

SUPPORTING INFORMATION

Metal ion driven formation of a light-harvesting antenna investigated by sensitized luminescence and fluorescence anisotropy

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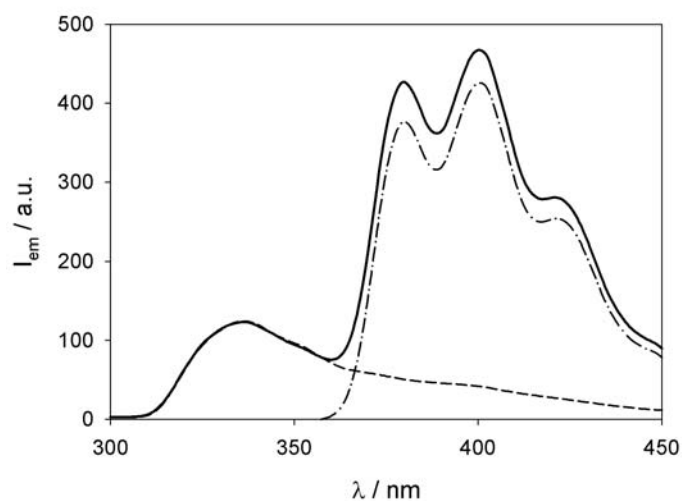


Figure S1. Emission spectra of **D** (dashed line), **C**²⁻ (dashed-dotted line), and an equimolar solution of the two species (solid line) in the presence of 80 equivalents of Zn(CF₃SO₃)₂ in CH₃CN/CH₂Cl₂ 1:1 (v/v) solution at 298 K. $\lambda_{\text{ex}} = 288$ nm. Concentration of **D** and **C**²⁻: 5.2×10^{-6} M.

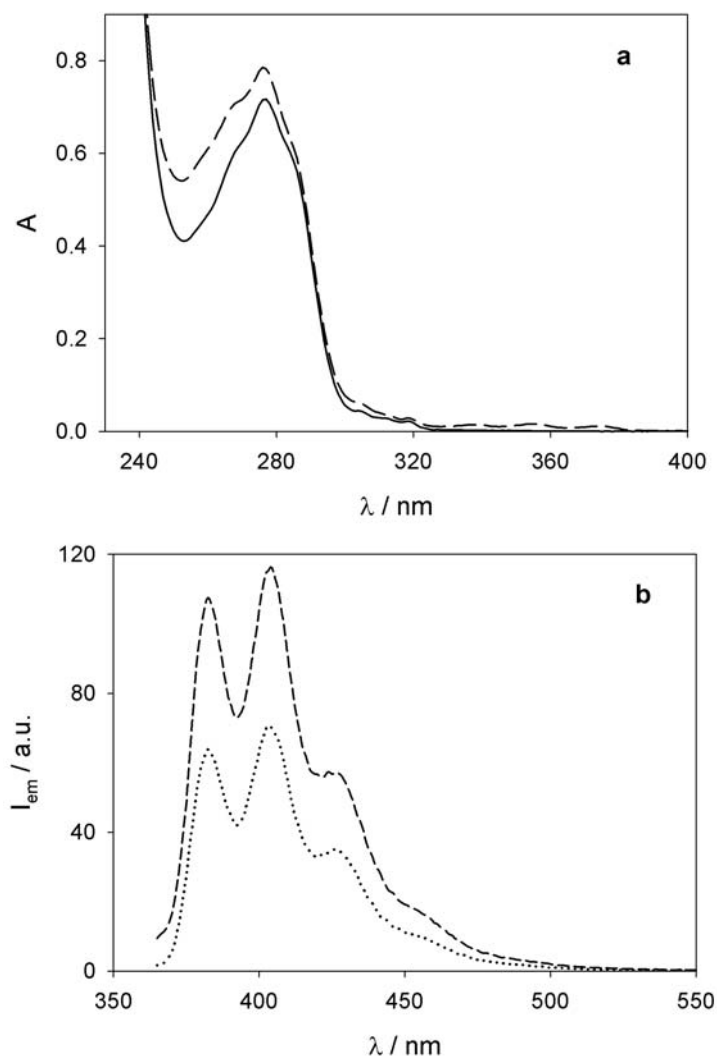


Figure S2. (a) Absorption spectra of a 6.4×10^{-6} M solution of **D** in the presence of 1.1 eq. of $\text{Zn}(\text{CF}_3\text{SO}_3)_2$ before (solid line) and after (dashed line) addition of 0.2 eq. of C^{2-} . (b) Emission spectra of a 6.4×10^{-6} M solution of **D** in the presence of 1.1 eq. of $\text{Zn}(\text{CF}_3\text{SO}_3)_2$ with 0.2 eq. of C^{2-} upon excitation at 304 (dashed line) and 355 nm (dotted line). Solvent: $\text{CH}_3\text{CN}/\text{CH}_2\text{Cl}_2$ 1:1 (v/v) mixture; $T = 298$ K.

The sensitization efficiency has been evaluated from the absorption and emission spectra reported in Figure S2 taking into consideration the following equation:

$$\eta = (I_{\text{obs}} - I_{0\%}) / (I_{100\%} - I_{0\%})$$

where I_{obs} is the experimental emission intensity upon excitation at 304 nm, $I_{0\%}$ is the emission intensity expected in the case of no sensitization (emission is only due to the light directly absorbed by the clip at 304 nm), $I_{100\%}$ is the emission intensity expected in the case of unitary efficient sensitization (the light absorbed by both the clip and the dendrimer of the **[DZnC]** complex brings about the clip emission). $I_{0\%}$ and $I_{100\%}$ are calculated on the basis of the emission observed upon excitation at 355 nm (where only the clip absorbs light).