

COUMARIN 523

Synonym: 2,3,6,7-tetrahydro-11-oxo-1H,5H,11H-[1]benzopyrano[6,7,8-ij]quinolizin-10-carbonitrile; Coumarin 337

Catalog No.: 05230

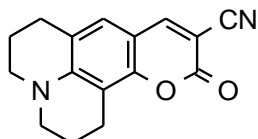
CAS No.: 55804-68-7

MW: 266.30

Chemical Formula: C₁₆H₁₄N₂O₂

Appearance: Orange crystals

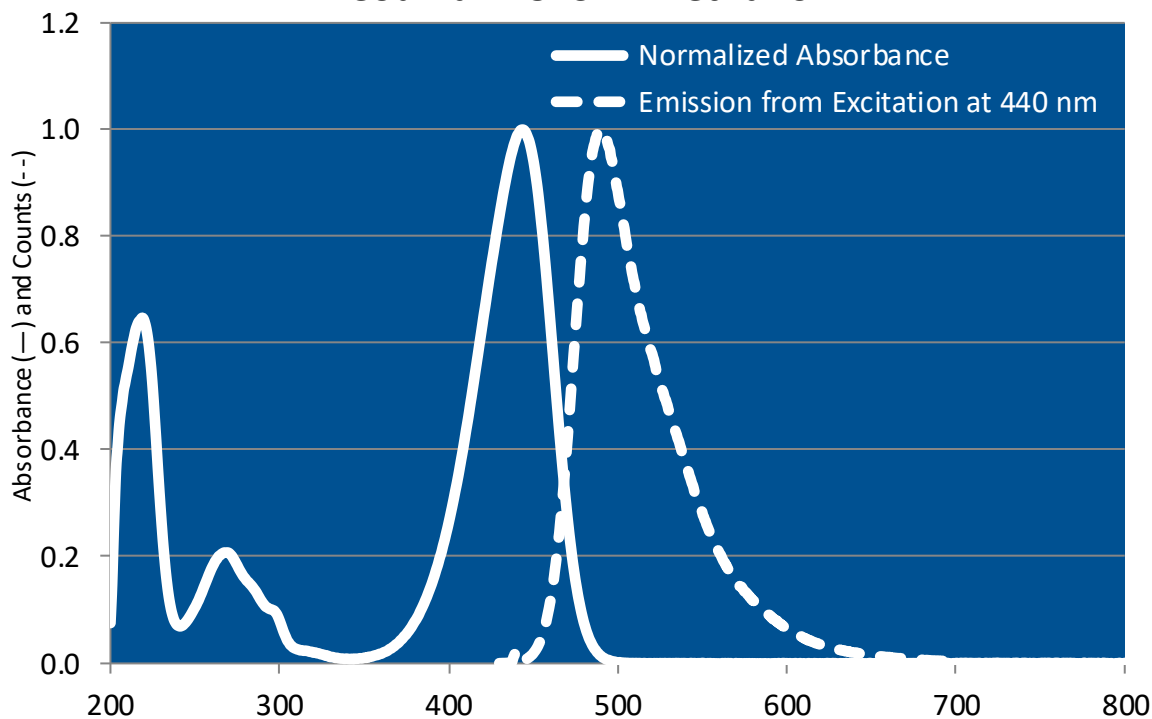
Structure:



Max. Lasing Wavelength (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	Fl λ-max
514	500-560	FL ⁶⁹	MeOH/H ₂ O	8 x 10 ⁻⁵	443 ^e	485 ^e
520	501-545	FL ⁶⁹	MeOH/H ₂ O, 1/1	1 x 10 ⁻⁴		
522		FL ¹⁹	Ethanol			

MeOH/H₂O=methanol/water, e=ethanol

Coumarin 523 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
437	490	0.829	Ethanol		C-11
437	492	0.784	Methanol		C-11
442	495	0.93	DMSO		C-11
437	490	1.104	DMF		C-11
422	450	0.816	Cyclohexane		C-11
452	500	0.438	Water		C-11

REFERENCES:

19. New Coumarin Dyes with Rigidized Structure for Flashlamp-Pumped Dye Lasers, G.A. Reynolds and K.H. Drexhage, *Optics Commun.*, 13(3), 222 (1975)
69. Candela Laser Corporation, 530 Boston Post Road, Wayland, MA 01778-1833
- C-11. Photophysics and Dynamics of Rigidized Coumarin Laser Dyes, M.S.A. Abdel-Mottaleb, M.S. Antonious, M.M. Abo-Aly, L.F.M. Ismaiel, B.A. El-Sayed and A.M.K., Sherief, J. of Photochem. And Photobiology, A:Chemistry 50, 259 (1989), [https://doi.org/10.1016/1010-6030\(89\)85020-8](https://doi.org/10.1016/1010-6030(89)85020-8)

For a current list of biology, biological stain, or biochemistry references for Coumarin 440 from PubMed, click on the following link:

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