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RHODAMINE 640 PERCHLORATE

Synonym: 9-(2-carboxyphenyl)-2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H,-xantheno[2,3,4-ij:5,6,7-ij']-diquinolizin-4-ium perchlorate; Rhodamine 101

Catalog No.: 06400

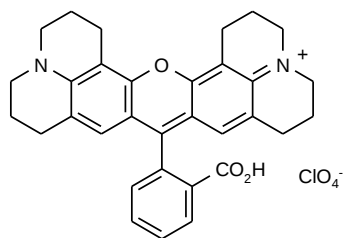
CAS No.: 72102-91-1

MW: 591.05

Chemical Formula: C₃₂H₃₁N₂O₃.ClO₄

Appearance: Dark green crystals with bronze sheen

Structure:



Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ-max	FI λ-max
630		FL ²⁷	Ethanol(basic)		575(a) ^m	594 ^m
635	610-670	FL ⁶⁹	Methanol	4 x 10 ⁻⁵		
640		FL ²⁷	Ethanol(acidic)			
642	627-657	FL ⁶⁹	Methanol			
643	623-657	FL ³	Ethanol	1 x 10 ⁻⁴		
650		FL ⁶³	Methanol	1.2 x 10 ⁻⁴		
652	620-687	FL ¹²	MeOH/H ₂ O,3/2	1.1 x 10 ⁻⁴		
618	608-668	XeCl(308) ¹¹⁴	Ethanol	1.3 x 10 ⁻³		
623	613-672	XeCl(308) ¹¹⁸	Ethanol	1.2 x 10 ⁻³ (osc)		
625	610-673	XeCl(308) ²⁰⁴	Methanol	1.25 x 10 ⁻³ (osc), 7 x 10 ⁻⁴ (amp)		
602	589-623	Nd:YAG(532) ⁵⁵				
603	598-626	Nd:YAG(532) ⁵⁷	Methanol	2.4 x 10 ⁻⁴ (osc), 3.2 x 10 ⁻⁵ (amp)		
605	594-629	Nd:YAG(532) ⁵³	Methanol	R640(3.6x10 ⁻⁵) + R610(7.9x10 ⁻⁵)(osc), R640(1.8x10 ⁻⁵) + R610(3.9x10 ⁻⁵)(amp)		
611		Nd:YAG(532) ⁵⁴	Methanol	5 x 10 ⁻⁴		
612	598-640	Nd:YAG(532) ⁵⁸				
613	605-630	Nd:YAG(532) ⁵³	Methanol	3.6 x 10 ⁻⁴ (osc), 1.9 x 10 ⁻⁴ (amp)		
619	607-640	Nd:YAG(532) ¹¹⁰	Methanol	2.5 x 10 ⁻⁴		
620	608-668	Nd:YAG(532) ¹¹⁶	Ethanol	5 x 10 ⁻⁴		
624	614-662	Nd:YAG(532) ²³⁹	Ethanol	4.2 x 10 ⁻⁴		
630	621-674	Nd:YAG(355) ²³⁹	Ethanol	8.5 x 10 ⁻⁴		
650	620-680	Nd:YAG(355) ¹⁰⁹	MeOH/H ₂ O,3/2	3.5 x 10 ⁻³		
640	620-680	N ₂ (337) ³⁰	Ethanol	5 x 10 ⁻³		
644	620-673	N ₂ (337) ⁵⁰	Ethanol	5.7 x 10 ⁻³		
652	620-678	N ₂ (337) ¹¹⁴	Ethanol	5.1 x 10 ⁻³		
653	625-680	N ₂ (337) ¹⁸³	Methanol	60mg/20ml		



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Lasing Wavelength Max. (nm)	Range (nm)	Pump Source (nm)	Solvent	Concentration (molar)	Abs λ -max	Fl λ -max
659	626-700	N ₂ (337) ⁹⁰	Ethanol	5 x 10 ⁻³		
671	634-704	N ₂ (337) ⁷³	DMSO + HCl			
645	620-690	Ar(458-514) ¹⁷	EG	1.5 x 10 ⁻³ (R640), 1.5 x 10 ⁻³ (R590)		
648	608-710	Ar or Kr(568) ⁶⁸	MeOH/EG, 1/7.5	80% pump absorption		
652	624-675	Ar(vis) ⁸⁷	EG	2 x 10 ⁻³ (R640), 1 x 10 ⁻³ (R590)		
616	605-633	Cu(511,578) ¹⁵³	Methanol	1 x 10 ⁻³		
630	607-659	Cu(511,578) ¹⁷⁵	Methanol			

DMSO = Dimethylsulfoxide; EG = Ethylene glycol; HCl = Hydrochloric acid; MeOH/H₂O = Methanol/water; m = methanol

REFERENCES:

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- Spectra-Physics, 1250 W. Middlefield Road, Mountain View, CA 94039
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For a current list of biology, biological stain, or biochemistry references for Rhodamine 640 from PubMed, click on the following link:

[Rhodamine 640 or Rhodamine 101](#) (all references are listed under Rhodamine 101 in PubMed as of May 2006)