Supplementary Information

## Synthesis of Photo-Cross-Linkable Starch by Etherification with Cinnamyl Units

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Figure S1. <sup>13</sup>C-NMR spectrum of CS1



Figure S2. <sup>13</sup>C CPMAS NMR spectra of samples CS1-3 and PS and CINN-Cl as references.



Figure S3. XRD patterns of yuca starch (PS) and functionalized starch (CS1), as representative.



**Figure S4**. a) Solution-phase (water) UV-Vis normalized spectra of native yuca starch (green line), starch cinnamyl ether (sample CS1, violet line) and CINN-Cl precursor (black line); b) UV-DRS spectra of pristine starch material (green curve) and starch cinnamyl ether with the highest DS (sample CS3, red line).



Figure S5. <sup>13</sup>C-NMR spectrum of CS2 dissolved in DMSO-d6 after 60 hours at 365 nm



Figure S6. <sup>1</sup>H-<sup>13</sup>C HSQC spectrum of CS2 dissolved in DMSO-d6 after irradiation at 365 nm