Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting Information

Light-Mediated Formation and Dissociation of a Two-Dimensional Supramolecular Polymer Sheet: One Step Closer to Sustainability

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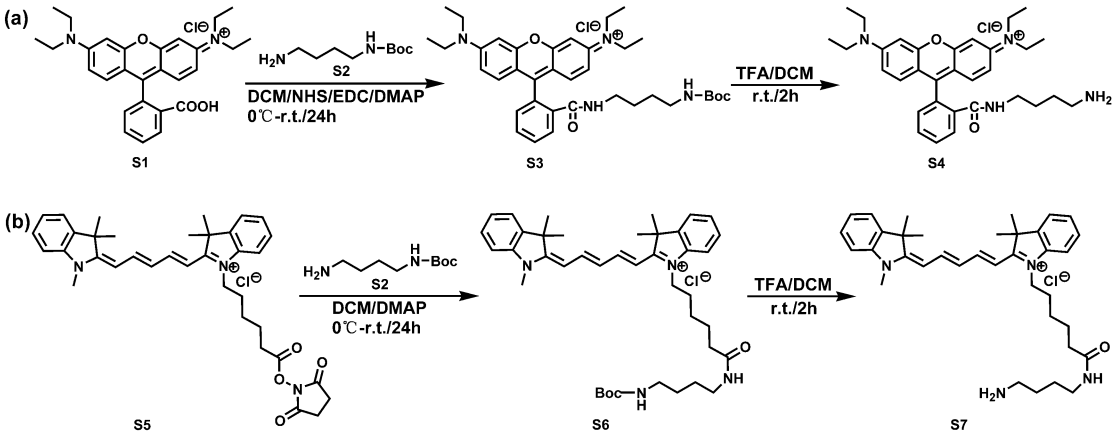

Scheme S1. Synthesis procedure and molecular structure of (a) 1,4-butanediamine-tagged Rhodamine B **S4** and (b) 1,4-butanediamine-tagged Cyanine 5 **S7**.

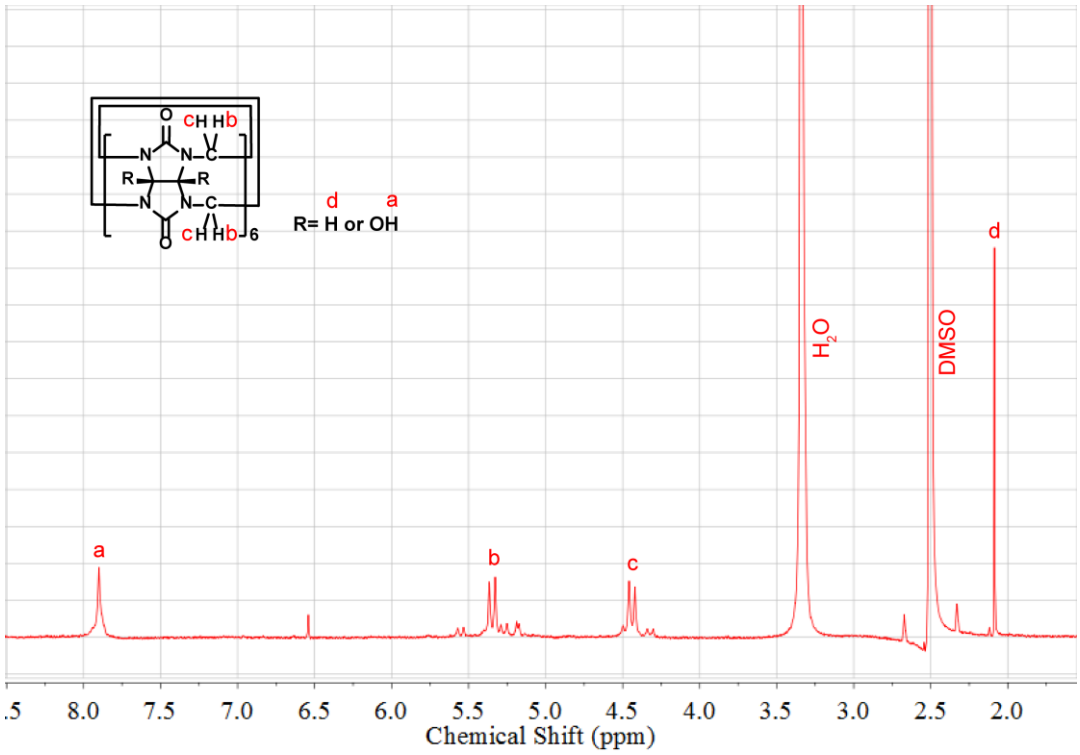

Figure S1. ^{1}H NMR spectrum of CB[6]$_{OH}$ in DMSO-d_6.

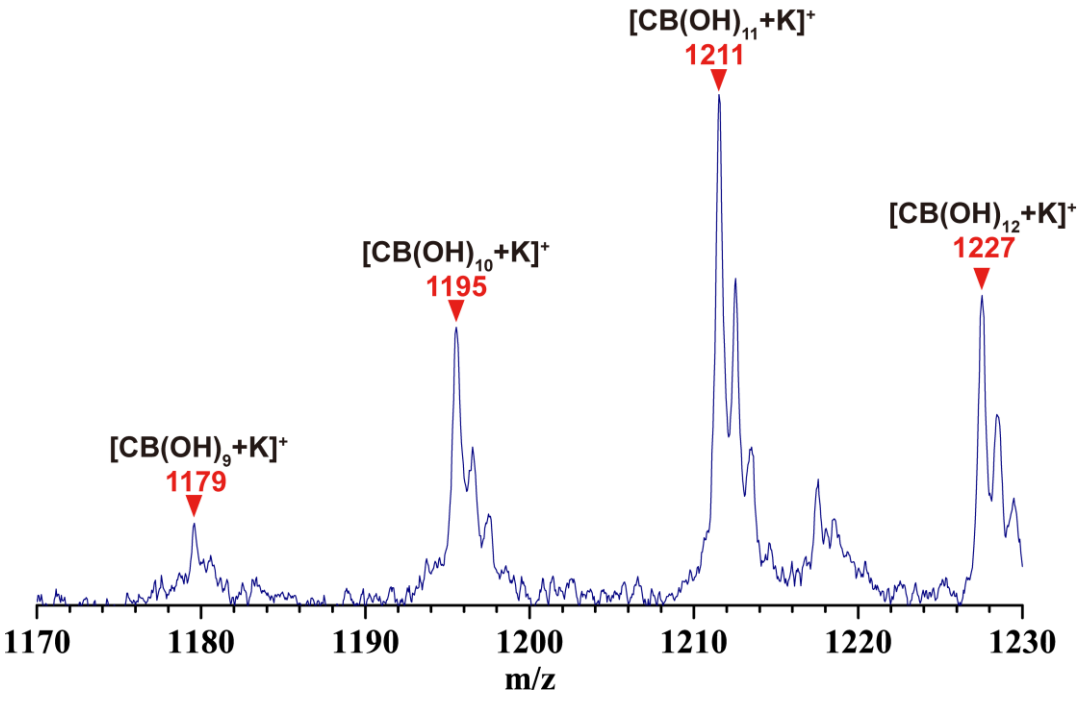

Figure S2. MALDI-TOF mass spectrum of CB[6]$_{OH}$

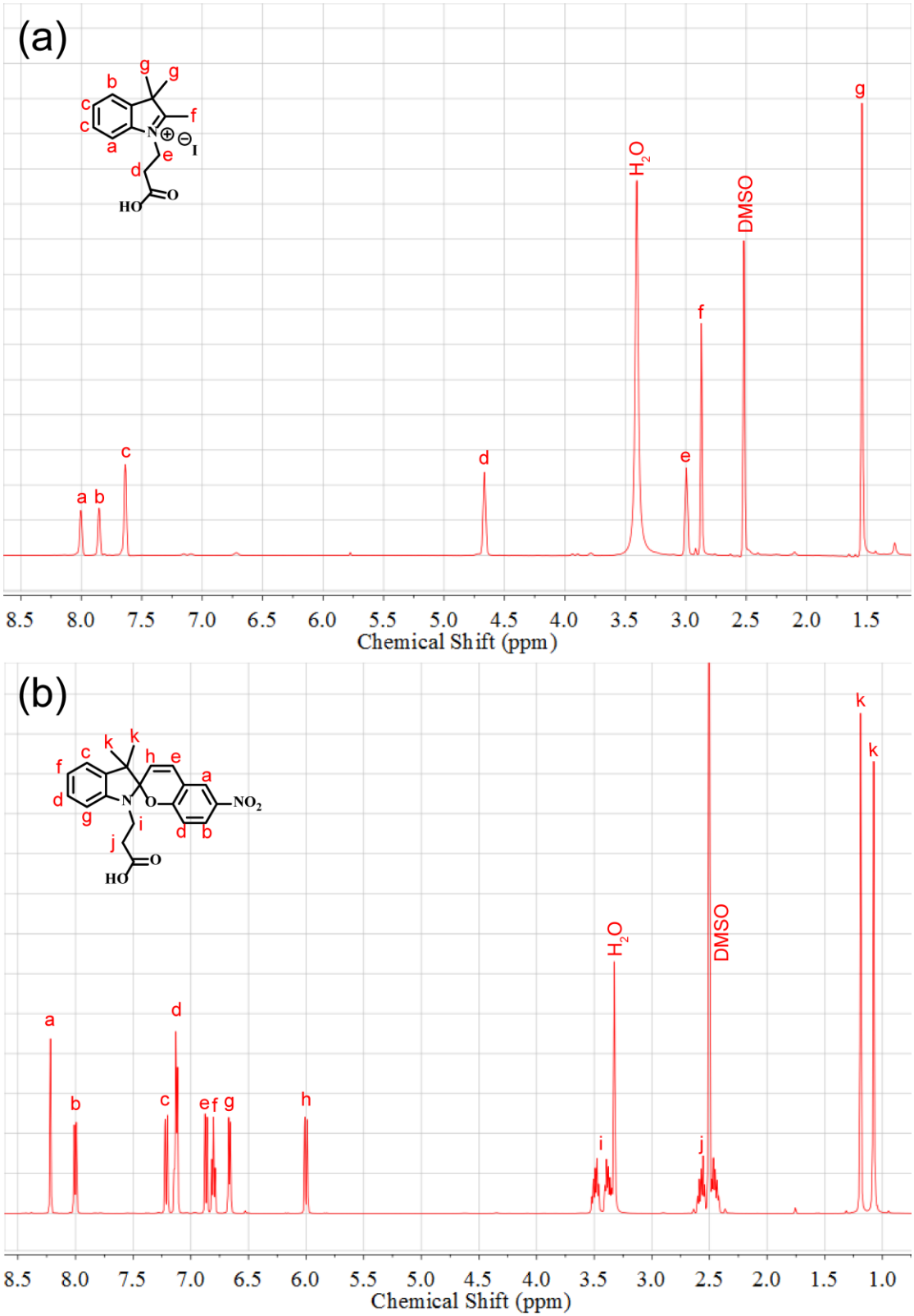

Figure S3. ^{1}H NMR spectra of (a) 1-(β-carboxyethyl)-2,3,3-trimethylindolenine iodide and (b) propionic acid-appended spiropyran in DMSO-d_6.

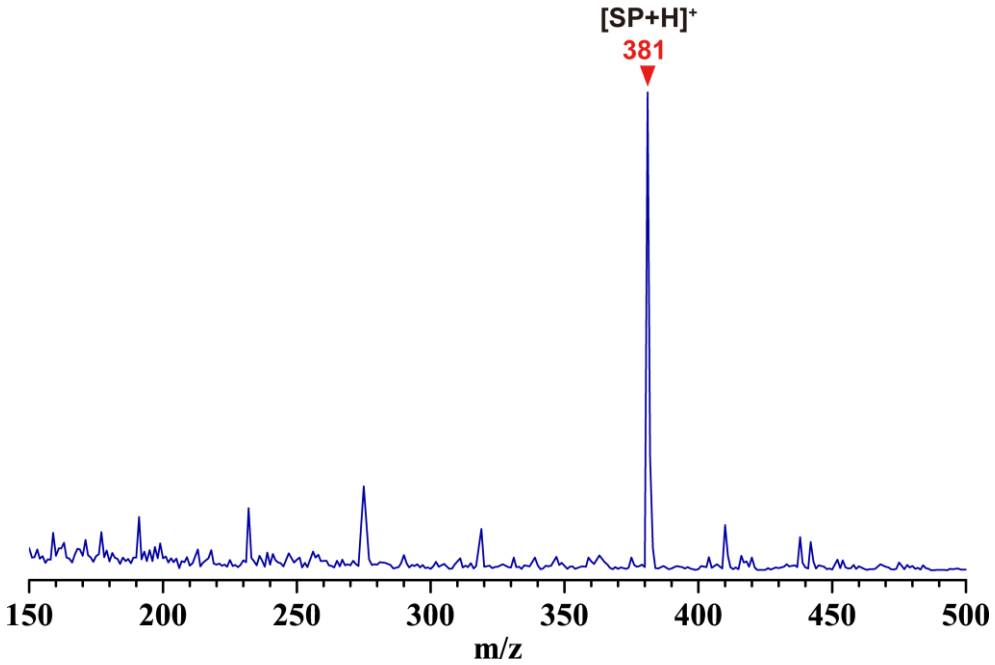

Figure S4. MALDI-TOF mass spectrum of propionic acid-appended spiropyran.

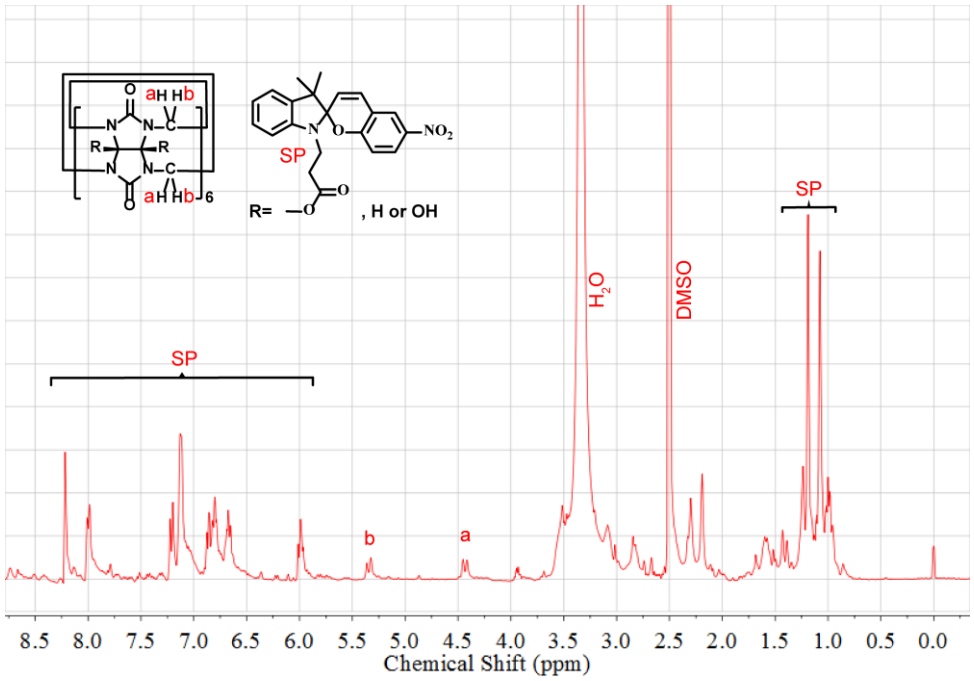

Figure S5. ^{1}H NMR spectrum of $CB[6]_{SP}$ in DMSO-d_6.

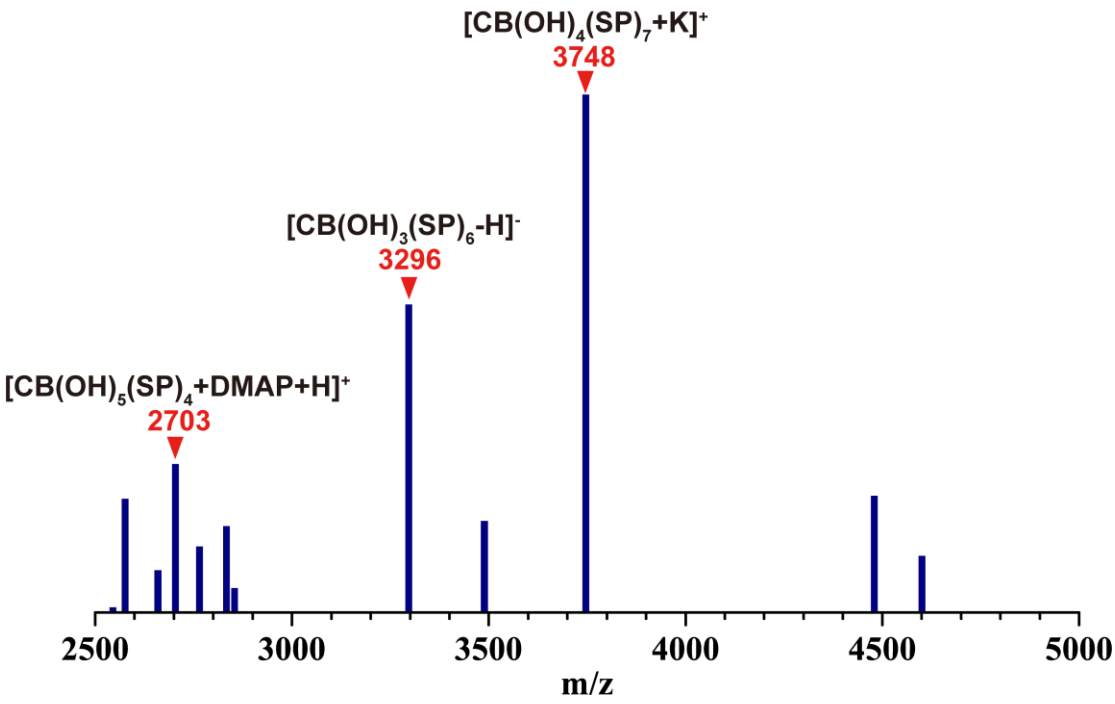

Figure S6. MALDI-TOF mass spectrum of $CB[6]_{SP}$.

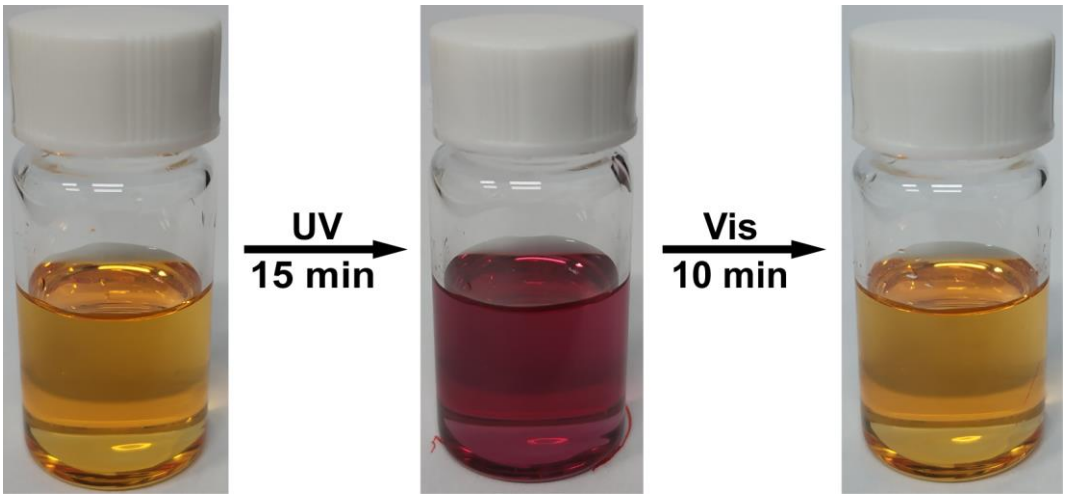

Figure S7. Appearance of a DMSO solution of $CB[6]_{SP}$ (4.0 μM) before and after irradiation with UV light (λ=365 nm) for 15 min, followed by exposure to visible light (λ＞400 nm) for 10 min.

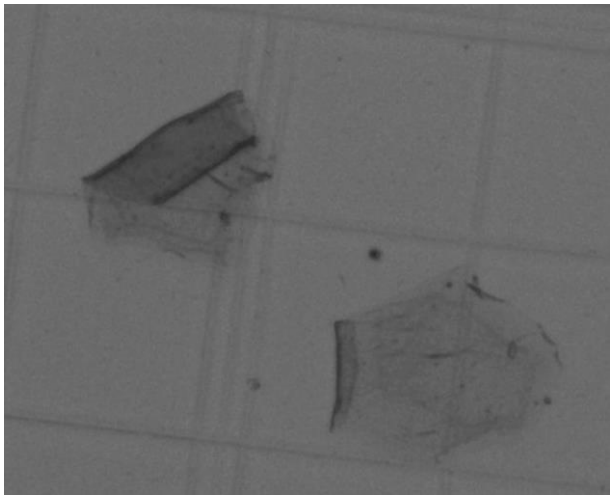

Figure S8. Optical microscope image of the dried 2D-PolyCB[6] shown in Figure 1 (e) after exposed to ambient light for more than six months.