



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

LD 700 PERCHLORATE

Synonym: 2,3,6,7,12,13,16,17-octahydro-9-(trifluoromethyl)-1H,5H, 11H,15H,-xantheno[2,3,4-ij:5,6,7-ij']diquinolizin-4-ium perchlorate; Rhodamine 700

Catalog No.: 07000

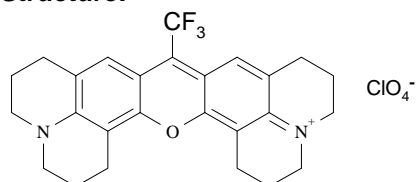
CAS No.: 63561-42-2

Chemical Formula: C₂₆H₂₆F₃N₂O.ClO₄

MW: 538.95

Appearance: Dark green crystals

Structure:



Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	FI λ-max
725	710-750	FL ³	Methanol	1 x 10 ⁻⁴	647 ^e	673 ^e
725	707-760	FL ¹¹⁷	MeOH/H ₂ O,7/3	7 x 10 ⁻⁵	652 ^e g	
734	716-754	FL ⁶⁹	Methanol	4.6 x 10 ⁻⁵	658 ^s	
762	730-818	FL ⁶⁹	DMSO	5.0 x 10 ⁻⁴		
720	696-753	XeCl(308) ¹¹⁰	Methanol	5 x 10 ⁻⁴		
727	693-797	XeCl(308) ²⁰⁴	DMSO	1 x 10 ⁻³ (osc), 7.5 x 10 ⁻⁴ (amp)		
690		Nd:YAG→R610(585) ⁶⁷	Alcohol			
708	692-742	Nd:YAG(532) ⁵³	Methanol			
735	705-775	Nd:YAG(532) ⁵	Ethanol	4 x 10 ⁻³ (osc), 1.5 x 10 ⁻⁴ (amp)		
706	692-752	N ₂ (337) ⁵⁰	Ethanol	9.3 x 10 ⁻⁴ (LD700), 5 x 10 ⁻³ (R640)		
720	698-758	N ₂ (337) ⁵⁰	Ethanol	1.5 x 10 ⁻³ (LD700), 4.4 x 10 ⁻³ (R640)		
702	690-800	Ar(514) ¹²⁴	EG/BzOH/MeOH,20/5/1	1.4 x 10 ⁻³ (DCM), 1.6 x 10 ⁻³ (LD700)		
730	703-805	Ar ¹²⁶	DMSO/BzOH/G,2/1/1	1.2 x 10 ⁻³ (LD700), 1.2 x 10 ⁻³ (DCM)		
700	675-725	Kr(647,676) ¹⁴⁹				
740	695-785	Kr(647-676) ²⁰⁶	EG	2.9 x 10 ^{-3*}		
740	700-810	Kr(Red) ¹²³	EG			
740	700-820	Kr(647,676) ⁶⁸	EG			
750	680-840	Kr(647,676) ¹⁴⁹				
775	763-844	Kr(Red) ¹²³	EG			
800	785-875	Kr(647,676) ¹⁴⁹				
742		HeNe(633,20mW) ¹⁷⁰	EG	7.3 x 10 ⁻⁴		
742	728-756	AlGaInP (laser diode, 670) ²⁰⁷	EG	1.76x10 ⁻³		
758		AlGaInP (laser diode, 670) ^{208a}	EG	1.76x10 ⁻³		

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



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

LD 700 PERCHLORATE

EG = Ethylene Glycol; DMSO = Dimethylsulfoxide; BzOH = Benzyl Alcohol; G = Glycerol; MeOH/H₂O = Methanol/Water; e = Ethanol;
eg = Ethylene Glycol; s = DMSO

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.
50. G. Holtom, private commun., 1978
53. Continuum, 3150 Central Expressway, Santa Clara, CA 95051, formerly, Quantel International
67. P. Drell, private commun., 1978
68. Coherent Inc., 3210 Porter Dr., Palo Alto, CA 94304
69. Candela Laser Corporation, 530 Boston Post Road, Wayland, MA 01778-1833
110. Lumonics Inc., 105 Schneider Road, Kanata, (Ottawa), Ontario, Canada K2K 1Y3
117. E. Rohlfing, private commun., 1981
123. 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)
124. Near-Infrared Picosecond Pulse Generation in a CW Mode-Locked Dye Laser Pumped Directly by an Argon Ion Laser, R.K. Jain, *Appl. Phys. Lett.*, 40, 295 (1982)
126. Energy Transfer Dye Mixture for Argon-Pumped Dye Laser Operation in the 700 to 800nm Region, E.G. Marason, *Optics Commun.*, 40(3), 212 (1982)
149. Infrared Dye Laser in the 685-880nm Range, G.D. Aumiller, *Applied Optics*, 23(5), 651 (1984)
170. Countinous Wave Dye Laser Pumped by a HeNe Laser, E. Thiel, C. Zander and K. H. Drexhage, *Optics Commun.*, 60(6), 396 (1986)
204. Questek, Inc., 44 Manning Road, Billerica, MA 01821 (Tuning Curves for Model 5200B Dye Laser, PDL-3)
206. 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.)
207. Low-Threshold Dye Laser Pumped by Visible Laser Diodes, R. Scheps, *IEEE Photonics Tech. Lett.*, 5(10), 1156 (1993)
208. Near-IR Dye Laser for Diode-Pumped Operation, R. Scheps, *IEEE J. Quantum Electron.* 31(1), 126 (1995)

For a current list of biology, biological stain, or biochemistry references for LD 700 Perchlorate from PubMed, click on the following link:

[LD 700 or Rhodamine 700](#)