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IR 143

Synonym: 2-[2-[2-(diphenylamino)-3-[(1-ethylnaphtho[1,2-d]thiazol-2(H)-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1-ethyl-naphtho[1,2-d]thiazolium perchlorate

Catalog No.: 09200

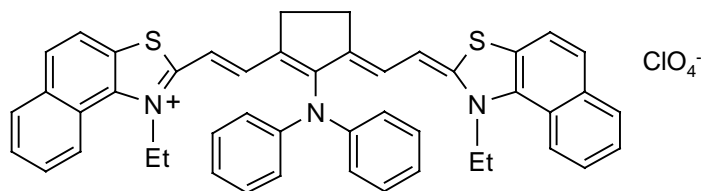
CAS No.: 54849-65-9

Chemical Formula: C₄₇H₄₀N₃S₂·ClO₄

MW: 810.42

Appearance: Red brown crystalline powder

Structure:



Lasing Wavelength

Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max
972		FL ⁹⁹			839 ^m
960	913-1020	Kr(752, 799) ⁹⁸	DMSO/EG	9.9 x 10 ⁻⁴	849 ^{pc}
976	894-1095	Kr(752, sync, m-l) ¹⁰⁰	DMSO/EG: 1/2	9.9 x 10 ⁻⁴	864 ^s

DMSO = dimethylsulfoxide; EG = ethylene glycol; m = methanol; pc = propylene carbonate; s = dimethylsulfoxide

REFERENCES:

98. CW Dye Laser Emission Beyond 1000 nm, M. Leduc and C. Weisbuch, *Optics Commun.*, 26(1), 78 (1978); Pump CR3000K with 2 watt at 752 and 799nm to jet stream dye laser (CR599-01). Threshold for IR 143 – 550mW.
99. Sixteen New Infrared Laser Dyes Excited by a Simple, Linear Flashlamp, J.P. Webb, F.G. Webster and B.E. Plourde, *IEEE J. Quantum Electron.*, QE11, 114 (1975); Eastman Organic Bulletin 46(3), 1(1974)
100. Synchronous Pumping of Dye Lasers up to 1095 nm, M. Leduc, *Optics Commun.*, 31(1), 66 (1979); output ~50mW with 0.5W mode-locked Kr+ laser (752nm line). Transmission of the output coupler of the dye laser: 1%.

For a current list of biology, biological stain, or biochemistry references for IR 143 from PubMed, click on the following link:

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