

Lasers at 594 nm for Fluorescence-Based Applications

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A new series of Sapphire lasers from Coherent at 594 nm are ideal for fluorescence-based applications in life sciences. Formerly, this wavelength was only available from inefficient, low-power HeNe lasers, or from diode-pumped solid state (DPSS) lasers utilizing complex frequency-mixing schemes. Based on Coherent's unique optically pumped semiconductor laser (OPSL) technology, these new Sapphire 594 lasers offer superior performance, reliability, efficiency and value compared to these older technologies. Measuring just 125 mm x 70 mm x 34 mm, they provide identical form, fit, and function compatibility (optical, mechanical, electrical, and interfacing) with all other Sapphire LP and FP models, independent of wavelength and power class. This simplifies integration, including wavelength addition and substitution, for OEMs and end users alike. And as with other Sapphire lasers, the new 594 nm models are equipped with USB, RS-232 and analog interface ports for ease of installation and operation.

These new lasers are available with either free-space (Sapphire 594 LP) or fiber-pigtailed (Sapphire 594 FP) output and are offered with output powers of 20 mW, 50 mW, or 75 mW respectively 40 mW ex fiber. They feature excellent power stability (< 2% over 2 hours), and low noise (0.25% RMS from 20 Hz to 2 MHz). Free space models deliver a collimated, TEM00 beam with M2 <1.1, low beam divergence (<1.3 mrad) and high pointing stability < 5 μ rad/°C.

For more information, visit: www.Coherent.com [1].

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[1] <http://www.Coherent.com>

