

Styryl 8

Synonym: LDS 751*

Catalog No.: 07512

MW: 435

Appearance: Dark green crystals

Lasing Wavelength		Pump Source (nm)	Solvent	Concentration (molar)	Abs λ -max	Fl λ -max	% CE*
Max. (nm)	Range (nm)						
743	715-779	Nd:YAG(532) ¹¹⁰	Methanol	3×10^{-4}	551 ^m	732 ^m	11
744	712-782	Nd:YAG(532) ²³⁹	Ethanol	3.2×10^{-4}	558 ^s		--
750	714-790	Nd:YAG(side-p,532) ⁵⁷	Methanol	3.4×10^{-4} (osc),			12
754	714-792	Nd:YAG(end-p,532) ⁵⁷	Methanol	3.4×10^{-4} (osc), 4.5×10^{-5} (amp)			7
764	733-802	Nd:YAG(532) ²³⁹	DMSO	3.2×10^{-4}			--
780	740-820	Nd:YAG(532) ¹⁵¹	DMSO				--
	700-812	Ar(m-l,514) ¹³⁶	PC/EG,15/85	2.0×10^{-3}			11
754	730-796	Ar(SF) ¹⁷⁴	EPH	2×10^{-3}			--
756	710-850	Ar(bb) ⁶⁸	PC/EG,1/4	3.4×10^{-3}			--
756	720-840	Ar(SF) ⁶⁸	PC/EG,1/4	3.4×10^{-3}			--
762	715-830	Ar(514) ¹⁵²	PC/EG,15/85	1.2×10^{-3}			9-11
764	731-806	Ar ¹⁷⁴	EPH	2×10^{-3}			--
765	715-840	Ar(all line) ^{17,150}	PC/EG,15/85	2×10^{-3}			14
772	711-845	Ar ^{127b}	PC/EG,15/85	1.2×10^{-3}			--

DMSO = dimethylsulfoxide; EG = ethylene glycol; PC = propylene carbonate; m = methanol

Quantum Yields and Lifetimes

Absorbance (nm)	Emission (nm)	Quantum Yield (max = 1.0)	Solvent	Lifetime (ns)	References, Notes
	720		Ethanol	54±5ps	S-3
	720		Methanol	41±4ps	S-3
	700		PMMA	85±8ps	S-3

REFERENCES:

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110. Lumonics Inc., 105 Schneider Road, Kanata, (Ottawa), Ontario, Canada K2K 1Y3
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136. High Efficiency Picosecond Pulse Generation in the 675-930nm Region from a Dye Laser Synchronously Pumped by an Argon-Ion Laser, P. Bado, C. Dupuy, K.R. Wilson, R. Boggy, J. Bowen and S. Westra, *Optic Commun.*, 46(3,4), 241 (1983)
150. Styryl 8 Performance in a Model 375B Dye Laser, T. Gray, Spectra-Physics Memo No. 84-4, 1984



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239. P. Jauernik, private commun., Sirah Laser- und Plasmatechnik, 2003.
- S-3. Fluorescence Lifetime Imaging on the Picosecond Timescale, S. Brustlein, F. Devaux, B. Wacogne and E. Lantz, Laser Physics 14 (2), 238 (2004), <https://pascal-francis.inist.fr/vibad/index.php?action=getRecordDetail&lang=en&idt=15556172>

For a current list of biology, biological stain, or biochemistry references for LDS 751 from PubMed, click on the following link:
[LDS 751](#) ("Styryl 8" is not in the PubMed database as of May 2006)

NOTES:

* Exciton's LDS751 is not the same as Lambda Physik's Styryl 8

CE = Conversion efficiency reported by the manufacturer or literature sources. See reference (numbers indicated under pump source column)

-- = not reported or not available