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COUMARIN 515

Synonym: 7-(diethylamino)-3-(1-methyl-1H-benzimidazol-2-yl)-2H-1-benzopyran-2-one; Coumarin 30

Catalog No.: 05150

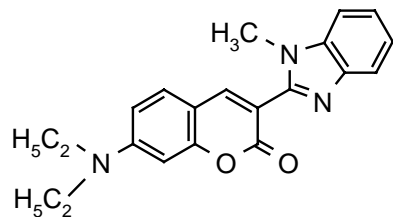
CAS No.: 41044-12-6

MW: 347.42

Chemical Formula: C₂₁H₂₁N₃O₂

Appearance: Yellow crystalline needles

Structure:



Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	Fl λ-max
505	495-515	Ar(cw,458) ¹³	20% aq.DPA + COT	1 x 10 ⁻³	413 ^e	478 ^m
510	492-550	Ar(458) ¹⁷	EG	1 x 10 ⁻³		
518	485-533	Ar(violet) ¹²³	EG/BzOH,5/1			
508	477-548	Kr(violet) ⁶⁸	MeOH/EG	80% pump absorption		
515	495-545	Kr(400-420) ¹⁷	EG			
517	482-538	Kr(406-415) ²⁰⁶	EG/BzOH,7/3	2.16 x 10 ⁻³ *		
	482-507	N ₂ -He(428) ⁴⁹	Ethanol	1 x 10 ⁻²		

* This represents a maximum value. Concentration should be adjusted to 80-85% absorption of the pump light.

DPA=N, N-dipropylacetamide, COT=cyclooctatetraene, EG=ethylene glycol, BzOH=benzyl alcohol, MeOH=methanol, e=ethanol, m=methanol

REFERENCES:

- CW Laser Emission from Coumarin Dyes in the Blue and Green, S.A. Tuccio, K.H. Drexhage and G.A. Reynolds, *Optics Commun.*, 7(3), 248 (1973)
- Spectra-Physics, 1250 W. Middlefield Road, Mountain View, CA 94039
- Dyes Pumped by the Nitrogen Ion Laser, C.B. Collins, K.N. Taylor, and F.W. Lee, *Optics Commun.*, 26(1), 101 (1978)
- Coherent Inc., 3210 Porter Dr., Palo Alto, CA 94304
- Powerful Single-Frequency Ring Dye Laser Spanning the Visible Spectrum, T.F. Johnston, Jr., R.H. Brady and W. Proffitt, *Appl. Optics*, 21(13), 2307 (1982)
- Coherent Inc., 3210 Porter Dr., Palo Alto, CA 94304; (599 Composite Tuning Curves, 1992; The concentration shown represents a maximum value. The final concentration should be adjusted to obtain 80-85% absorption of the pump light.)

For a current list of biology, biological stain, or biochemistry references for Coumarin 515 from PubMed, click on the following link:

[Coumarin 515 or Coumarin 30](#)