

Supplementary Materials (SM) for

Questions of Mirror Symmetry at the Photoexcited and Ground States of Non-Rigid Luminophores Raised by Circularly Polarized Luminescence and Circular Dichroism Spectroscopy.

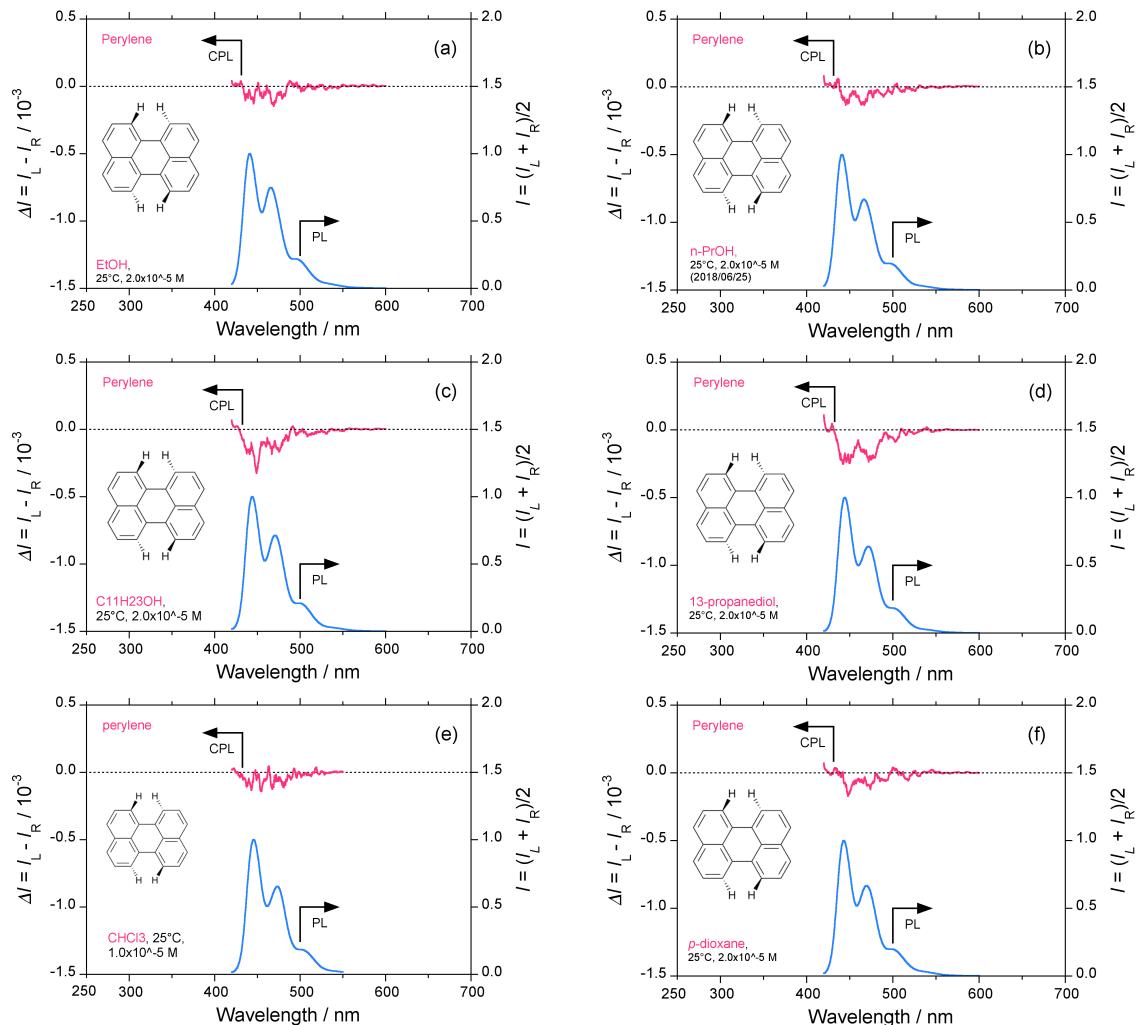
Part 2. Perylenes, BODIPYs, Molecular Scintillators, Coumarins, Rhodamine B, and DCM

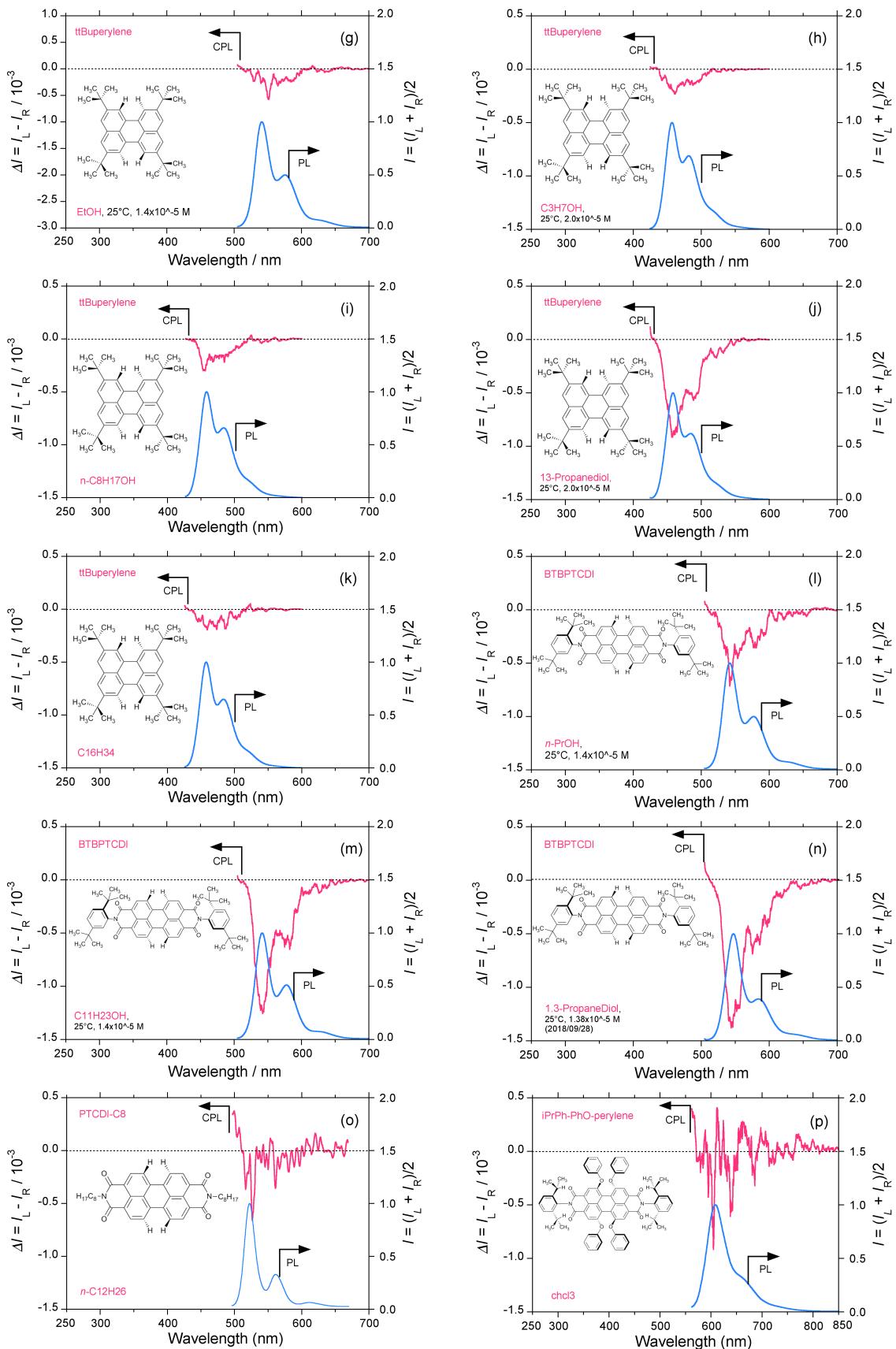
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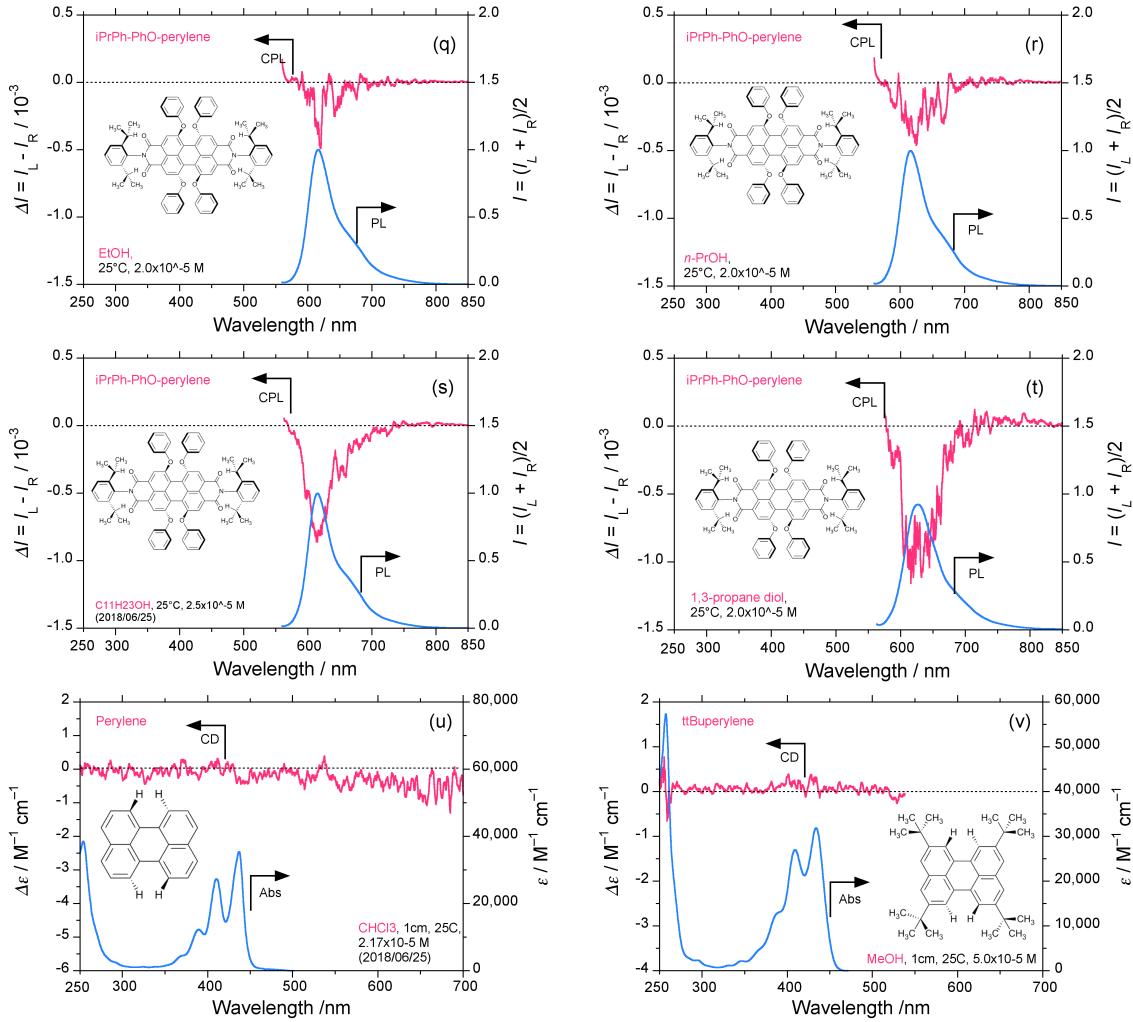


Figure S1. CPL/PL spectra of perylene and its five derivatives in alcoholic solvents at room temperature (path length: 10 mm, cylindrical cuvette, conc.: (1–5) $\times 10^{-5}$ M. CPL/PL spectra excited at 390 nm of perylene in (a) ethanol, (b) *n*-propanol, (c) *n*-undecanol, (d) 1,3-propanediol, (e) chloroform, (f) 1,4-dioxane. CPL/PL spectra excited at 395 nm of ttBuperylene in (g) ethanol, (h) *n*-propanol, (i) *n*-octanol, (j) 1,3-propanediol, (k) *n*-hexadecane. CPL/PL spectra excited at 470 nm of BTBPTCDI in (l) *n*-propano, (m) *n*-undecanol, (n) 1,3-propanediol. CPL/PL spectra excited at 470 nm of PTCDI-C8 in (o) *n*-dodecane. CPL/PL spectra excited at 525 nm of iPrPh-PhO-perylene in (p) chloroform, (q) ethanol, (r) *n*-propanol, (s) *n*-undecanol and (t) 1,3-propanediol. CD/UV-visible spectra of perylene in (u) chloroform. CD/UV-visible spectra of ttBuperylene in (v) methanol. Measurement conditions: path length: 10 mm, cylindrical cuvette, conc.: (2.0–5.0) $\times 10^{-5}$ M at room temperature.

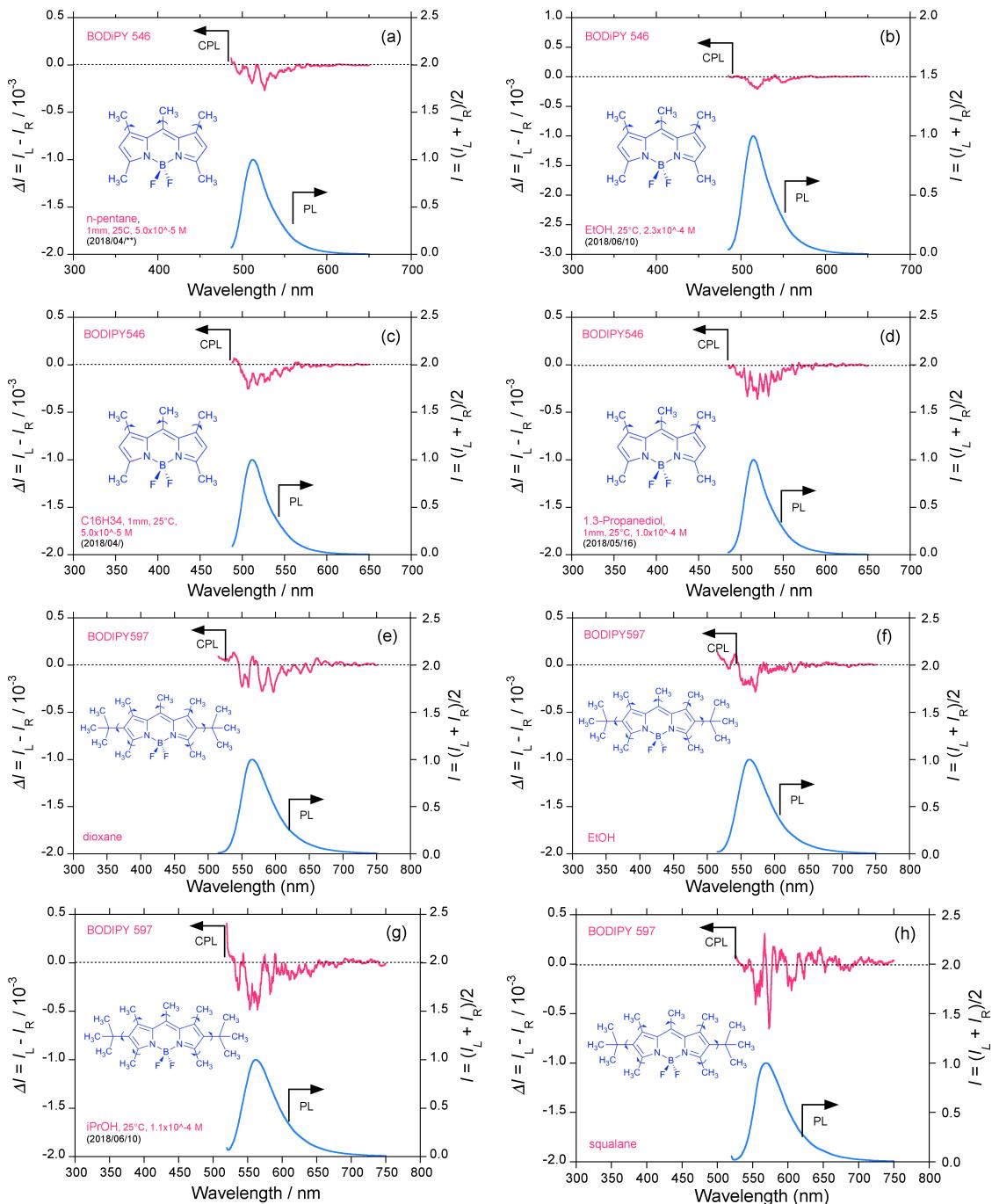


Figure S2. CPL/PL spectra of BODIPY 546 excited at 460 nm and BODIPY 597 excited at 490 nm in several solvents at room temperature (path length: 1 or 10 mm, cylindrical cuvette, conc; (1–10) × 10⁻⁵ M. BODIPY 546 in (a) *n*-pentane, (b) ethanol, (c) *n*-hexadecane and (d) 1,3-propanediol. BODIPY 597 in (e) *p*-dioxane, (f) ethanol, (g) isopropanol and (h) squalane.

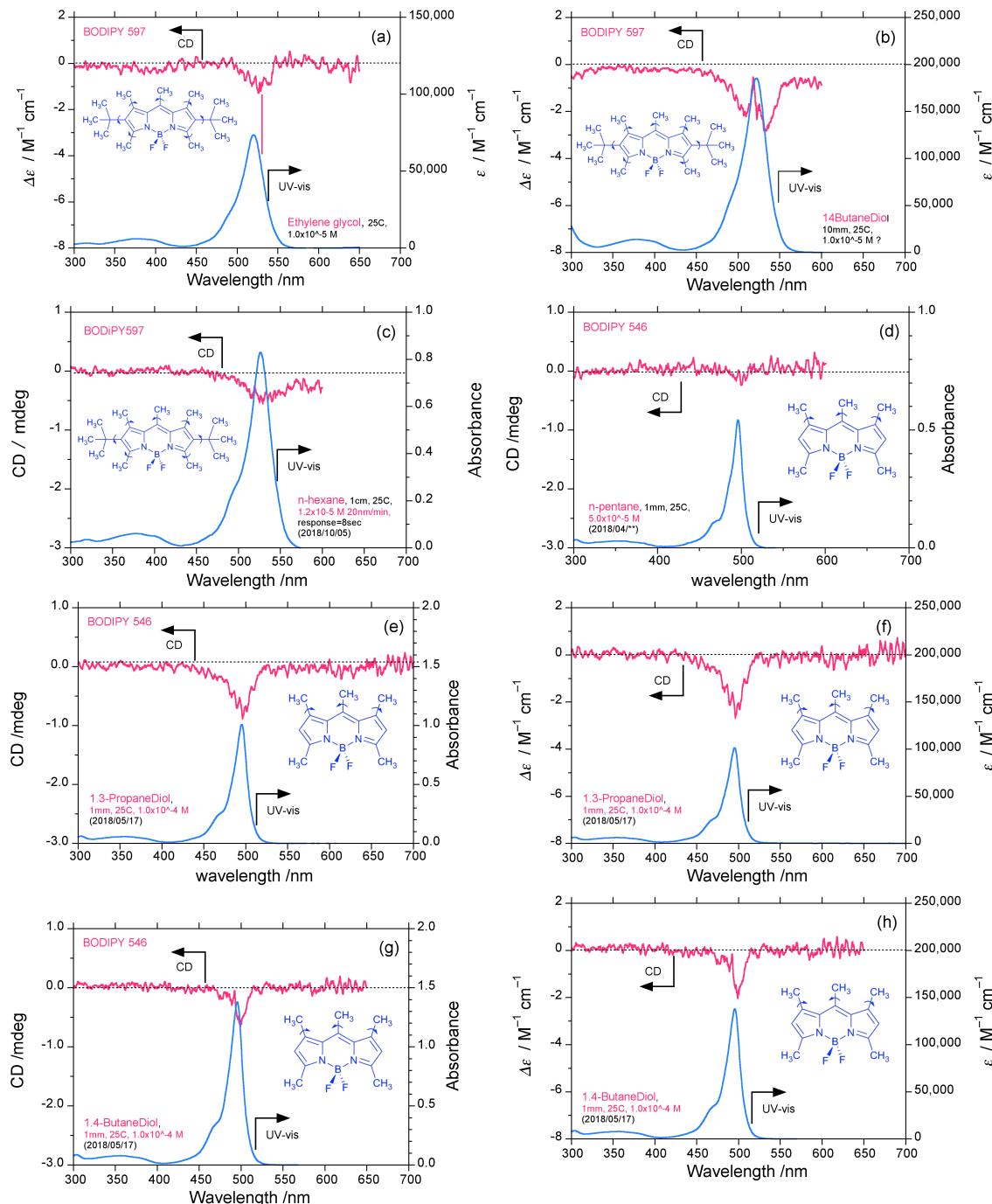
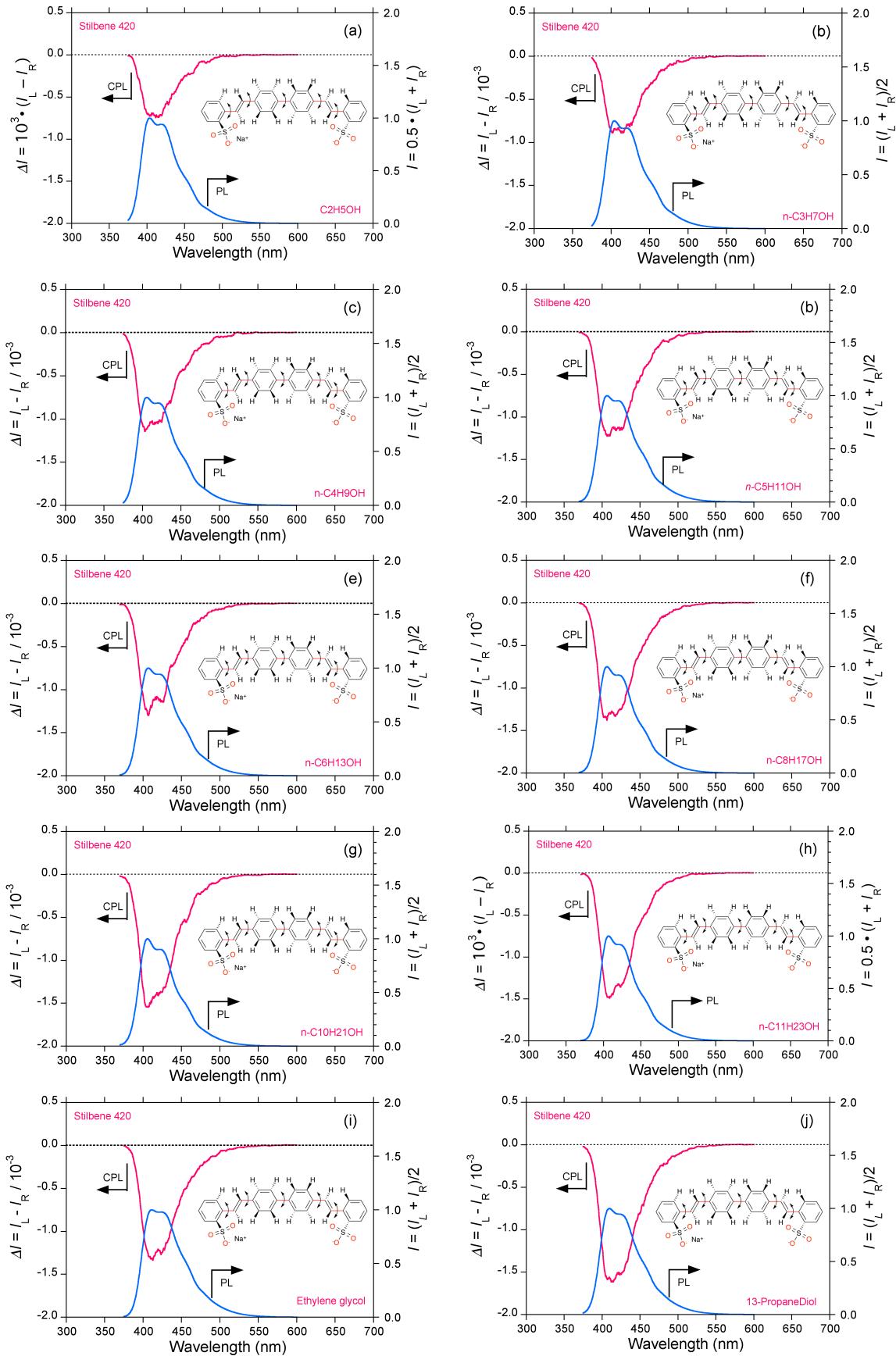


Figure S3. CD/UV-vis spectra of BODIPY 597 and BODIPY 546 in several solvents at room temperature (path length: 1 or 10 mm, cylindrical cuvette, conc: (1–10) × 10⁻⁵ M. BODIPY 597 in (a) ethylene glycol, (b) 1,4-butanediol and (c) *n*-hexane (raw spectra). BODIPY 546 in (d) *n*-pentane (raw spectra), (e) 1,3-propanediol (raw spectra), (f) 1,3-propanediol (processed spectra), (g) 1,4-butanediol (raw spectra) and (h) 1,4-butanediol (processed spectra).



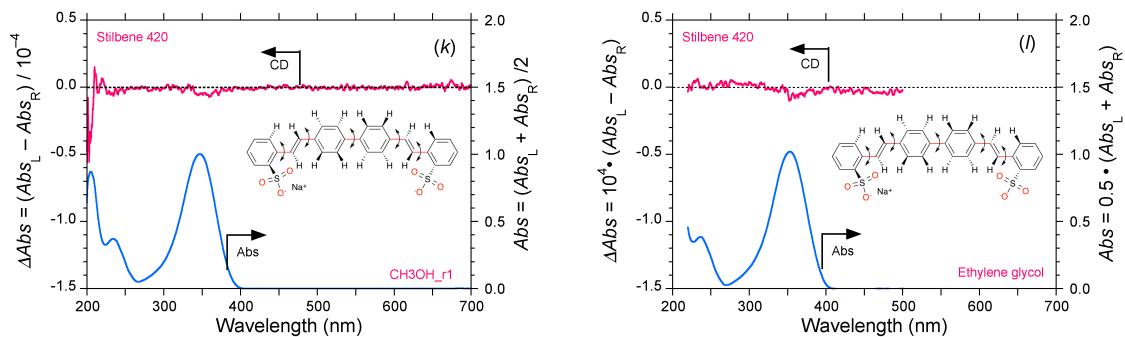
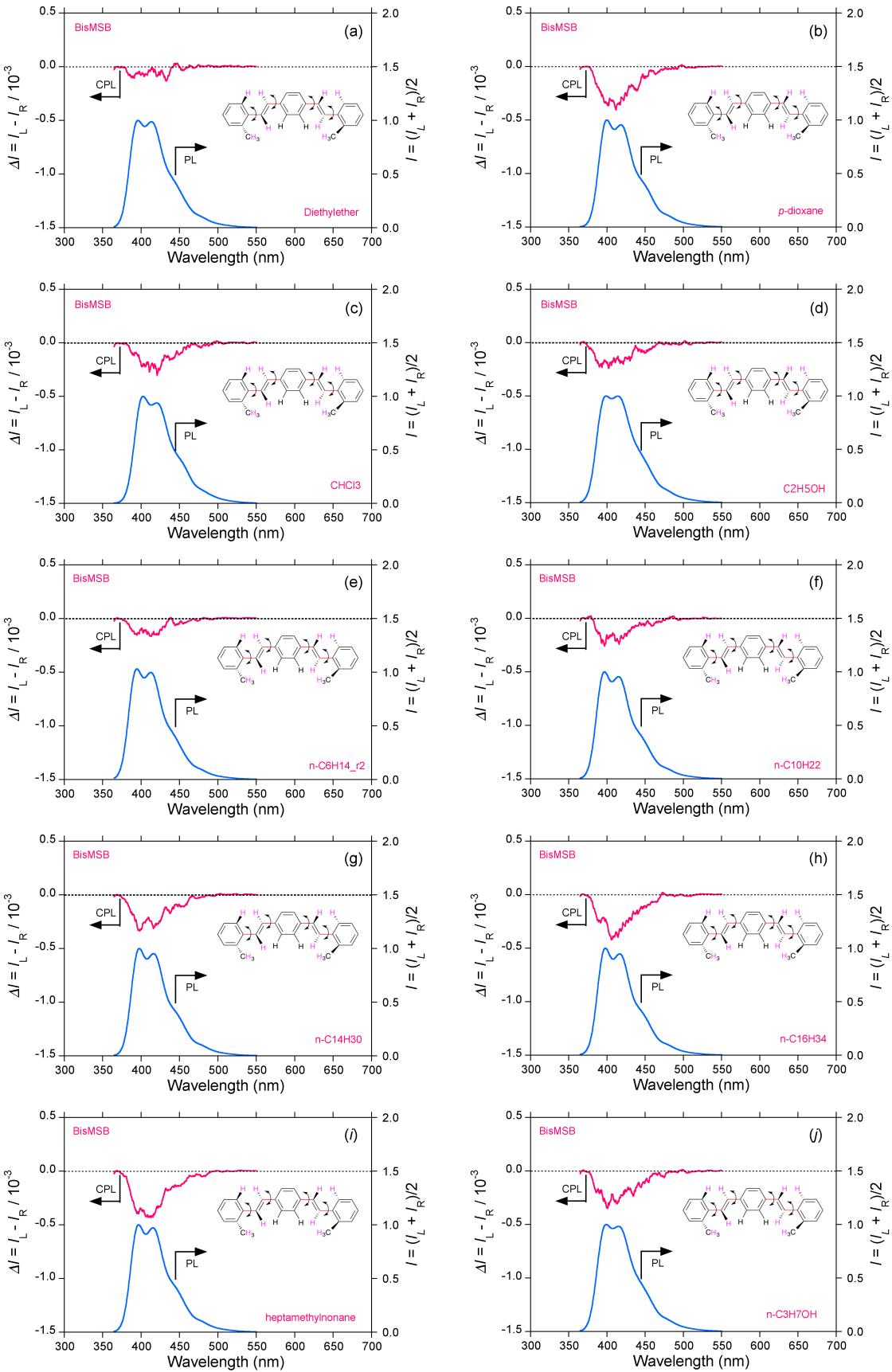


Figure S4. CPL/PL spectra of Stilbene 420 in (a) ethanol, (b) *n*-propanol, (c) *n*-butanol, (d) *n*-pentanol, (e) *n*-hexanol, (f) *n*-octanol, (g) *n*-decanol, (h) *n*-undecanol, (i) ethylene glycol and (j) 1,3-propanediol at room temperature. CD/UV-vis spectra of Stilbene 420 in (k) methanol and (l) ethylene glycol. Path length: 10 mm, cylindrical cuvette, conc; (2.5-5.0) $\times 10^{-5}$ M.



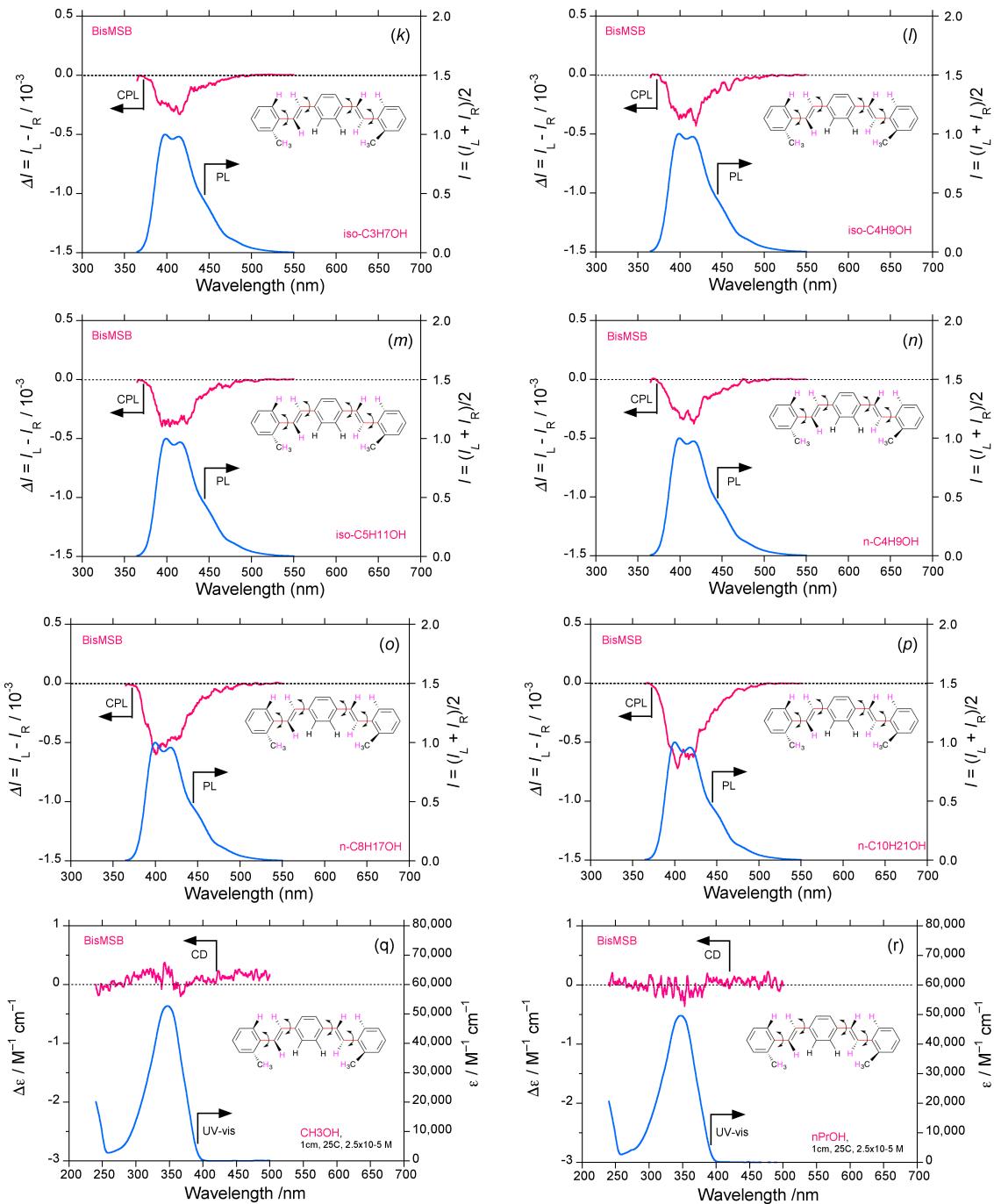


Figure S5. CPL/PL spectra of Bis-MSB in (a) diethylether, (b) *p*-dioxane, (c) chloroform, (d) ethanol, (e) *n*-hexane, (f) *n*-decane, (g) *n*-tetraadecane, (h) *n*-hexadecane, (i) hexamethylnonane, (j) *n*-propanol, (k) isopropanol, (l) isobutanol, (m) isopentanol, (n) *n*-hexanol, (o) *n*-octanol and (p) *n*-decanol at room temperature. CD/UV-vis spectra of Bis-MSB in (q) methanol and (r) *n*-propanol at room temperature. Path length: 10 mm, cylindrical cuvette, conc; 2.5×10^{-5} M.

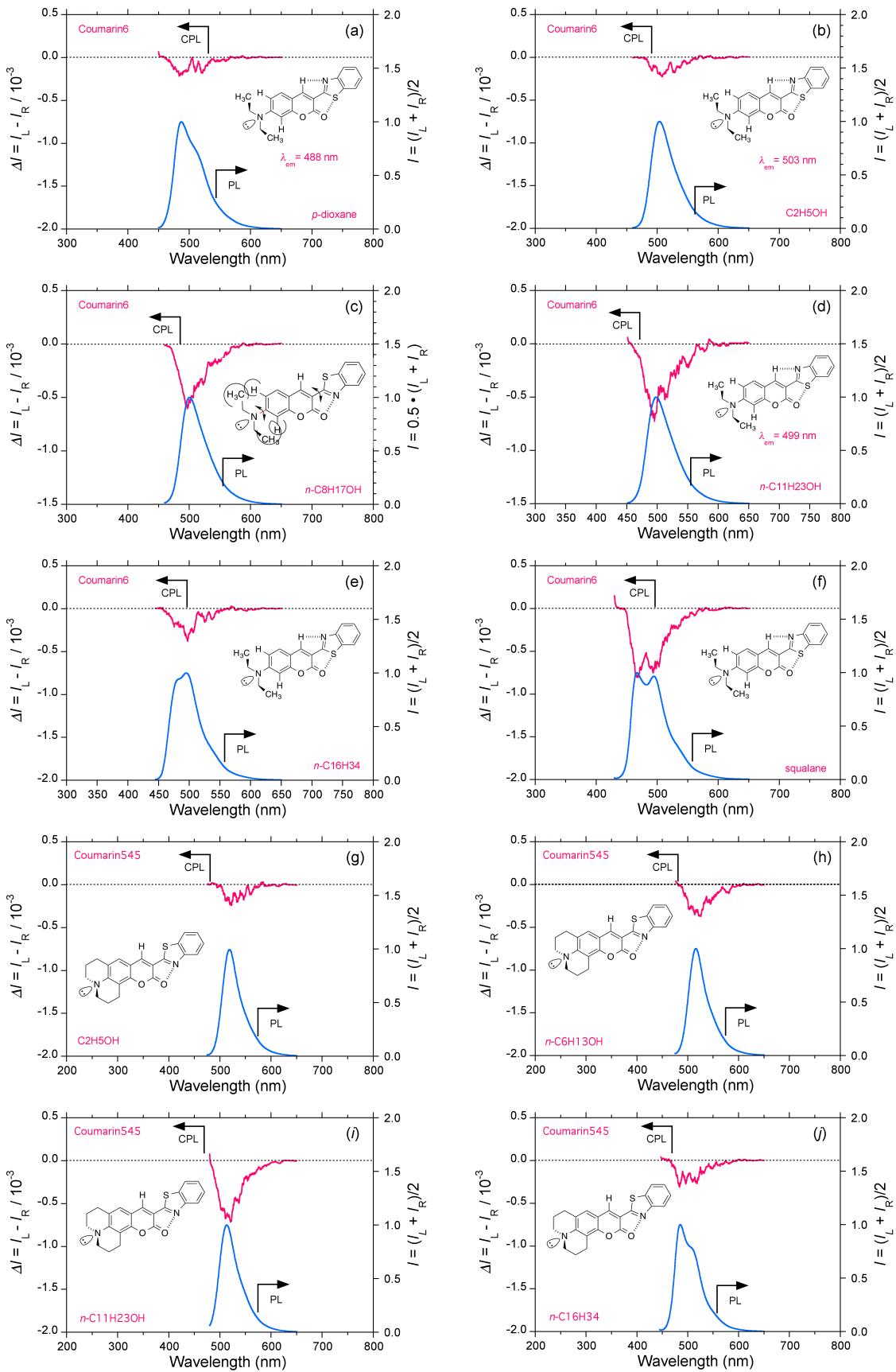


Figure S6. CPL/PL spectra of coumarin 6 and coumarin 545 in various liquids at room temperature (path length: 10 mm, cylindrical cuvette, conc; $(2.5\text{--}10) \times 10^{-5}$ M. Coumarin 6 in (a) *p*-dioxane, (b) ethanol, (c) *n*-octanol, (d) *n*-undecanol, (e) *n*-hexadecane and (f) squalane. Coumarin 545 in (g) ethanol, (h) *n*-hexanol, (i) *n*-undecanol and (j) *n*-hexadecane.

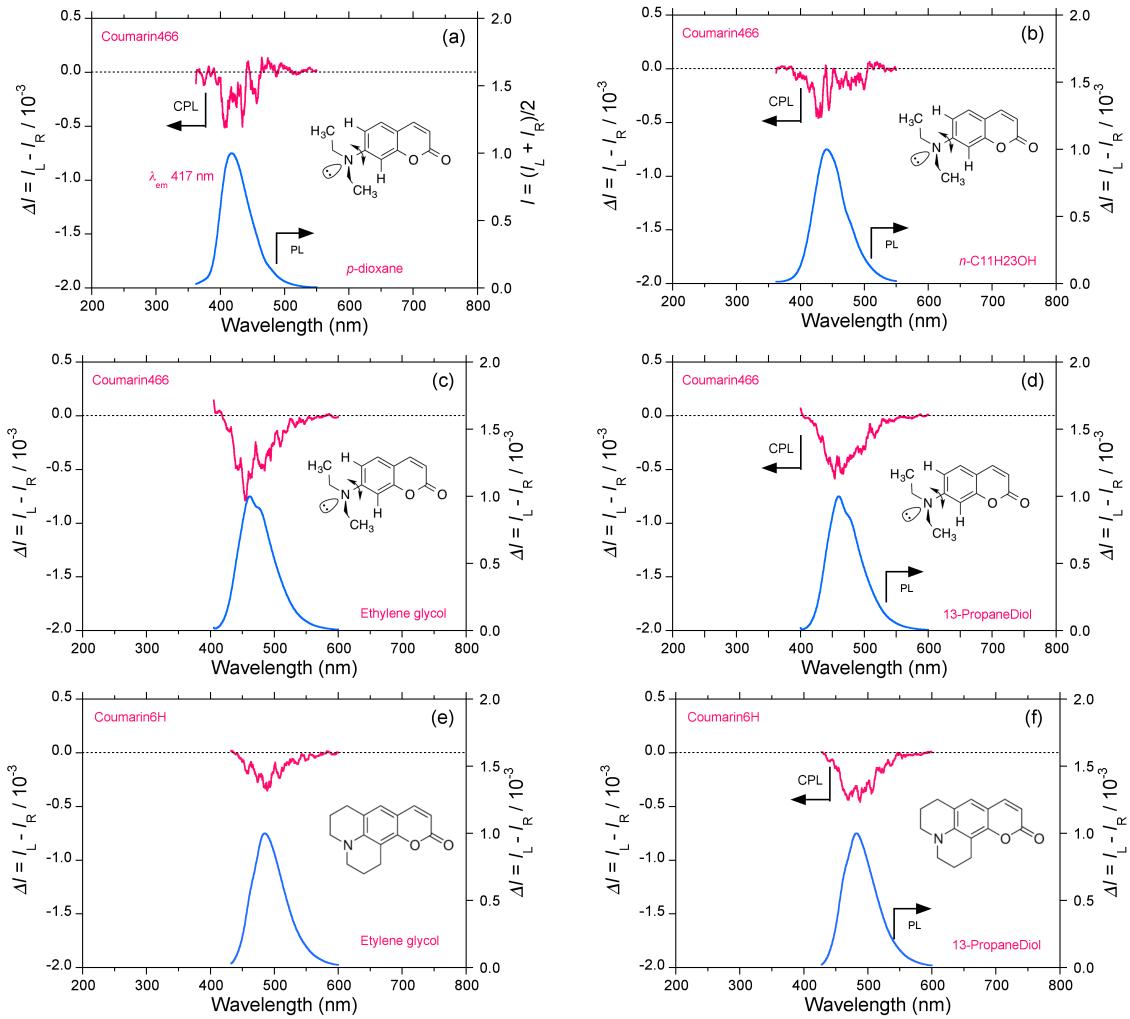


Figure S7. CPL/PL spectra of coumarin 466 and coumarin 6H in various liquids at room temperature (path length: 10 mm, cylindrical cuvette, conc; $(2.5\text{--}10) \times 10^{-5}$ M. Coumarin 466 in (a) *p*-dioxane, (b) *n*-undecanol (c) ethylene glycol and (d) 1,3-propanediol. Coumarin 6H in (e) ethylene glycol and (f) 1,3-propanediol.

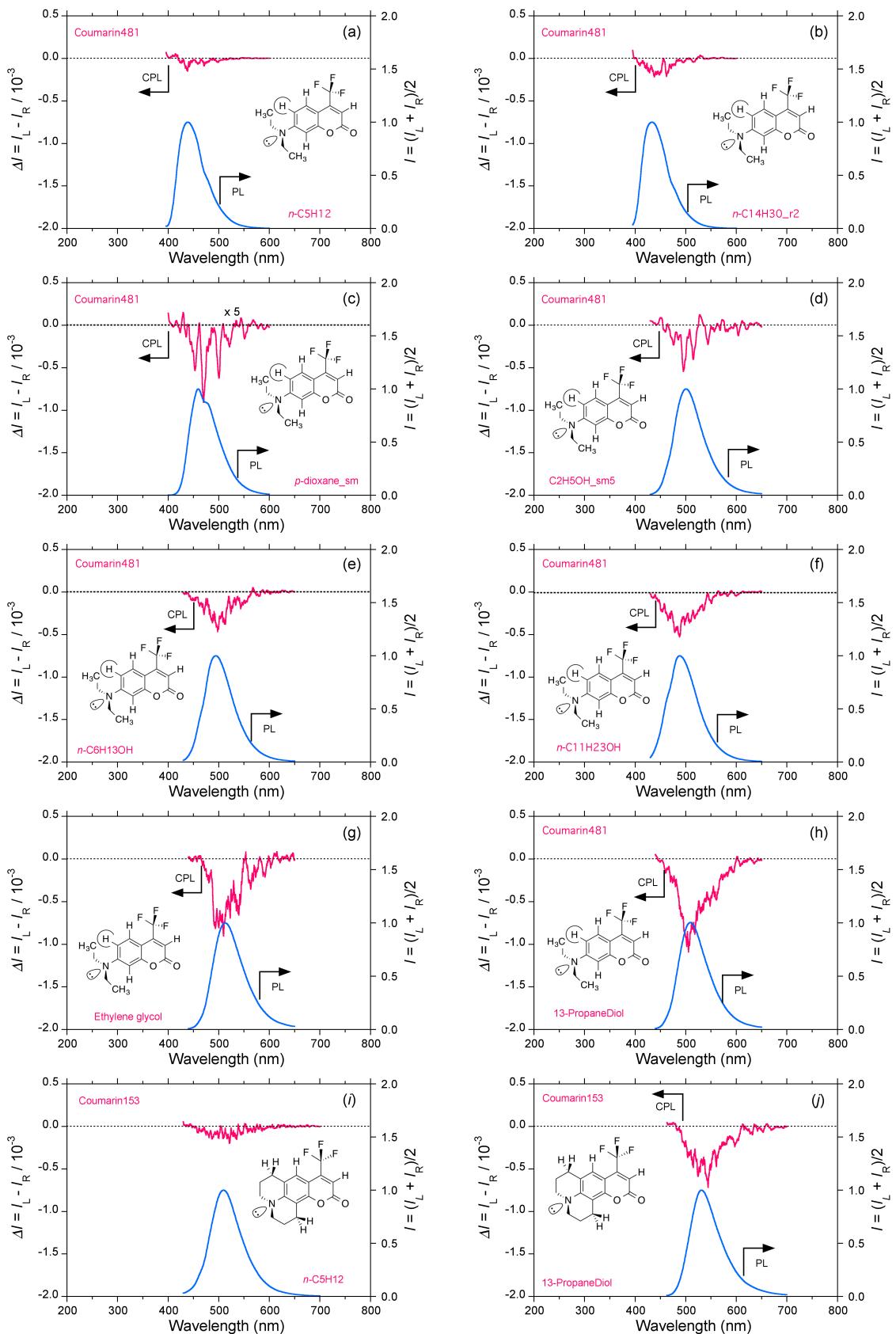


Figure S8. CPL/PL spectra of coumarin 481/35 and coumarin 153 in various liquids at room temperature (path length: 10 mm, cylindrical cuvette, conc; $(2.5\text{--}10) \times 10^{-5}$ M. Coumarin 481/35 in (a) *n*-pentane, (b) *n*-tetradecane, (c) *p*-dioxane, (d) ethanol, (e) *n*-hexanol, (f) *n*-undecanol, (g) ethylene glycol and (h) 1,3-propanediol. Coumarin 153 in (i) *n*-pentane and (j) 1,3-propanediol.

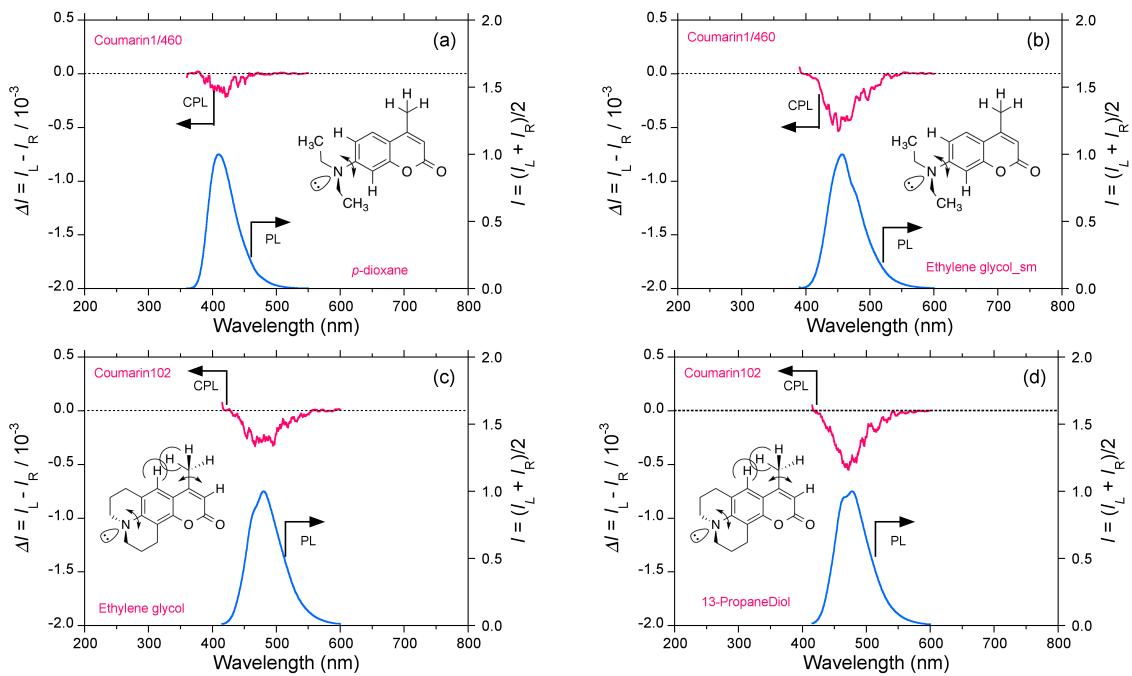
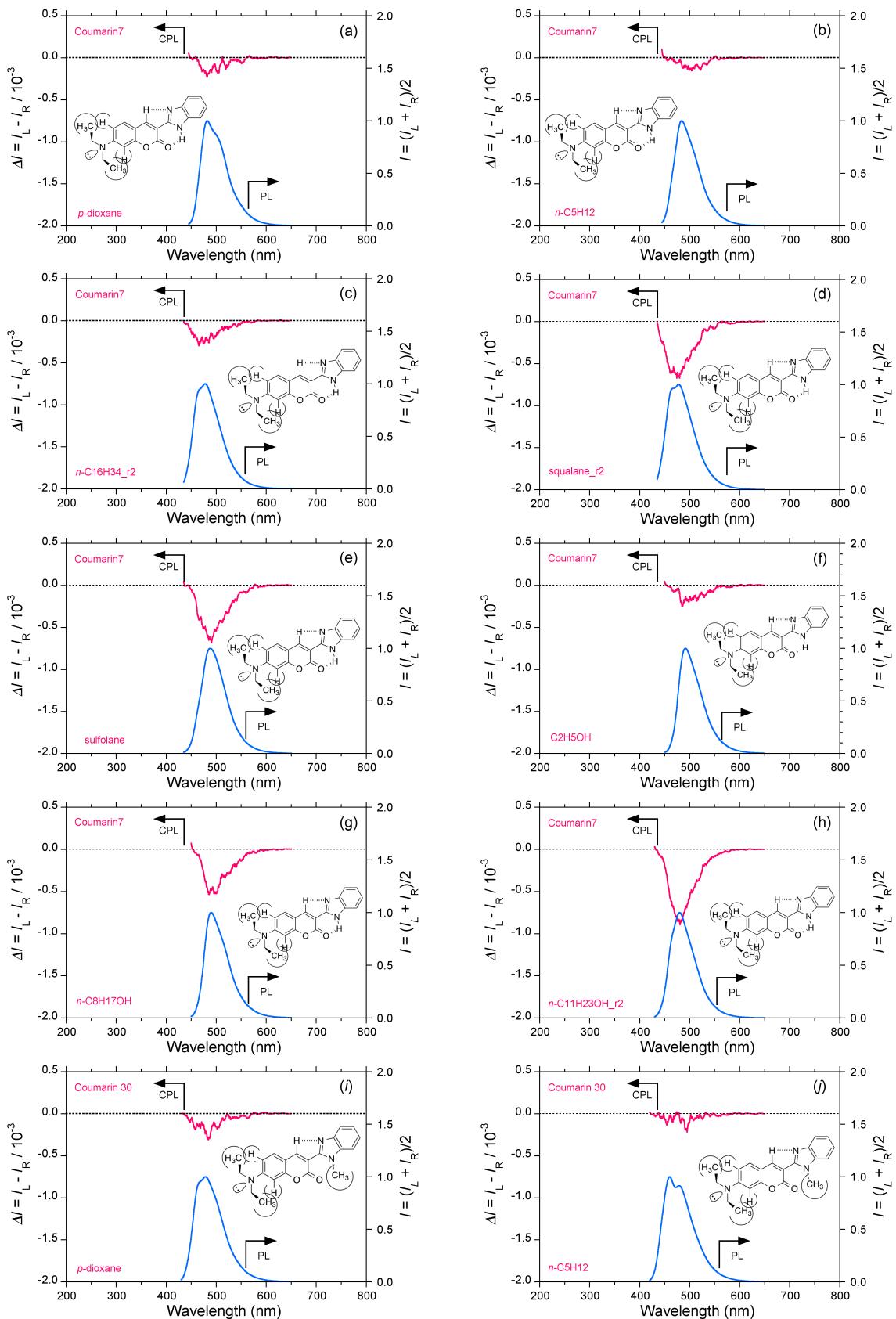


Figure S9. CPL/PL spectra of coumarin 1/460 and coumarin 102 in various liquids at room temperature (path length: 10 mm, cylindrical cuvette, conc; $(2.5\text{--}5) \times 10^{-5}$ M. Coumarin 1/460 in (a) *p*-dioxane and (b) ethylene glycol. Coumarin 102 in (c) ethylene glycol and (d) 1,3-propanediol.



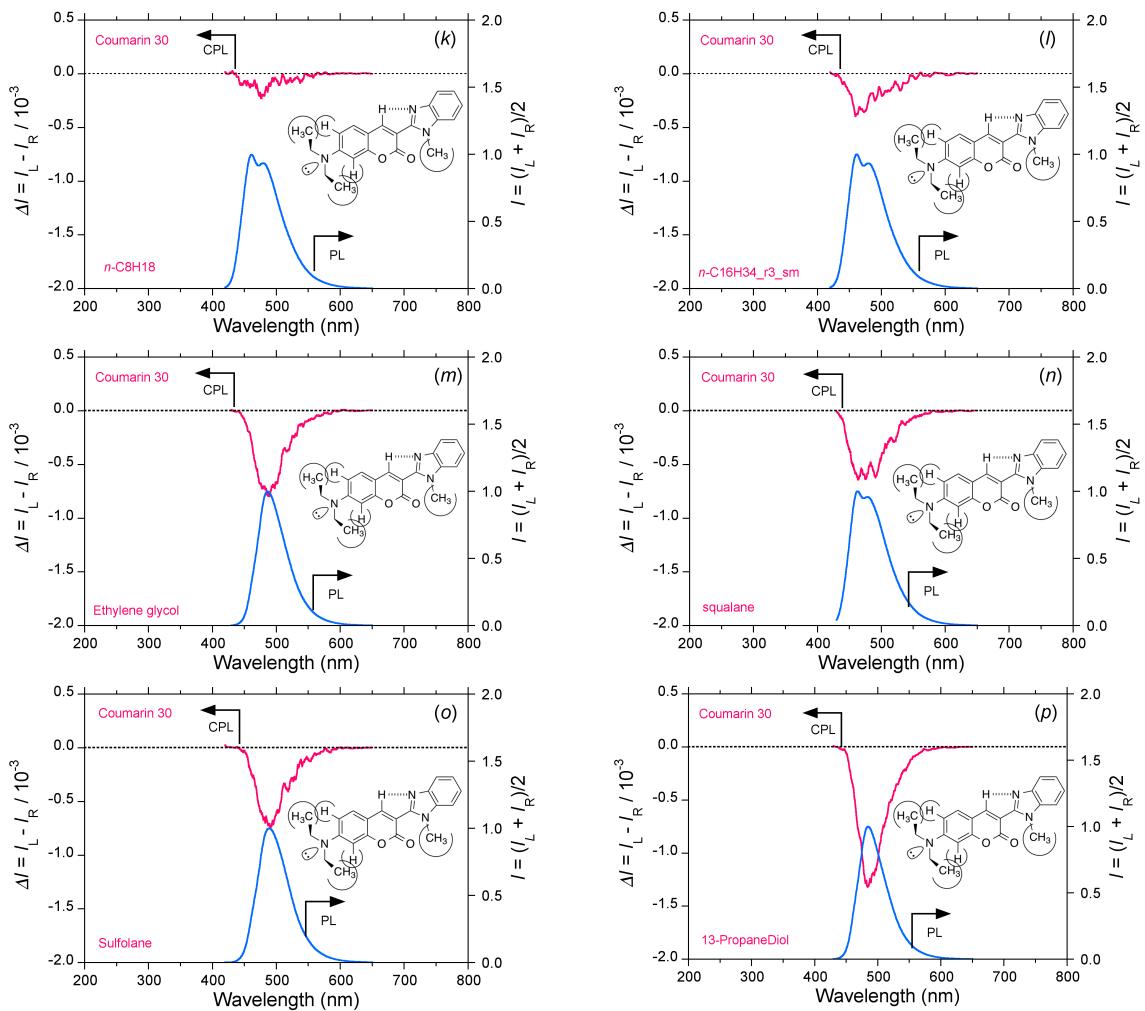


Figure S10. CPL/PL spectra of coumarin 7 and coumarin 30 in various liquids at room temperature (path length: 10 mm, cylindrical cuvette, conc; $(2.5\text{--}5) \times 10^{-5}$ M. Coumarin 7 in (a) *p*-dioxane, (b) *n*-pentane, (c) *n*-hexadecane, (d) squalane, (e) *p*-dioxane, (f) ethanol, (g) *n*-octanol and (h) *n*-undecanol. Coumarin 30 in (i) *p*-dioxane, (j) *n*-pentane, (k) *n*-octane, (l) *n*-hexadecane, (m) ethylene glycol, (n) squalane, (o) sulfolane and (p) 1,3-propanediol.