



PO Box 31126
Dayton, OH 45437
Tel: 937.252.2989 Fax: 937.258.3937
E-mail: info@exciton.com
www.exciton.com

COUMARIN 540A

Synonym: 2,3,6,7-tetrahydro-9-(trifluoromethyl)-1H,5H,11H-[1]benzopyrano[6,7,8-ij]quinolizin-11-one; Coumarin 153

Catalog No.: 05450

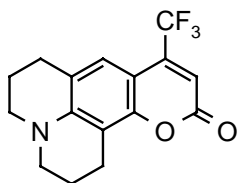
CAS No.: 53518-18-6

MW: 309.29

Chemical Formula: C₁₆H₁₄F₃NO₂

Appearance: Bright yellow crystals

Structure:



Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ -max	FI λ -max
536	517-576	FL ³	Ethanol	1 x 10 ⁻⁴	423 ^e	530 ^e
538		FL ²¹	Ethanol			455 ^{c82}
541	520-586	FL ³	Methanol	1 x 10 ⁻⁴		500 ^y
543		FL ²³	Ethanol			521 ⁿ
537	513-588	XeCl(308) ¹¹⁸	Ethanol	4 x 10 ⁻³ (osc)		531 ^e
542	516-608	XeCl(308) ²⁰⁴	Methanol	9 x 10 ⁻³ (osc), 9 x 10 ⁻³ (amp)		542 ^{e/w} 547 ^g
544	517-612	XeCl(308) ¹¹⁴	Methanol	8 x 10 ⁻³		
545	522-592	XeCl(308) ¹¹⁰	Methanol	3 x 10 ⁻³		
550	521-605	XeCl(308) ¹¹⁰	Methanol	2 x 10 ⁻³		
540	516-594	XeF(351) ¹⁵⁴	Ethanol	1 x 10 ⁻²		
540	516-590	Nd:YAG(355) ⁵³	Methanol			
543	523-586	Nd:YAG(355) ¹¹⁰	Methanol	3.5 x 10 ⁻³		
500	470-550	N ₂ (337) ¹⁸³	p-Dioxane	8.9 x 10 ⁻³		
504	-485-530-	N ₂ (337)	p-Dioxane			
505	480-560	N ₂ (337) ¹⁸³	p-Dioxane	55mg/20ml		
506	479-555	N ₂ (337) ¹¹⁴	p-Dioxane	1.3 x 10 ⁻³		
507		N ₂ (337) ⁴⁸	p-Dioxane			
536	515-583	N ₂ (337) ⁵	Ethanol	1 x 10 ⁻²		
542	508-627	N ₂ (337) ⁹⁰	Ethanol	1 x 10 ⁻²		
545	512-598	N ₂ (337) ¹¹⁴	Ethanol	1.5 x 10 ⁻³		
562	520-575	Ar(476) ⁵¹	EG/BzOH,11/1	4 x 10 ⁻³		

c = cyclohexane; e = ethanol; e/w = ethanol/water; g = glycerol; n = acetonitrile; y = ethyl acetate



PO Box 31126
Dayton, OH 45437
Tel: 937.252.2989 Fax: 937.258.3937
E-mail: info@exciton.com
www.exciton.com

COUMARIN 540A

REFERENCES:

3. Phase-R Corporation, Box G-2 Old Bay Rd., New Durham, NH 03855
5. Laser Photonics, Inc., 12351 Research Parkway, Orlando, FL 32826, formerly, Molelectron Corporation and Cooper LaserSonics, Inc.
21. Laser Performance and Stability of Fluorinated Coumarin Dyes, E.J. Schimitschek, J.A. Trias, P.R. Hammond and R.L. Atkins, *Optics Commun.*, 11(4), 352 (1974)
23. New Highly Efficient Laser Dyes, K.H. Drexhage and G.A. Reynolds, VII Int. Quantum Electronics Conf., Paper F. 1, San Francisco, CA., USA, 1974
48. Mixed Solvent Systems for Optimizing Output from a Pulsed Dye Laser, J.A. Halstead and R.R. Reeves, *Optics Commun.*, 27(2), 273 (1978)
51. J. Blazy, private commun., 1978
53. Continuum, 3150 Central Expressway, Santa Clara, CA 95051, formerly, Quantel International
82. Medium Effects on Fluorescence Quantum Yields and Lifetimes for Coumarin Laser Dyes, G. Jones II., W.R. Jackson and A.M. Halpern, *Chem. Phys. Lett.*, 72(2), 391 (1980)
90. Jobin Yvon, 16-18 rue du Canal B.P. 118, 91163 Longjumeau Cedex France
110. Lumonics Inc., 105 Schneider Road, Kanata, (Ottawa), Ontario, Canada K2K 1Y3
114. Optimization of Spectral Coverage in an Eight-Cell Oscillator-Amplifier Dye Laser Pumped at 308nm, F. Bos, *Appl. Optics*, 20, 3553 (1981)
118. The XeCl Excimer Laser: A Powerful and Efficient UV Pumping Source for Tunable Dye Lasers, H. Telle, W. Huffer and D. Basting, *Optics Commun.*, 38(5,6), 402 (1981)
154. Dye Laser Radiation in the 370-760nm Region Pumped by a XeF Excimer Laser, T.C. Eschrich and T.J. Morgan, *Applied Optics*, 24(7), 937 (1985)
183. Laser Science, Inc., 26 Landsdowne Street, Cambridge, MA 02139
204. Questek, Inc., 44 Manning Road, Billerica, MA 01821 (Tuning Curves for Model 5200B Dye Laser, PDL-3)

For a current list of biology, biological stain, or biochemistry references for Coumarin 540A from PubMed, click on the following link:

[Coumarin 540A or Coumarin 153](#)