

## COUMARIN 535

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

**Catalog No.:** 05350

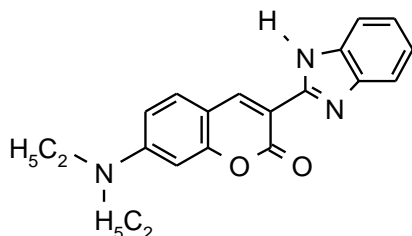
**CAS No.:** 27425-55-4

**MW:** 333.39

**Chemical Formula:** C<sub>20</sub>H<sub>19</sub>N<sub>3</sub>O<sub>2</sub>

**Appearance:** Yellow-orange crystals

**Structure:**

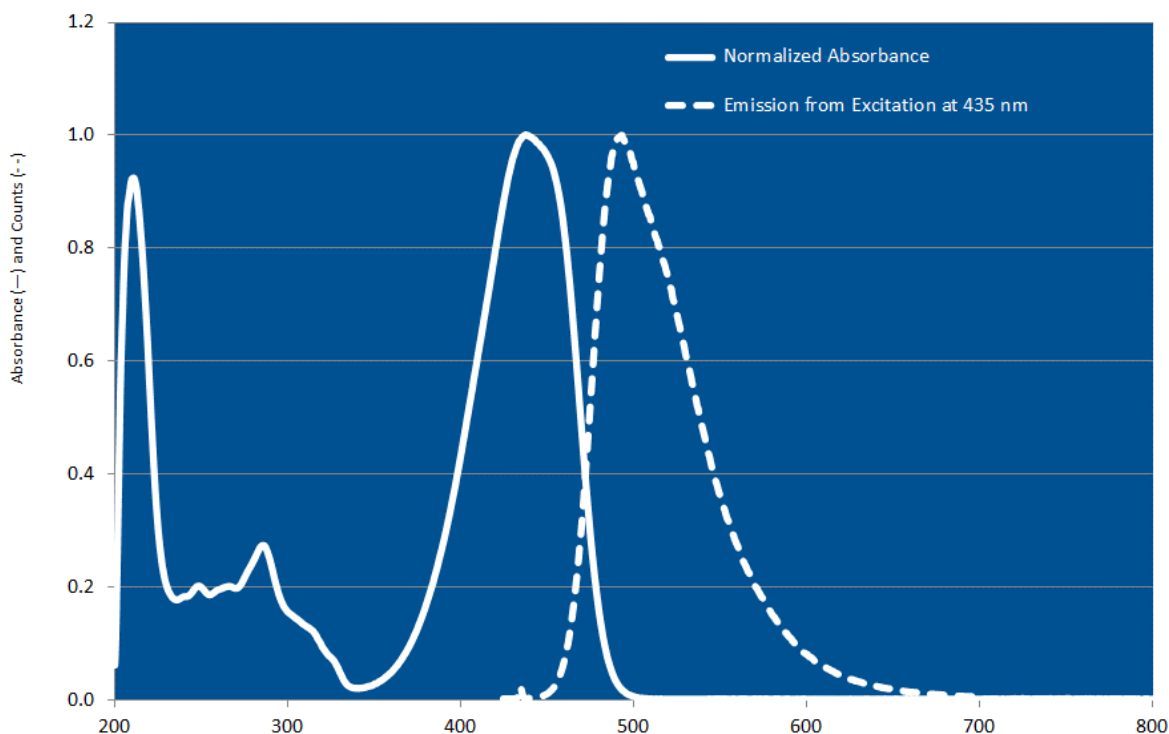


### Lasing Wavelength

Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	FI λ-max
525	500-575	Ar(cw,477) <sup>13</sup>	20%aq.DPA+LO,COT	4 x 10 <sup>-4</sup>	436 <sup>e</sup>	490 <sup>e</sup>
535	500-565	Ar(477) <sup>17</sup>	EG	5 x 10 <sup>-3</sup>		
535	505-565	Kr(400-420) <sup>17</sup>	EG			

DPA=N, N-dipropylacetamide, LO=Ammonyx LO, COT=cyclooctatetraene, EG=ethylene glycol, e=ethanol

**Coumarin 535 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
403	480	0.67	Acetonitrile	2.8	C-2b
419	485	0.35	50% ethanol	2.3	C-2b
436		0.87	Ethanol		C-5

#### REFERENCES:

13. 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)
17. Spectra-Physics, 1250 W. Middlefield Road, Mountain View, CA 94039
- C-2b. Solvent Effects on Emission Yield and Lifetime for Coumarin Laser Dyes, Requirements for a Rotatory Decay Mechanism, Guilford Jones II, W.R. Jackson, C-Y. Choi and W.R. Bergmark, *J. Phys. Chem.* 89(2), 294-300 (1985); <https://doi.org/10.1021/j100248a024> **Note B:** air saturated solution

For a current list of biology, biological stain, or biochemistry references for Coumarin 535 from PubMed, click on the following link:

[Coumarin 535 or Coumarin 7](#)