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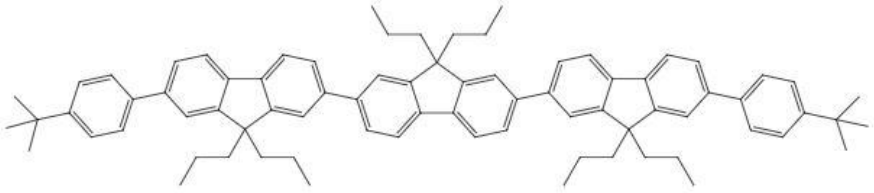
EXALITE 428

Synonym: 2,2′:7′,2″-Ter-9*H*-fluorene, 7,7″-bis[4-(1,1-dimethylethyl)phenyl]-9,9,9′,9′,9″,9″-hexapropyl-
Catalog No.: 04280
CAS No.: 188652-87-1 **MW:** 1011.51
Chemical Formula: $C_{77}H_{86}$
Appearance: White crystalline solid
Structure:



	Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	Fl λ-max

The Exalite dyes (Exalite 392A, Exalite 404, Exalite 411, Exalite 417 and Exalite 428) all have excellent operating lifetimes. The preferred solvent is p-Dioxane. Most of these dyes have very high absorption coefficients at 355nm, making them excellent candidates for pumping with the third harmonic of the Nd:YAG laser as well as under XeCl(308nm) pumping.

	428/412	408-439	XeCl(308)[177c]	p-Dioxane	8.8×10^{-4}	359.5[p]	401[c]
	426	415-436	Nd:YAG(355)[110]	p-Dioxane	~5.1×10^{-5}		424
and	406	399-415					
	426	416-434	Nd:YAG(355)[57]	p-Dioxane	2.4×10^{-4} (osc),		
and	406	400-416			0.4×10^{-4} (amp)		
	427	419-434	Nd:YAG(355)[239]	p-Dioxane	1.5×10^{-4}		
	430	411-444	Ar-ion[211]	NMP/EG(1:4)	1×10^{-3}		
	428	350-460	N_2(337)[183]	p-Dioxane	13.3mg/20ml		

NMP/EG = N-methyl-2-pyrrolidinone/ethylene glycol; c = cyclohexane; p = p-dioxane

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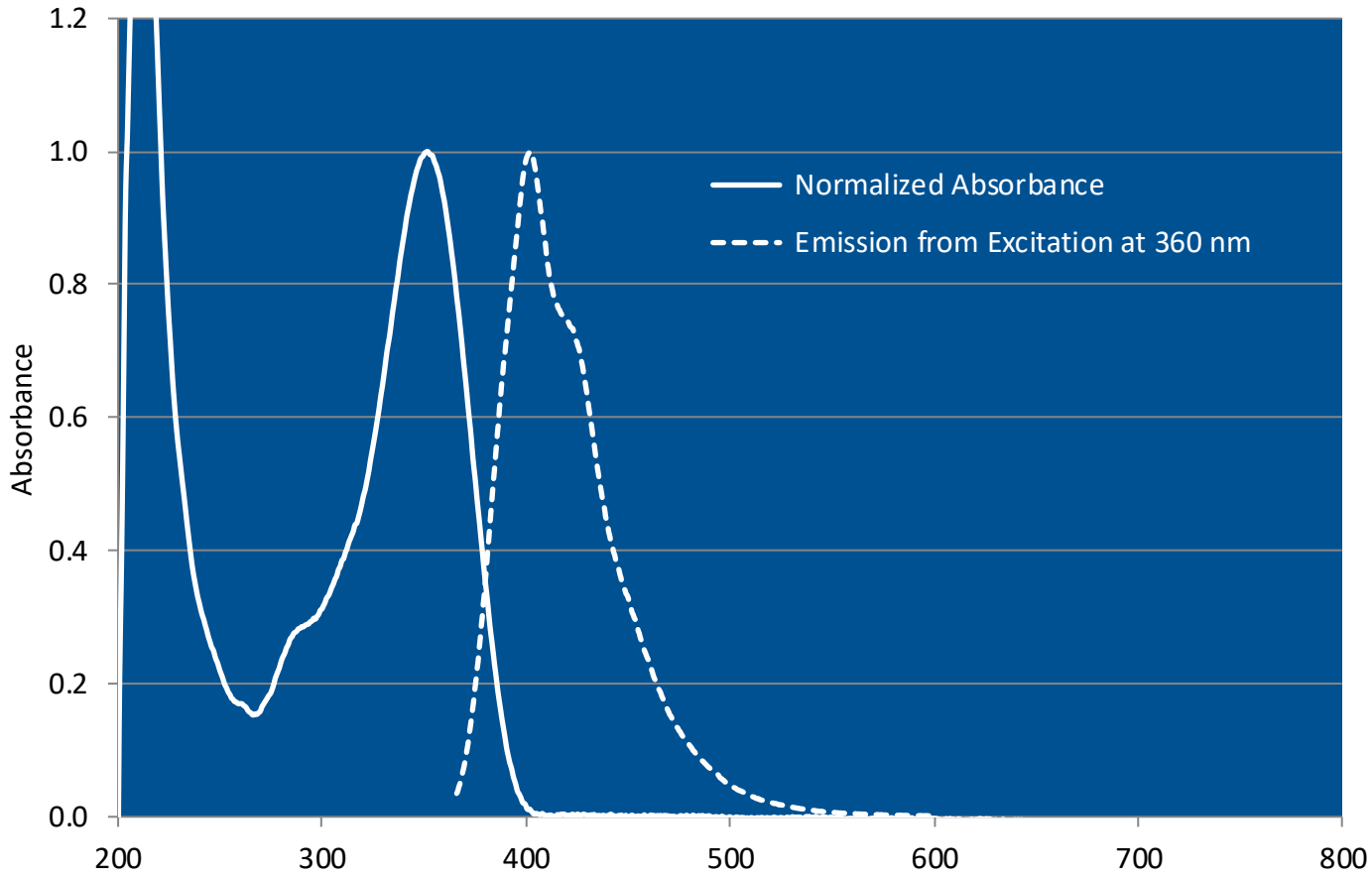
Exalite 428 ABS+EMS in Methanol



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.

REFERENCES:

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110. Lumonics Inc., 105 Schneider Road, Kanata, (Ottawa), Ontario, Canada K2K 1Y3

177. Exciton and Associates, unpublished data, 1987-1989;
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b. Characterization of New Excimer Pumped UV Laser Dyes 2. p-Quaterphenyls, P.A. Fleitz, C.J. Seliskar, R.N. Steppel, J.M. Kauffman, C.J. Kelley and A. Ghiorghis, *Laser Chem.*, 11, 99 (1991);

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211. R. Schelten, private commun., 1993 (with BRF, Stilbene 420 optics, Coherent 699, conversion efficiency ~10%)