

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

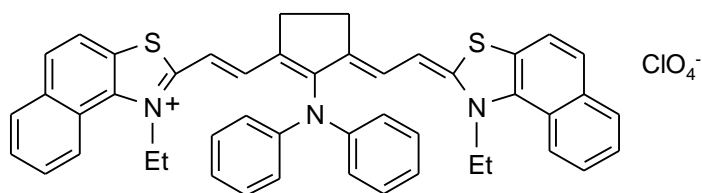
CAS No.: 54849-65-9

Chemical Formula: C₄₇H₄₀N₃S₂.ClO₄

MW: 810.42

Appearance: Red brown crystalline powder

Structure:

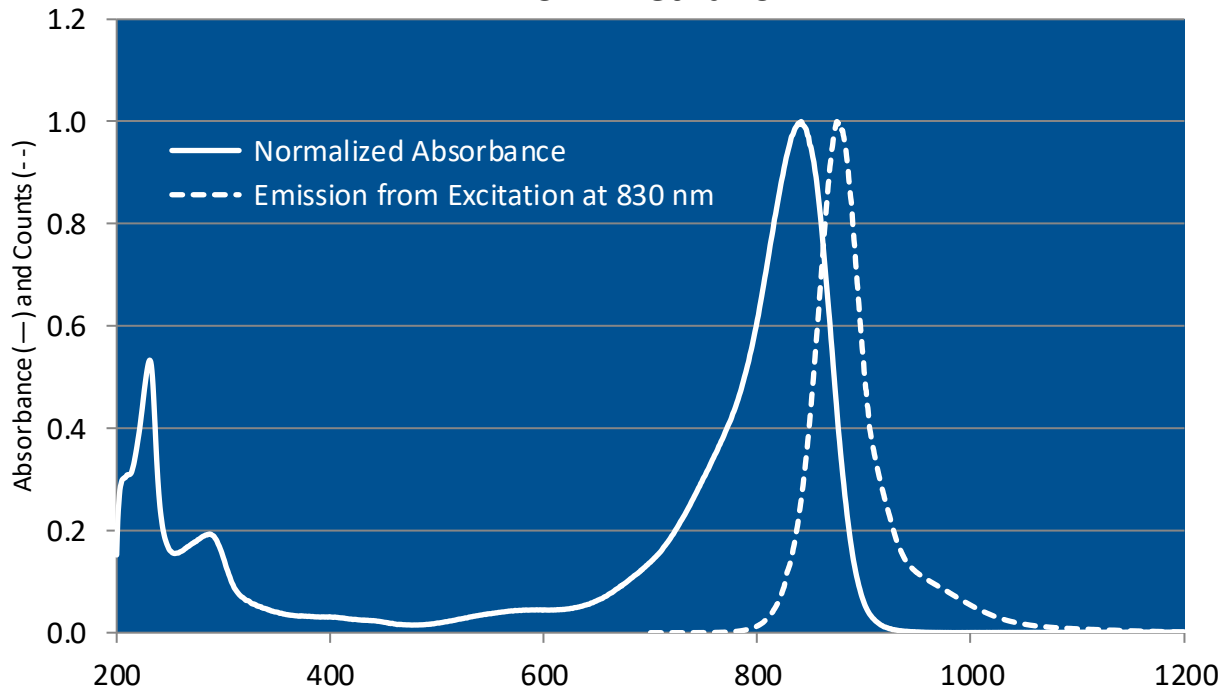


Lasing Wavelength

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-) ¹⁰⁰	DMSO/EG: 1/2	9.9 x 10 ⁻⁴	864 ^s

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

IR 143 in Methanol





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The information presented above is believed to be accurate but is not a specification. The customer is fully responsible for determining the suitability of this product for use in their application. Exciton, Inc. does not represent that the information is sufficient or complete for any specific application.

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:

[IR 143](#)