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Rhodamine 610

Synonym: N-[9-(2-carboxyphenyl)-6-(diethylamino)-3H-xanthen-3-ylidene]-N-ethyl-ethanaminium chloride or perchlorate; Rhodamine B

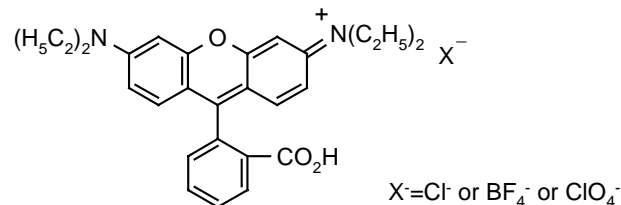
Catalog No.: 06101 (chloride); 06102 (perchlorate); 06103 (tetrafluoroborate)

CAS No.: 81-88-9 (06101); 23857-51-4 (06102); N/A (06103) **MW:** 479.02 (06101); 543.02(06102); 530.38 (06103)

Chemical Formula: C₂₈H₃₁N₂O₃.Cl (06101); C₂₈H₃₁N₂O₃.ClO₄ (06102); C₂₈H₃₁N₂O₃.BF₄ (06103)

Appearance: Green crystals or reddish-violet powder (06101); Green crystals (06102)

Structure:



Max. Lasing Wavelength (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	FI λ-max
613	596-645	FL ³	Methanol	8 x 10 ⁻⁵	552 ^e	588 ^e
617	598-647	FL ²⁹	Ethanol		554(a) ^e	580(a) ^e
620		FL ⁶²	Methanol	2 x 10 ⁻⁴ (KR620) + (R590)	544 ^m	
620	595-650	FL ⁶⁹	Methanol	4 x 10 ⁻⁵		
621	608-634	FL ⁶⁹	Methanol + COT			
623	598-649	FL ³	Ethanol + COT	3 x 10 ⁻⁵		
600	588-644	XeCl(308) ¹¹⁴	Methanol	1.9 x 10 ⁻³		
602	593-638	XeCl(308) ¹¹⁰	Methanol	8 x 10 ⁻⁴		
604	590-640	XeCl(308) ²⁰⁴	Methanol	1.25 x 10 ⁻³ (osc), 1.07 x 10 ⁻³ (amp)		
625	594-639	XeCl(308) ¹¹⁰	Ethanol	1.5 x 10 ⁻³		
612	596-638	XeF(351) ¹⁵⁴	Ethanol	5 x 10 ⁻³		
579	567-599	Nd:YAG(532) ⁵³	Methanol	30.6mg/l(R610)+ 69mg/l(R590)(osc); 12.4mg/l(R610)+ 34mg/l(R590)(amp)		
579	570-596	Nd:YAG(532) ⁵⁵				
580	560-596	Nd:YAG(532) ⁵	Ethanol	3.5 x 10 ⁻⁴ (R590), 5 x 10 ⁻⁵ (R610)(osc); 3.8 x 10 ⁻⁵ (KR620)(amp)		
582	576-600	Nd:YAG(532) ⁵⁷	Methanol	2.1 x 10 ⁻⁴ (osc), 3.1 x 10 ⁻⁵ (amp)		
584	576-612	Nd:YAG(532) ⁵	EtOH/H ₂ O,2/1	6.7 x 10 ⁻⁴ (R610), 3.3 x 10 ⁻³ (DSS)(osc), 3.8 x 10 ⁻⁵ (KR620)(amp)		
587	579-601	Nd:YAG(532) ⁵⁴	Methanol	3 x 10 ⁻⁴		
590	578-610	Nd:YAG(532) ⁵⁸				
591	581-607	Nd:YAG(532) ⁵³	Methanol	107mg/l(osc), 37.4mg/l(amp)		



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Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ -max	FI λ -max
592	579-606	Nd:YAG(532) ¹¹⁰	Methanol	1×10^{-4}		
596	588-614	Nd:YAG(532) ²³⁹	Ethanol	4.2×10^{-4}		
600	588-632	Nd:YAG(355) ¹¹⁰	Methanol	5×10^{-4}		
600	588-632	Nd:YAG(355) ²³⁹	Ethanol	7.3×10^{-4}		
602	584-632	Nd:YAG(532) ⁵	Ethanol	1×10^{-3} (R610)(osc), 3.8×10^{-5} (R640)(amp)		
595	588-614	N ₂ (337) ¹²²		+C540A		
607	593-646	N ₂ (337) ¹¹⁴	Ethanol	3.7×10^{-3}		
609	594-643	N ₂ (337) ⁵	Ethanol	5×10^{-3}		
625	605-650	N ₂ (337) ¹⁸³	Methanol	48mg/20ml		
630	601-675	Ar(458-514) ¹⁷	EG	2×10^{-3}		
637	608-682	Ar(cw) ¹⁴	EG			
591	-582-618-	Cu(511,578) ²⁸	TFE(basic)	1.3×10^{-3}		

EG = Ethylene Glycol, TFE = Trifluoroethanol, EtOH = ethanol, H₂O = water, e = ethanol, m = methanol; COT = cyclooctatetraene

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