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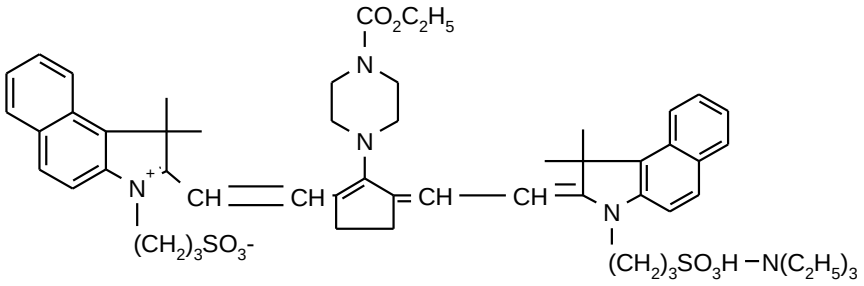
# IR 144

**Synonym:** 2-[2-[3-[[1,3-dihydro-1,1-dimethyl-3-(3-sulfopropyl)-2H-benz[e]indol-2-ylidene]ethylidene]-2-[4-(ethoxycarbonyl)-
1-piperazinyl]-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-(3-sulforpropyl)-1H-benz[e]indolium hydroxide, inner salt, compound with n,n-diethylethanamine(1:1)
**Catalog No.:** 08690
**CAS No.:** 54849-69-3
**Chemical Formula:** $C_{50}H_{58}N_4O_8S_2.C_6H_{15}N$ **MW:** 1008.36
**Appearance:** Dark maroon crystalline powder
**Structure:**




| Lasing Wavelength Max. (nm) | Range (nm) | Pump Source (nm) | Solvent | Concentration (molar) | Abs λ-max | Fl λ-max |
|---|---|---|---|---|---|---|
| | 800-870<br>825[s] | FL→R640(660)[3] | EG | $1 \times 10^{-4}$ | 752[e] | |
| 880/949 | | FL[99] | DMSO | $1 \times 10^{-4}$ | 745[s] | |
| 861 | 846-883 | XeCl(308)[114] | DMF | $5 \times 10^{-4}$ | | |
| 850 | 840-864 | Nd:YAG(532)[116] | Ethanol/DMSO,94/6 | $7.7 \times 10^{-5}$(IR-144),<br>$9.5 \times 10^{-4}$(R640) | | |
| 863 | 844-885 | Nd:YAG→C720(700)[66] | DMSO | $2 \times 10^{-4}$ | | |
| 869 | Δλ(bb)=14 | Nd:YAG(532)[101] | DMSO | $5 \times 10^{-4}$ | | |
| 874 | Δλ(bb)=12 | Nd:YAG(532)[102] | DMSO | $5 \times 10^{-4}$ | | |
| 871 | 859-886 | $N_2$(337)[111] | DMSO | $8.3 \times 10^{-4}$(IR-144),<br>$8 \times 10^{-4}$(DTTC) | | |
| 872 | 861-887 | $N_2$(337)[111] | DMSO | $1.3 \times 10^{-3}$(IR-144),<br>$6 \times 10^{-4}$(DTTC) | | |
| 874 | 862-892 | $N_2$(337)[114] | DMSO | $1.6 \times 10^{-3}$ | | |
| 877 | 866-890 | $N_2$(337)[111] | DMSO | $2.5 \times 10^{-3}$ | | |
| | 834-892 | Kr(752,799)[71] | EG/DMSO,3/1 | $3.9 \times 10^{-4}$ | | |
| | 835-890 | Ruby(694)[35] | DMSO | $2.2 \times 10^{-4}$ | | |

e = ethanol; s = DMSO

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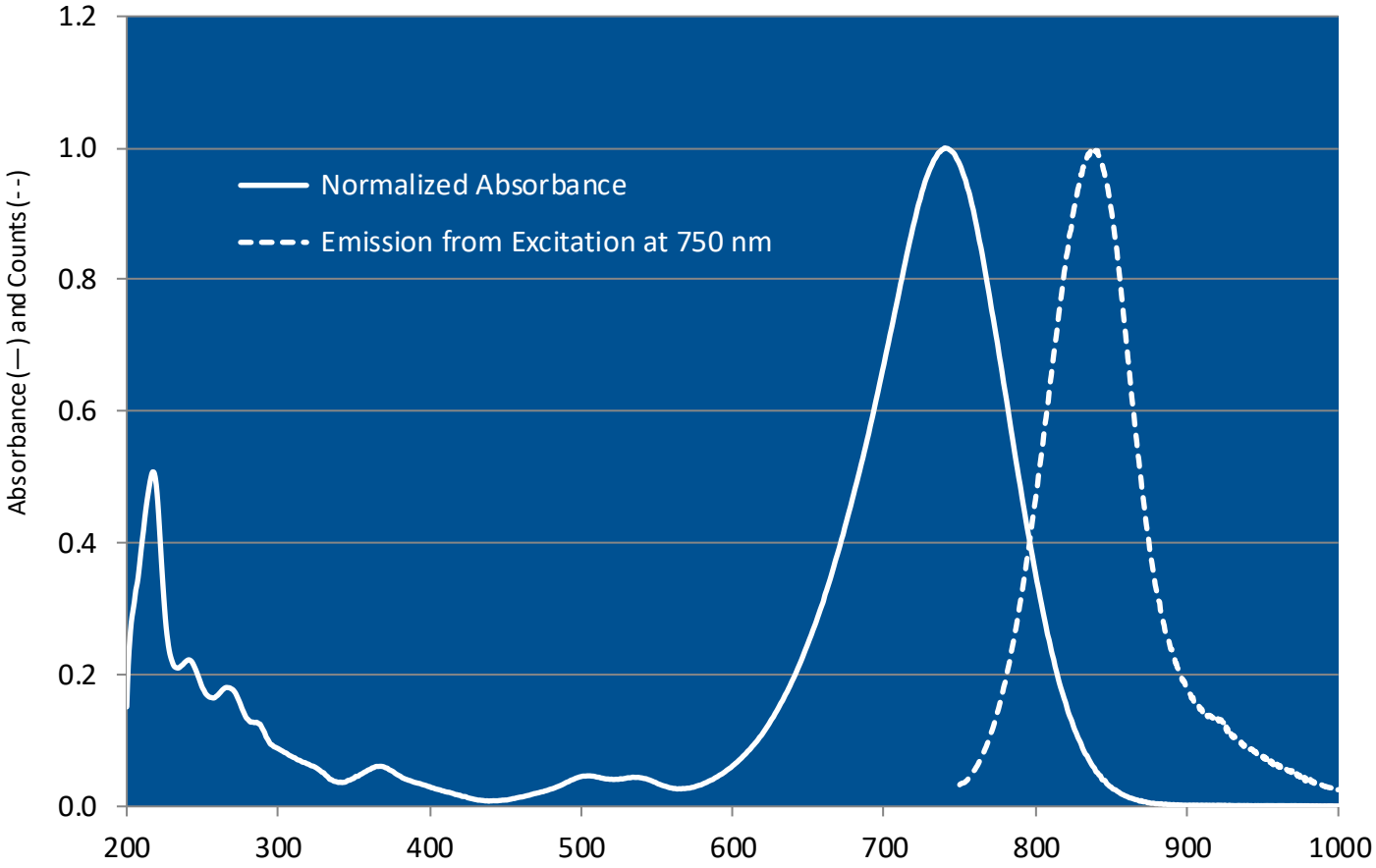
## IR 144 in Methanol




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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