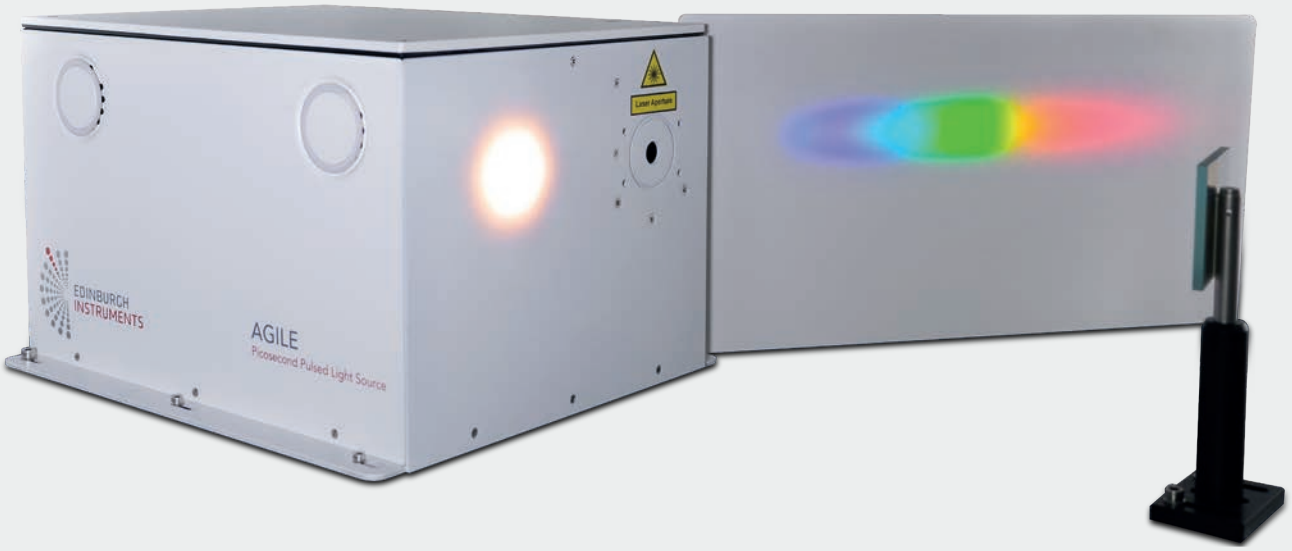
# AGILE

## Picosecond Pulsed Light Source

EDINBURGH INSTRUMENTS




## AGILE® is a wavelength-tuneable, high brightness supercontinuum laser providing picosecond pulses with variable kHz to MHz repetition rates.

AGILE features a broadband spectral output from <400 nm to >2000 nm and pulse repetition rates from 10 kHz to 1 MHz, making it the ideal light source for the majority of fluorescence lifetime applications. Using the Time-Correlated Single Photon Counting (TCSPC) technique, fluorescence lifetimes from a few picoseconds to microseconds can be accurately resolved.

Two different trigger outputs in AGILE enable operation in TCSPC and Multi-Channel Scaling (MCS) modes. MCS operation enables faster acquisition of lifetimes in the microsecond range.

Coupling AGILE to a monochromator provides continuous wavelength tuning across the visible and near-infrared spectrum with output power and temporal profile comparable to individual, single wavelength, picosecond pulsed diode lasers.

The output of AGILE can be configured as a collimated beam for free-space applications or focused with F-number matching to the Edinburgh Instruments FLS1000 Photoluminescence Spectrometer. When operated as part of the FLS1000, AGILE is fully computer controlled by the spectrometer operating software Fluoracle®.

AGILE is a turn-key, wide wavelength range light source, providing a user-friendly and maintenance-free solution for any fluorescence laboratory.

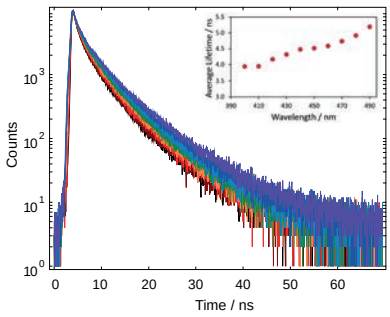
AGILE connected to an FLS1000 Photoluminescence Spectrometer.

# SPECIFICATIONS

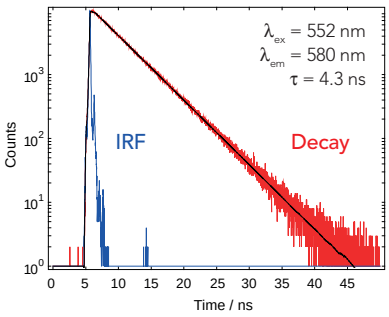
| | | | | | | |
|---|---|---|---|---|---|---|
| **Wavelength Range** | < 400 nm … > 2000 nm | | | | | |
| **Repetition Rate** | 10 kHz - 1 MHz | | | | | |
| **Wavelength Range** | 400 - 500 nm | 500 - 600 nm | 600 - 700 nm | 700 - 800 nm | 800 - 900 nm | 900 - 1000 nm |
| **Average Output Power / 10 nm Bandpass *** | 0.51 mW | 0.39 mW | 0.30 mW | 0.27 mW | 0.17 mW | 0.11 mW |
| **Typical Pulse Width** | 350 ps | 250 ps | 200 ps | 200 ps | 200 ps | 200 ps |
| **Total Power Stability** | < 2% ** | | | | | |
| **Polarisation** | Unpolarised | | | | | |
| **Beam Output** | Collimated or focused | | | | | |
| **Computer Interface** | USB 2.0 | | | | | |
| **Synch Output** | NIM (for TCSPC) | | | | | |
| **Trigger Output** | TTL (for MCS) | | | | | |
| **Interlock Input** | Hirose HR10-7R-4S (73) | | | | | |
| **Operating Temperature** | +15°C to +30°C | | | | | |
| **Software Control** | Fluoracle | | | | | |
| **Power** | 90 - 240 VAC, 1A, 50/60 Hz | | | | | |
| **Dimensions** | 410 mm (L) x 305 mm (W) x 245 mm (H) | | | | | |
| **Weight** | 14 kg (approx) | | | | | |

* at a repetition rate of 1 MHz ** after 20 min warm up time in stable environment

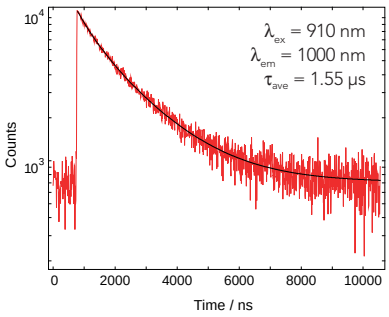
**1 Carbon dots**

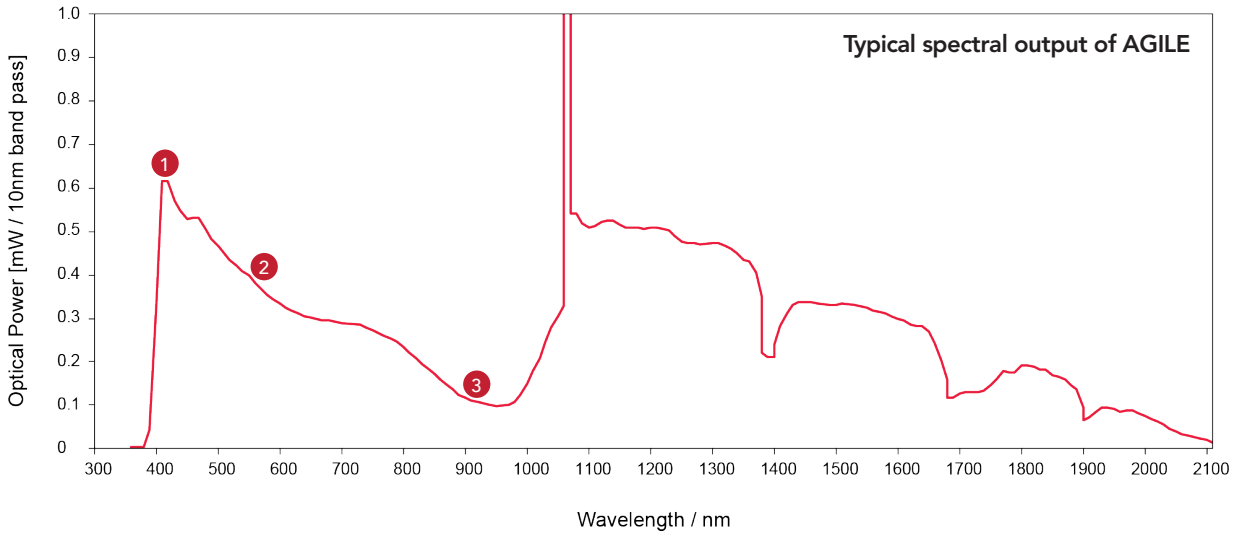



**2 Rhodamine 101**




**3 PbS quantum dots**

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