enable the DeltaDiodes to deliver the highest level of performance in the most user-friendly package available today.

In addition, HORIBA provides the Solas fiber-amplified laser, with emission at 532 nm. This laser delivers up to 30 mW of power.

FLIMera – Widefield TCSPC Camera

The awarding winning FLIMera is a widefield Fluorescence lifetime imaging (FLIM) camera that is capable of real-time FLIM video rates, with 192 x 126 imaging pixels, each with in-pixel timing. It uses time-correlated single photon counting (TCSPC), and provides real-time FLIM video acquisition at up to 30 fps.



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