Laboratoire PPSM – UMR CNRS 8531

Photochimie et Photophysique Supramoléculaires et Macromoléculaires

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«Photoswitching of Fluorescence Properties Based on Photochromic Materials»

Fluorescent photochromic molecules, which have both photochromic and fluorescent chromophores in a molecule, have attracted increasing interest because of their potential applications in optical memories, molecular switches, fluorescent biological markers and super-high resolution fluorescence imaging.[1] In this seminar, I will present about design and synthesis of fluorescent photoswitchable molecules based on the intramolecular energy transfer[2], the intramolecular electron transfer[3], and another mechanism[4]. In addition, I will also present fluorescence photoswitching properties in bulk ensemble condition as well as at the single-molecule level.

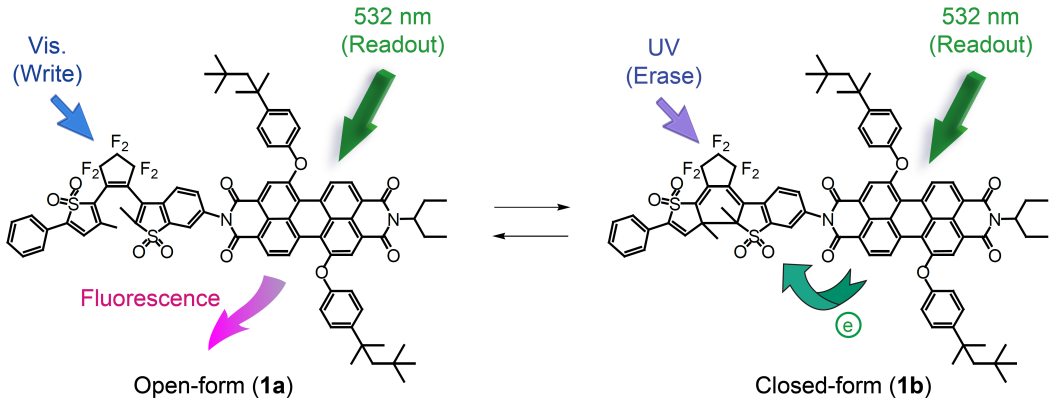

Figure 1. One example of fluorescence photoswitching molecules based on diarylethene photochromism.

References

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[4] T. Fukaminato et al., ***Chem. Commun.***, *48*, 10874-10876 (2012).

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