

**The Edinburgh Instruments FLS900  
Fluorescence spectrometer**

**Category:**  
**C. Particle Characterisation**

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**Short technology description/Overview:**

Fluorescence is the emitted light by a compound due to excitation of light of a shorter wavelength. Fluorescence can be applied to as well inorganic as organic compounds. Except from the emission spectrum also lifetime of the fluorescence gives information about the compound under investigation.

**Main Features (Equipment Capabilities):**

The FLS920 is a spectrofluorimeter offering combined steady state and fluorescence lifetime capabilities.

A sample holder for solutions is available as well as a holder for solid samples.

A 450W Xenon lamp is used as probe for steady state experiments.  
A Photo Multiplier Tube is the detector.

Pulsed lasers and light emitting diodes are used for lifetime measurements.  
Correlated Single Photon Counting (TCSPC) using a MicroChannel Plate is the method. Special dedicated software is available for analyzing time resolved data.

An Oxford Instruments OptistatDN variable temperature liquid nitrogen cryostat can be used for low temperature experiments down to 77K.



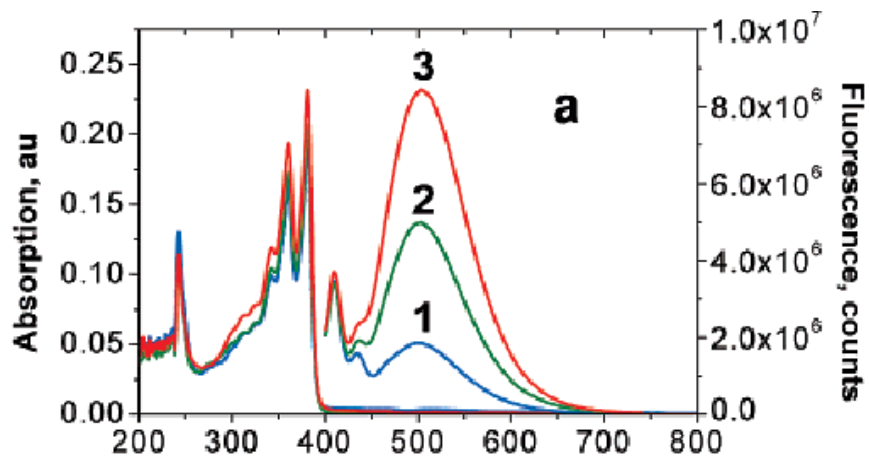
Available pulsed lasers:

Wavelength (nm)	FWHM (ps)
372	~40
444	~45

Available LED's

Wavelength (nm)	FWHM (ps)
265	~550
283	~410
309	~340
334	~340
501	~760

**Typical Samples & Images:**



Typical absorption and fluorescence spectra. (Palaniswamy Ganesan et al, 2007, Org. Lett., Vol 9, No12, p2297)

*Any further Information:*