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DPS

Synonym: 4,4''-(1,2-ethenediyil)bis-1,1'-biphenyl

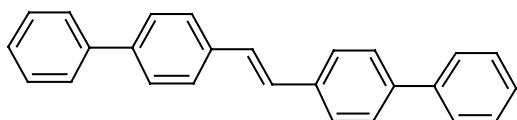
Catalog No.: 04060

CAS No.: 2039-68-1

Chemical Formula: C₂₆H₂₀ **MW:** 332.45

Appearance: White crystalline solid

Structure:



Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ -max	Fl λ -max
409		FL ²	DMF	0.66 of saturation	341bz	408bz
	406-411	FL ⁸	DMF			
406	393-423	XeCl(308) ²⁰⁴	p-Dioxane	4.3 x 10 ⁻⁴ (osc), 4.3 x 10 ⁻⁴ (amp)		
406	397-414	XeCl(308) ¹¹⁰	p-Dioxane	1 x 10 ⁻³		
406		XeCl(308) ¹¹²	p-Dioxane	saturated		
407	393-419	XeCl(308) ¹¹⁸	p-Dioxane	7 x 10 ⁻⁴ (osc)		
407	397-417	XeCl(308) ¹¹⁴	p-Dioxane	6 x 10 ⁻⁴		
406	398-412	XeF(351) ¹⁵⁴	p-Dioxane	1.2 x 10 ⁻³		
405	397-415	Nd:YAG(355) ¹⁵⁵	p-Dioxane	2 x 10 ⁻³ (osc), 1 x 10 ⁻³ (amp)		
405	383-417	N ₂ (337) ¹¹⁴	p-Dioxane	3 x 10 ⁻³		
406	396-416	N ₂ (337) ⁵	p-Dioxane			
406	396-416	N ₂ (337) ¹⁸³	p-Dioxane	12mg/20ml		

DMF=dimethylformamide, bz = benzene

REFERENCES:

2. Ultraviolet Organic Liquid Lasers, H.W. Furumoto and H.L. Ceccon, *IEEE J. Quantum Electron.*, QE6, 262 (1970)
5. Laser Photonics, Inc., 12351 Research Parkway, Orlando, FL 32826, formerly, Molelectron Corporation and Cooper LaserSonics, Inc.
8. Near-Ultraviolet Lasing Dyes, Part 1: Search for New Dyes and Summation of Results, P.R. Hammond, A.N. Fletcher, R.A. Henry, R.L. Atkins and D.W. Moore; and Near-Ultraviolet Lasing Dyes, Part 2: Effects of Coaxial Flashlamp Excitation, A.N. Fletcher, *NWC TP* 5768 (1975); Laser Dye Stability, Part 3: Bicyclic Dyes in Ethanol, A.N. Fletcher, *Appl. Phys.*, 14, 295 (1977); Laser Dye Stability, Part 5: Effect of Chemical Substituents of Bicyclic Dyes Upon Photodegradation Parameters, A.N. Fletcher and D.E. Bliss, *Appl. Phys.*, 16, 289 (1978)
110. Lumonics Inc., 105 Schneider Road, Kanata, (Ottawa), Ontario, Canada K2K 1Y3
112. Efficient Dye Lasers Pumped by an XeCl Excimer Laser, O. Uchino, T. Mizunami, M. Maeda and Y. Miyazoe, *Appl. Phys.*, 19, 35 (1979)



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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)
155. Tripled Nd:YAG Pumped DPS, P.H. Taylor, private commun., 1984. DPS is dissolved in p-dioxane at 2mM in the oscillator and diluted by a factor of two for the amplifier. Output at 405nm, 350uj with 25mj pump energy
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 DPS from PubMed, click on the following link:

[DPS](#) (consider combining with keyword "dye" to limit search results)