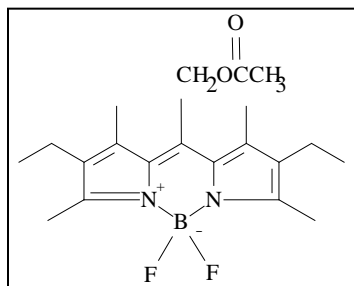


PYRROMETHENE 605



Chemical Name: 8-Acetoxymethyl-2,6-diethyl -1,3,5,7-tetramethyl pyrromethene fluoroborate

Chemical Formula: C₂₀H₂₇BF₂N₂O₂

MW: 376.25

CAS Registry Number: N/A

Synonyms:

Melting Point: 175-177(181-182°C)²¹⁸

Exciton Catalog No.: 06050

Spectral Information:

$\lambda_{\text{max,abs}} = 543\text{nm}$ (Ethanol)²¹⁸

$\log_{543} \epsilon = (4.89 \text{ liter mol}^{-1} \text{ cm}^{-1})$

$\lambda_{\text{max,fl}} = 565\text{nm}$ (Ethanol)

$\Phi_f = 0.74$ (Ethanol)

Selected Solubility Limits (g/l) (25°C):

λ_{abs} max:

Methanol	0.51	542.6
Ethanol	0.52	543.5 (71,200)
NMP	26.3	544 (dec.)
EPH	5.7	550.5
PPH	10.0	549.9
p-Dioxane	16.3	543.9

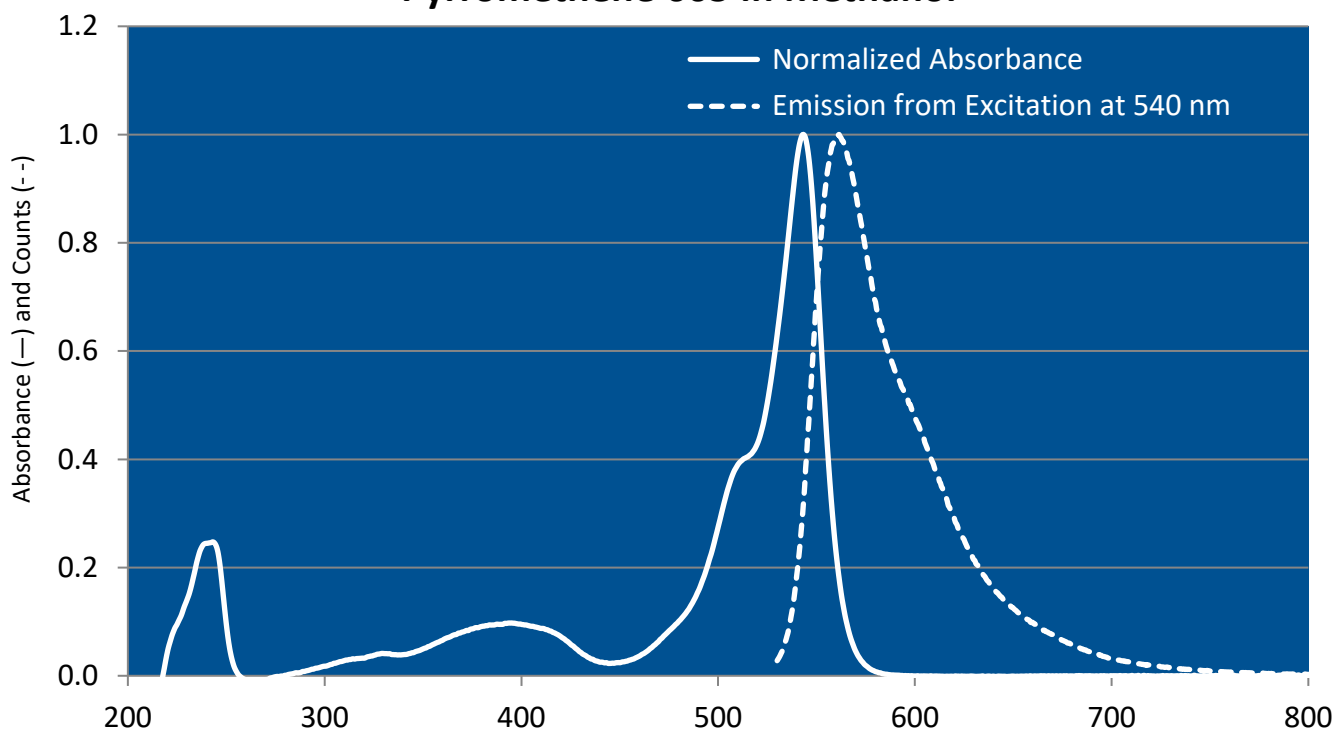
Lasing Wavelength

Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Conversion Efficiency	Stability (1/2- life)
605(bb)		FL ²¹⁸	Ethanol	2x10 ⁻⁴		
575		Nd:YAG(532) ²²⁸	HTP	1x10 ⁻⁴	70% ^s	-

*(FWHM); bb (broad band); s (slope efficiency)

EPH (2-Phenoxyethanol); HTP (High Temperature Plastic); NMP (N-Methyl-2-Pyrrolidinone); PPH (1-Phenoxy-2-propanol)

Pyromethene 605 in Methanol



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.

Quantum Yields and Lifetimes

Absorbance (nm)	Emission (nm)	Quantum Yield (max = 1.0)	Solvent	Lifetime (ns)	References, Notes
543	575	0.74	Ethanol		

REFERENCES:

218. Pyromethene-BF₂ Complexes as Laser Dyes: 2, J.H. Boyer, A.M. Haag, G. Sathyamoorthi, M.-L. Soong, and K. Thangaraj, *Heteroatom Chem.*, **4**(1), 39 (1993).
228. Spectroscopy and Laser Properties of Perylimide and New Pyromethene-BF₂ Dyes in a High Temperature Plastic, T.H. Allik, S. Chandra and T.R. Robinson, CLEO '95, poster paper Ctu158 (1995)

For a current list of biology, biological stain, or biochemistry references for Pyromethene 605 from PubMed, click on the following link:

[Pyromethene 605](#)