



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

## DMOTC

**Synonym:** 3-methyl-2-[7-(3-methyl-2(3H)-benzoxazolylidene)-1,3,5-heptatrienyl]-benzoxazolium iodide;  
3,3'-Dimethyloxatricarbocyanine Iodide; Methyl-DOTCI

**Catalog No.:** 22035

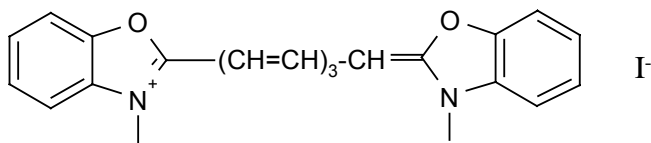
**CAS No.:** Not Available

**MW:** 484.34

**Chemical Formula:** C<sub>23</sub>H<sub>21</sub>N<sub>2</sub>O<sub>2</sub>I

**Appearance:** Blue solid

**Structure:**



Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs $\lambda$ -max	Fl $\lambda$ -max
792	774-810	XeCl(308) <sup>118,243,252</sup>	DMSO	1.86 x 10 <sup>-3</sup>	682 <sup>e</sup>	718 <sup>e</sup>
780	----	Nd:YAG(532) <sup>116</sup>	DMSO			
810	----	FL <sup>253</sup>	DMSO*	1.5 x 10 <sup>-4</sup>		
780	768-820	N <sub>2</sub> (337) <sup>243,252</sup>	DMSO	1.05 x 10 <sup>-3</sup>		
	745-790	Kr(cw) <sup>14</sup>	EG	2.99 x 10 <sup>-3</sup>		

e = ethanol; EG = ethylene glycol

\* deoxygenated

### REFERENCES:

14. CW Laser Emission Spanning the Visible Spectrum, J.M. Yarborough, *Appl. Phys. Lett.*, 24(12), 629 (1974). a. With Rhodamine 6G
116. Versatile High-Power Single-Longitudinal-Mode Pulsed Dye Laser, F. Bos, *Appl. Optics*, 20(10), 1886 (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)
243. *Lambdachrome Laser Dyes*, U. Brackmann, 2<sup>nd</sup> ed., 1994
252. Optimization of Spectral Coverage in an Eight-Cell Oscillator-Amplifier Dye Laser Pumped at 308nm, F. Bos, *Appl. Opt.* 20(20), 3553 (1981)
253. Laser Å Colorant Å 810 nm Emettant 0,1 J EN 1 µsec, C. Loth and P. Flamant, *Opt. Commun.* 21(1), 13 (1977)

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

[DMOTC or Methyl-DOTCI](#)