



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

NILE BLUE 690 PERCHLORATE

Synonym: 5-amino-9-(diethylamino)-benzo[a]phenoxazin-7-ium perchlorate

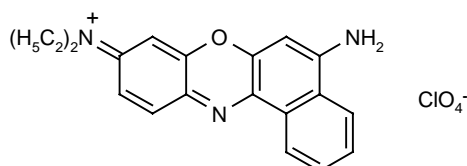
Catalog No.: 06900

CAS No.: 53340-16-2

Chemical Formula: C₂₀H₂₀N₃O.CIO₄ **MW:** 417.85

Appearance: Dark green crystals

Structure:



Max. Lasing Wavelength (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	Fl λ-max
705		FL ³	Methanol		624 ^e	660 ^m
717	689-750	FL ^{11a}	Methanol		628 ^e	
722		FL	Methanol			
678	656-719	XeCl(308) ¹¹⁰	Methanol	7 x 10 ⁻⁴		
710	696-740	XeCl(308) ¹¹⁴	Methanol	2.3 x 10 ⁻³		
698	680-723	XeF(351) ¹⁵⁴	Ethanol	8 x 10 ⁻⁴ (NB690)+ 3.8 x 10 ⁻³ (R610)		
681	662-710	Nd:YAG(532) ⁵⁸				
683		Nd:YAG→CV670(647) ³³	Methanol	2x10 ⁻⁴		
698	682-715	Nd:YAG(355) ¹⁰⁹	MeOH/H ₂ O,3/2	1.5 x 10 ⁻³ (NB690), 1.5 x 10 ⁻⁴ (R640)		
670	657-692	N ₂ (337) ¹¹¹	Ethanol	4 x 10 ⁻⁴ (NB690), 1.9 x 10 ⁻³ (R610)		
695	683-751	N ₂ (337) ¹¹⁴	Ethanol	1.1 x 10 ⁻³		
696	683-710	N ₂ (337) ⁵	Ethanol	3.8 x 10 ⁻³ (R610), 8 x 10 ⁻⁴ (NB690)		
729	688-783	N ₂ (337) ⁹⁰	Ethanol			
730	692-782	Kr(cw) ¹⁴	EG			
750	710-790	Kr(647) ¹⁷	EG	1 x 10 ⁻³		
695	682-730	Cu(511,578) ¹⁷⁵	Methanol	2 x 10 ⁻³		

EG = Ethylene glycol; MeOH/H₂O = Methanol/water; e = ethanol; m = methanol



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

NILE BLUE 690 PERCHLORATE

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.
11. Lasing Characteristics of Seventeen Visible-Wavelength Dyes using a Coaxial-Flashlamp-Pumped Laser, J.B. Marling, J.H. Hawley, E.M. Liston and W.B. Grant, *Appl. Optics*, 13(10), 2317 (1974). **a.** With Rhodamine 6G
14. CW Laser Emission Spanning the Visible Spectrum, J.M. Yarborough, *Appl. Phys. Lett.*, 24(12), 629 (1974). **a.** With Rhodamine 6G
17. Spectra-Physics, 1250 W. Middlefield Road, Mountain View, CA 94039
33. A High-Power Dye Laser at 6700-7700 Å, K. Kato, *Optics Commun.*, 19(1), 18 (1976)
58. J.K. Lasers Ltd., Somers Road, Rugby, Warwickshire, U. K
90. Jobin Yvon, 16-18 rue du Canal B.P. 118, 91163 Longjumeau Cedex France
109. Tuning Ranges of 355 nm Pumped Dyes from 410-715 nm, D.M. Guthals and J.W. Nibler, *Optics Commun.*, 29(3), 322 (1979)
110. Lumonics Inc., 105 Schneider Road, Kanata, (Ottawa), Ontario, Canada K2K 1Y3
111. Lasing Properties of Several Near-IR Dyes for a Nitrogen Laser-Pumped Dye Laser with an Optical Amplifier, B.M. Pierce and R.R. Birge, *IEEE J. Quantum Electron.*, QE18, 1164 (1982)
114. Optimization of Spectral Coverage in an Eight-Cell Oscillator-Amplifier Dye Laser Pumped at 308nm, F. Bos, *Appl. Optics*, 20, 3553 (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)
175. CVL-Pumped Dye Laser For Spectroscopic Application, M. Broyer, J. Chevalyere, G. Delacretaz and L. Wöste, *App. Phys. B*, 35, 31 (1984)

For a current list of biology, biological stain, or biochemistry references for Nile Blue 690 Perchlorate from PubMed, click on the following link:

[Nile Blue 690](#)