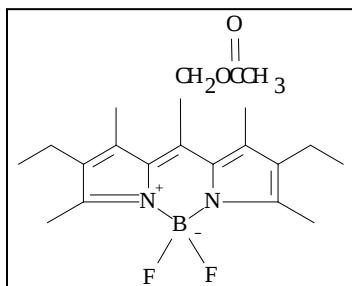




PO Box 31126
Dayton, OH 45437
Tel: 937.252.2989 Fax: 937.258.3937
E-mail: info@exciton.com
www.exciton.com

PYRROMETHENE 605



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

Chemical Formula: C₂₀H₂₇N₂O₂BF₂

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):

Methanol	0.51
Ethanol	0.52
NMP	26.3
EPH	5.7
PPH	10.0
p-Dioxane	16.3

λ_{abs} max:

542.6
543.5 (71,200)
544 (dec.)
550.5
549.9
543.9

REPORTED LASER PERFORMANCE DATA

Lasing Wavelength						
Max.	Range	Pump Source	Solvent	Concentration	Conversion	Stability
(nm)	(nm)	(nm)		(molar)	Efficiency	(1/2- life)
605(bb)		FL ²¹⁸	Ethanol	2×10^{-4}		
575		Nd:YAG(532) ²²⁸	HTP	1×10^{-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)

REFERENCES:

218. Pyrromethene-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 Pyrromethene-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 Pyrromethene 605 from PubMed, click on the following link:

[Pyrromethene 605](#)