

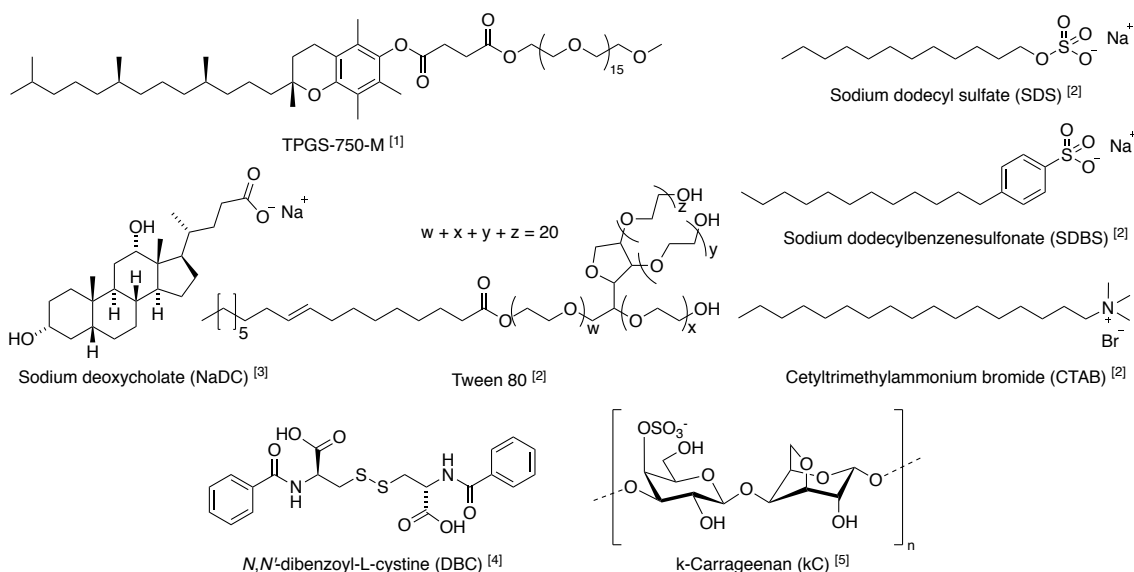
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Supporting Information

## Effect of Reaction Media on Photosensitized [2 + 2]-Cycloaddition of Cinnamates

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## Screening of additional reaction media



**Table S1.** Screening of additional reaction media.<sup>[a]</sup>

Entry	Substrate	Solvent	Soft medium	Type	Conv. <sup>[b]</sup> (%)	d.r. <sup>[b]</sup> (1/2)
1	<b>1a</b>	H <sub>2</sub> O	TPGS-750-M	Micellar	97	3:1
2 <sup>[c]</sup>	<b>1a</b>	H <sub>2</sub> O/toluene	TPGS-750-M	Micellar	99	3.5:1
3 <sup>[d]</sup>	<b>1b</b>	H <sub>2</sub> O	TPGS-750-M	Micellar	100	0.6:1
4 <sup>[c][d]</sup>	<b>1c</b>	H <sub>2</sub> O/toluene	TPGS-750-M	Micellar	99	0.6:1
5	<b>1d</b>	H <sub>2</sub> O	TPGS-750-M	Micellar	100	1:1
8	<b>1f</b>	H <sub>2</sub> O/toluene	TPGS-750-M	Micellar	100	3.4:1
9 <sup>[d]</sup>	<b>1e</b>	H <sub>2</sub> O	TPGS-750-M	Micellar	7	0:1
10	<b>1a</b>	H <sub>2</sub> O	SDBS	Micellar	100	3:1
11 <sup>[d]</sup>	<b>1e</b>	H <sub>2</sub> O	SDBS	Micellar	13	1:4
12	<b>1a</b>	H <sub>2</sub> O	NaDC	Micellar	100	3:1
13 <sup>[d]</sup>	<b>1e</b>	H <sub>2</sub> O	NaDC	Micellar	6	0:1
14	<b>1a</b>	H <sub>2</sub> O	CATB	Micellar	100	3:1
15 <sup>[d]</sup>	<b>1e</b>	H <sub>2</sub> O	CATB	Micellar	10	0:1
16	<b>1a</b>	H <sub>2</sub> O	Tween 80	Micellar	100	3:1
17 <sup>[e]</sup>	<b>1a</b>	H <sub>2</sub> O/DMSO	DBC	Physical gel	95	3.2:1
18 <sup>[f]</sup>	<b>1a</b>	H <sub>2</sub> O/MeOH	kC	Polymer gel	99	3.5:1

[a] Reaction conditions: Cinnamate (0.5 mmol), Ir(dF(CF<sub>3</sub>)ppy)<sub>2</sub>(dtb-bpy)PF<sub>6</sub> (1.0 mol%), solvent (1 mL), LED<sub>455</sub>, 24 h, room temperature. [b] Determined by <sup>1</sup>H-NMR analysis of the reaction crude. [c] Five drops of toluene were added. [d] Cinnamate amount = 0.25 mmol. [e] Ratio H<sub>2</sub>O:DMSO = 9:1 (v/v); [DBC] = 3 g·L<sup>-1</sup>. [f] Five drops of MeOH were added; [kC] = 20 g·L<sup>-1</sup>.

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