

FLS1000 Research Fluorimeter

The Edinburgh Instruments FLS1000 Research Fluorimeter is a state-of-the-art modular spectrometer for steady-state and time-resolved photoluminescence (PL) measurements. It enables comprehensive characterization of emissive materials across a broad spectral range (230–1000 nm), supporting both liquid and solid samples under variable temperature conditions (77–300 K).

The system is fully computer-controlled via Fluoracle software, providing automated spectral correction, lifetime analysis, and quantum yield determination. The FLS1000 is ideal for investigating photophysical processes in nanomaterials, photocatalysts, and hybrid systems.



Key Features

Light sources

450 W xenon lamp (230–1000 nm), microsecond xenon flashlamp (0.1–100 Hz)
405 nm 40 mW • 488 nm 20 mW • 640 nm 40 mW

Excitation/ Emission Monochromators

Double Czerny-Turner configuration, f/4,
325 mm focal length, stray light suppression
 $>10^{10}$, 0.01 nm step size

Detection

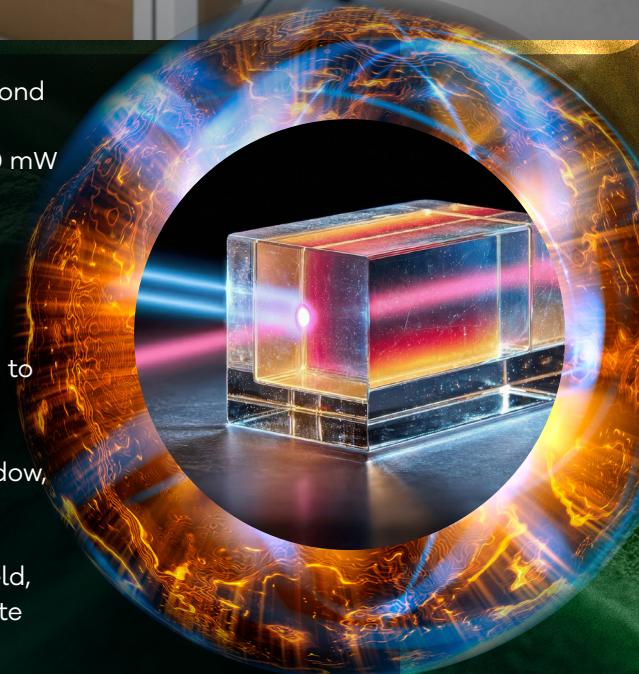
Extended red PMT (200–980 nm), TE-cooled to
–20 °C, dark count <100 cps

TCSPC electronics

Temporal resolution <25 ps, 2.5 ns–50 µs window,
up to 8192 bins

Accessories

Integrating sphere for absolute quantum yield,
 LN_2 cryostat (77–300 K), thermostated cuvette
holder, solid/powder holder



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