

PRODUCT OVERVIEW

Fluorescence Spectroscopy

Research and Analytical Instrumentation



Edinburgh Instruments is a world-leader in both single photon counting and time-correlated single photon counting (TCSPC) based fluorescence spectrometers. Edinburgh Instruments has been custom manufacturing research grade products for the diverse needs of its customers for over 45 years.

We are recognised internationally as a company that offers maximum flexibility and exceptional quality in both instrumentation and services. We have a worldwide base of over 1000 high-specification systems in industry and leading universities. Highlighted in this product overview are the most popular products from our Photonics division.



1000+

high-specification systems in industry and leading universities



45+

years of manufacturing research grade products for the diverse needs of its customers



FLS1000

**Photoluminescence Spectrometer
Combined Steady State and
Lifetime Spectrometer**

The FLS1000 is a state-of-the-art, modular photoluminescence spectrometer for the most demanding applications in Photophysics, Photochemistry, Material Sciences and Life Sciences.

The instrument sets the standards in both steady state and time-resolved spectroscopy. The system demonstrates unmatched sensitivity and can be configured for spectral measurements from the ultraviolet to the mid-infrared spectral range, and for lifetime measurements spanning time resolutions over 12 orders of magnitude from picoseconds to seconds.

- > Modular construction for maximum flexibility and upgradability
- > Industry leading sensitivity specification >30,000:1 (SQRT Method)
- > Unrivalled spectral coverage from the deep UV to the MIR, 185 nm up to 5,500 nm
- > Unmatched monochromator performance with "plug and play" triple-grating turrets, integrated filter wheel, 325 mm focal length and excellent stray light rejection
- > Multiple light sources, detectors, single or double monochromators available
- > Intuitive Fluoracle® software for all steady state and time-resolved measurements with standard and advanced data analysis options



FS5

**Spectrofluorometer
Compact Steady State and
Lifetime Spectrometer**

The FS5 is a compact, fully integrated, steady state and lifetime fluorescence spectrometer designed to meet the highest specifications in the research and analytical markets.

The ultimate in sensitivity for an instrument in its class at >6000:1 (water Raman signal-to-noise), coupled with high speed data acquisition and ease of use, makes the FS5 the ideal plug and play analytical tool. The optical design utilises specially selected optics to achieve the maximum in signal throughput.

Using single photon counting techniques for the highest detection sensitivity, the FS5 delivers data you can trust with no need for training.

The standard FS5 has a number of upgrade routes that are unique in its class, including:

- > Extended wavelength coverage to 1650 nm while maintaining the specified sensitivity in the UV and visible spectral range
- > Computer controlled polarizers to allow for automated anisotropy measurements
- > Phosphorescence lifetime option for lifetime measurements in the range of microseconds to seconds
- > Fully integrated fluorescence lifetime option (TCSPC based) for the measurement of lifetimes in the range of picoseconds to microseconds
- > Plug & Play 'intelligent' sample cassettes automatically recognised by the software to measure solids, liquids, powders and thin-films



Pioneers

in Time-Correlated Single Photon Counting (TCSPC)



Flexibility

Customised solutions to meet your exact requirements



Manufactured

with pride in the United Kingdom

Get in touch

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All specifications are correct at the time of production.
We reserve the right to change our specifications without notice.
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LP980

Transient Absorption Spectrometer

Laser Flash Photolysis and much more...

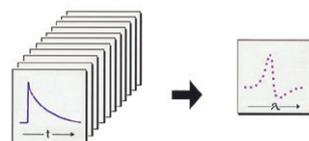
A first of its kind on the market, the LP980 allows for the measurement of transient absorption, laser-induced fluorescence and phosphorescence, all in one instrument.

At the heart of the LP980 is a fully automated, turnkey spectrometer for acquiring transient absorption kinetics and spectra based on the laser flash photolysis (pump-probe) technique.

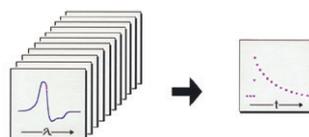
This method studies transient chemical and biological species, such as excited states and radicals generated by a short intense light pulse (e.g. nanosecond pulsed laser, i.e. Nd:YAG or Excimer Pumped Dye laser). The presence of these transient species is detected as absorption kinetics using a powerful Xenon lamp as the probe / background source.

- > The LP980K – Kinetic System, uses a PMT or InGaAs detector for the acquisition of kinetic traces
- > The LP980KS – Kinetic and Spectral System, combines techniques by integration of an ICCD camera to obtain gated absorption spectra
- > A range of special application options are available, such as stop-flash / flow accessories and temperature control options

Kinetic data-slicing to produce spectra



Spectral data-slicing to produce a kinetic trace



Fluorescence Lifetime Products

Edinburgh Instruments manufacture a variety of spectrometers that are dedicated to the measurement of fluorescence lifetimes using TCSPC.



Lifespec II

The Lifespec II is a high performance monochromator-based fluorescence lifetime spectrometer, featuring a double emission monochromator in subtractive mode providing zero temporal dispersion.

The system is designed for use with high-repetition rate femtosecond / picosecond lasers. It has a spectral range of 200 nm - 1700 nm and lifetimes down to ~5 ps can be measured.



Picosecond Pulsed Diode Sources

Our compact picosecond pulsed diode lasers and LEDs are designed for use with TCSPC systems. These light sources are easy to use and ideal as excitation sources for spectrometers.

Laser wavelengths are available from 375 nm - 980 nm, with typical pulsewidths of <100 ps. Wavelengths for the LEDs are available from 250 nm - 610 nm, with pulsewidths of ~800 ps.



Mini-tau

A compact filter-based fluorescence lifetime system designed for use with picosecond pulsed lasers and LEDs.

Ideal for educational research labs, as well as routine measurements and research.

The Mini-tau is an ultra-compact, low cost spectrometer designed for lifetimes ranging from 25 ps to 50 ps with integrated electronics with repetition rates up to 100 MHz.