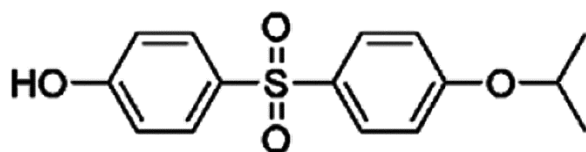


Supplementary Information Document

Structural understanding of solid-state photodimerization reactions of cinnamic amide derivatives in terms of reaction cavities – color developer for thermosensitive paper

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Scheme S1. Molecular structure of the conventional developer **5** (4-isopropoxy-4'-hydroxydiphenyl sulfon)

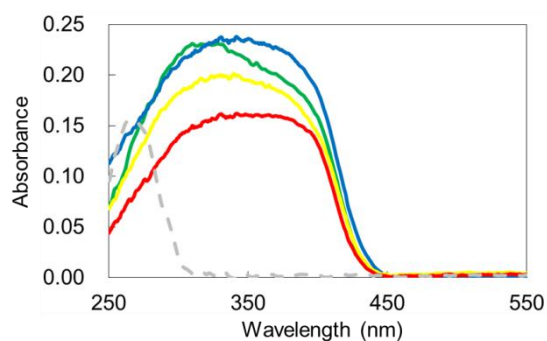


Figure S1. UV/vis spectra of developer **1** (red), **2** (green), **3** (blue), **4** (yellow) and **5** (gray) in the solid state.

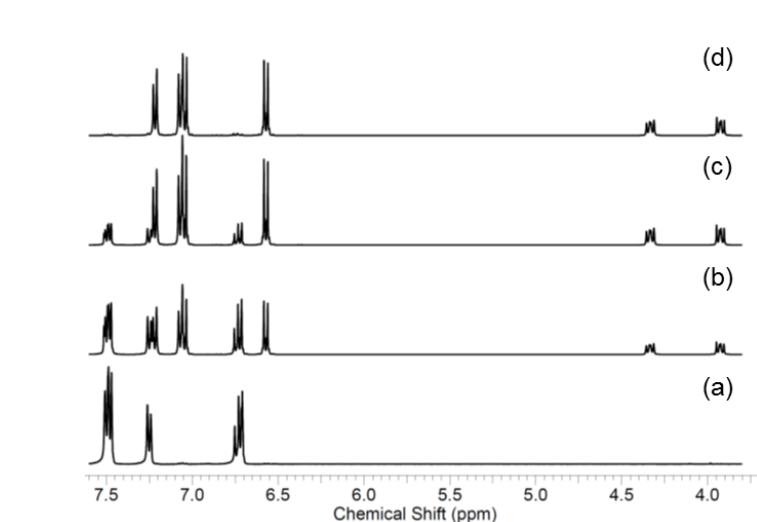


Figure S2. ^1H NMR spectra of **1** in DMSO- d_6 : (a) before photo-irradiation, (b) after photo-irradiation for 1 hour, (c) after photo-irradiation for 2 hours, (d) after irradiation for 5 hours.

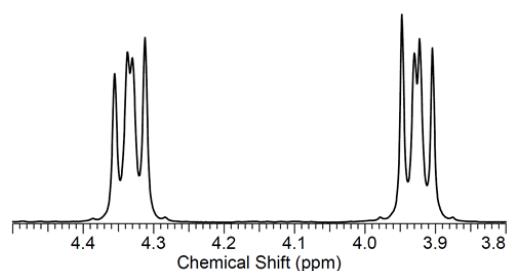


Figure S3. ^1H NMR spectra of **1** after photo-irradiation for 5 hours in DMSO- d_6 .

Compound	θ_1	θ_2	θ_3
1	0.0	101.1	65.1
2	0.0	127.1	74.6
3	0.0	126.9	81.0

Table S1. Overlap parameters for the alignment of the adjacent olefinic double bonds (See REF 25 and 31 for the definition of the overlap parameters).