

キラルピレン誘導体の水素結合性分子集合体の円偏光発光

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J. Phys. Chem. C., 122(2018), 6323–6331.

Published online: 27 Feb. 2018

DOI: 10.1021/acs.jpcc.7b12747

Circular Polarized Luminescence of Hydrogen-Bonded Molecular Assemblies of Chiral Pyrene Derivatives

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Figure 1. Molecular structures of chiral alkylamide-substituted pyrene derivatives (**R-1** and **S-1**) and achiral **2**.

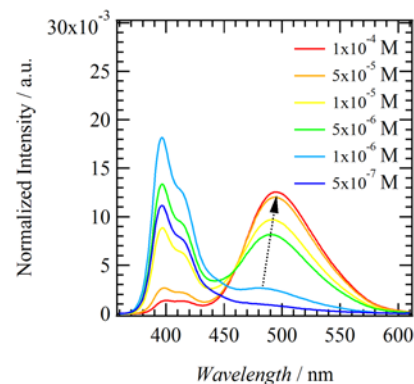


Figure 2. Concentration dependent fluorescence spectra of **S-1** in $CHCl_3$.

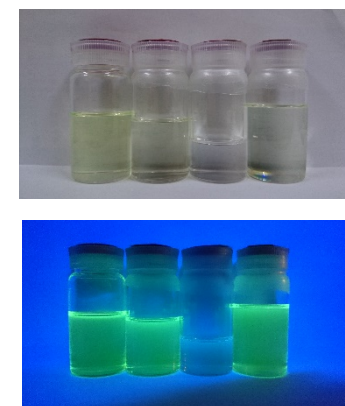


Figure 3. Photograph of solution phase **S-1** in $CHCl_3$, MCH, THF, and toluene (left to right) under visible (upper) and UV-light (lower).

The absorption and fluorescence spectra of chiral alkylamide-substituted pyrene derivatives in the solution phase were consistent with the formation of hydrogen-bonded helical π -stacked one-dimensional supramolecules. The circular polarized luminescence spectra revealed a g lum value of 0.03 in MCH. Circular dichroism and CPL spectra revealed the formation of hydrogen-bonded helical 1D supramolecular assemblies in the ground and excited states.

キラルアルキルアミド置換ピレン誘導体の溶液中の吸収および発光スペクトルは、水素結合性のらせん π スタック超分子構造の形成と一致した。円偏光発光スペクトルは、基底状態と励起状態における1次元水素結合らせん超分子の形成に由来する結果である。