

TMQ

Synonym: 2,2',5,5'-tetramethyl-1,1':4,4'':4'',1'''-quaterphenyl

Catalog No.: 03500

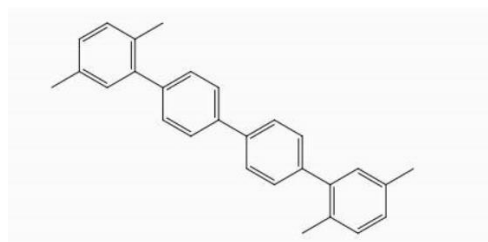
CAS No.: 4575-13-7

MW: 362.52

Chemical Formula: C₂₈H₂₆

Appearance: White crystalline powder

Structure:



Lasing Wavelength

Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	FI λ-max
354	343-365	XeCl(308) ¹¹⁰	p-Dioxane	2 x 10 ⁻³	266 ^c	350 ^c
356	344-366	XeCl(308) ¹¹⁰	p-Dioxane	4 x 10 ⁻³		
350	338-361	Nd:YAG(266) ⁸¹	Cyclohexane	2 x 10 ⁻³		

c = cyclohexane, e = ethanol, p-d = p-dioxane

Quantum Yields and Lifetimes

Absorbance (nm)	Emission (nm)	Quantum Yield (max = 1.0)	Solvent	Lifetime (ns)	References, Notes
266	353	0.76	p-Dioxane	0.78	C-12

REFERENCES:

81. Tuning Ranges of 266 nm Pumped Dyes in the Near UV, L.D. Ziegler and B.S. Hudson, *Optics Commun.*, 32(1), 119 (1980)
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242. Photophysical Properties and Laser Performance of Photostable UV Laser Dyes. III. Sterically Hindered p-Quaterphenyls, H. Güsten, M. Rinke, and H.O. Wirth, *Appl. Phys. B45*, 279 (1988)
- C-12. Photophysical Properties and Laser Performance of Photostable UV Laser Dyes. III. Sterically Hindered p-Quaterphenyls, H. Güsten, M. Rinke, and H.O. Wirth, *Appl. Phys. B45*, 279 (1988), <https://doi.org/10.1007/BF00687157>

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

[TMQ](#) (zero references in PubMed under this name as of May 2006)