

COUMARIN 510

Synonym: 2,3,6,7-tetrahydro-10-(3-pyridinyl)-1H,5H,11H-[1]benzopyrano[6,7,8-ij]quinolizin-11-one

Catalog No.: 05100

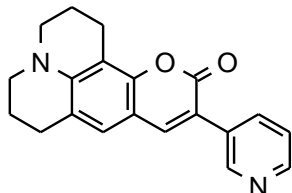
CAS No.: 87349-92-6

MW: 318.00

Chemical Formula: C₂₀H₁₈N₂O₂

Appearance: Yellow crystals

Structure:

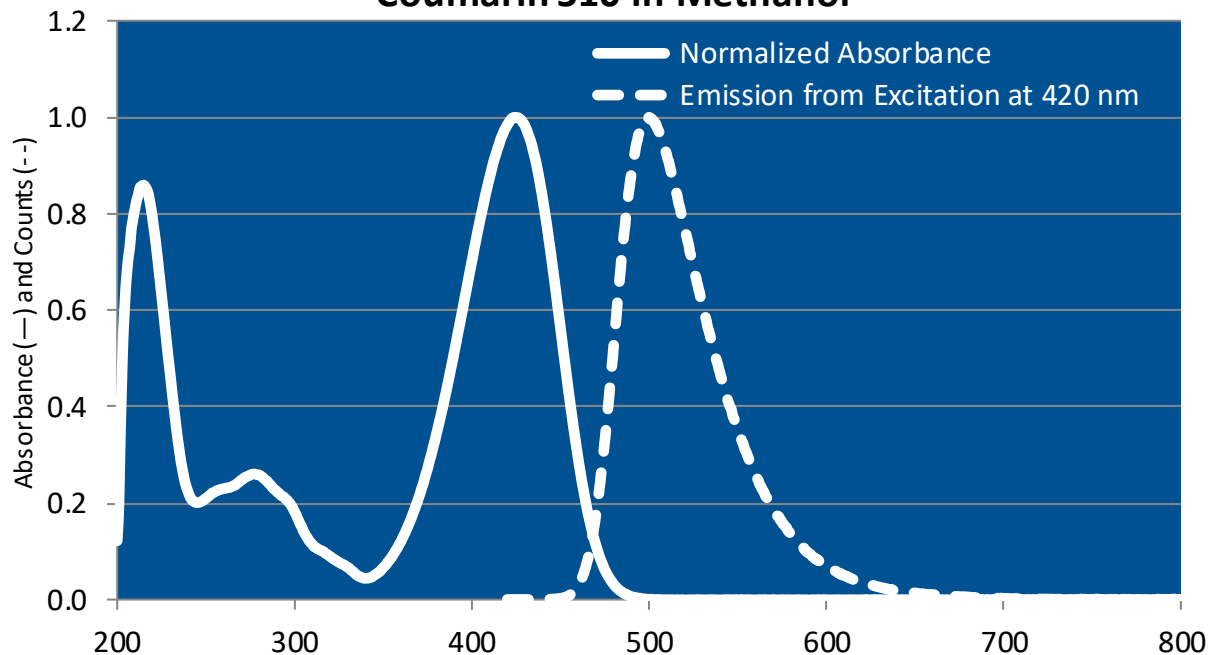


Lasing Wavelength

Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	Fl λ-max
511	504-518	FL(triaxial) ¹⁵⁷	Ethanol		425 ^e	496 ^e
520	513-527	FL(triaxial) ¹⁵⁷	EtOH/H ₂ O, 1/1			
510	495-538	XeCl(308) ¹⁵⁸	Methanol	2 x 10 ⁻³		
524	493-550	Ar(458 or 476, Ring, bb) ⁶⁸	BzOH/EG, 1/4	3.2 x 10 ⁻³		
530	493-552	Ar(458 or 476, Ring, SF) ⁶⁸	BzOH/EG, 1/4	3.2 x 10 ⁻³		

EtOH/H₂O=ethanol/water, BzOH=benzyl alcohol, EG=ethylene glycol, e=ethanol

Coumarin 510 in Methanol



The information presented above is believed to be accurate but is not a specification. The customer is fully responsible for determining the suitability of this product for use in their application. Exciton, Inc. does not represent that the information is sufficient or complete for any specific application.

Quantum Yields and Lifetimes

Absorbance (nm)	Emission (nm)	Quantum Yield (max = 1.0)	Solvent	Lifetime (ns)	References, Notes
425	496	0.85	Ethanol		C-6a
		0.94	Ethanol		C-6b
433	506	0.98	Ethanol/Water (50:50)		C-6a
		0.98	Ethanol/Water (50:50)		C-6b

REFERENCES:

68. Coherent Inc., 3210 Porter Dr., Palo Alto, CA 94304
157. Lasing and Fluorescent Characteristics of Nine, New, Flashlamp-Pumpable, Coumarin Dyes in Ethanol:Water, A.N. Fletcher, D.E. Bliss and J.M. Kauffman, *Optics Commun.*, 47(1), 57 (1983)
158. Lasing Characteristics of the New Dyes in Methanol, W. Young, Lumonics, 105 Schneider Rd., Kanata (Ottawa), Ontario, Canada K2K 1Y3
- C-6a. Lasing and Fluorescent Characteristics of Nine, New, Flashlamp Pumpable, Coumarin Dyes in Ethanol and Ethanol:Water, A.N. Fletcher, D.E. Bliss, and J.M. Kauffman, *Optics Commun.*, 47(1), 57 (1983), [https://doi.org/10.1016/0030-4018\(83\)90336-X](https://doi.org/10.1016/0030-4018(83)90336-X) **Note A:** Under air
- C-6b. Lasing and Fluorescent Characteristics of Nine, New, Flashlamp Pumpable, Coumarin Dyes in Ethanol and Ethanol:Water, A.N. Fletcher, D.E. Bliss, and J.M. Kauffman, *Optics Commun.*, 47(1), 57 (1983), [https://doi.org/10.1016/0030-4018\(83\)90336-X](https://doi.org/10.1016/0030-4018(83)90336-X) **Note B:** Under argon

For a current list of biology, biological stain, or biochemistry references for Coumarin 510 from PubMed, click on the following link:

[Coumarin 510](#)