

Supporting Information

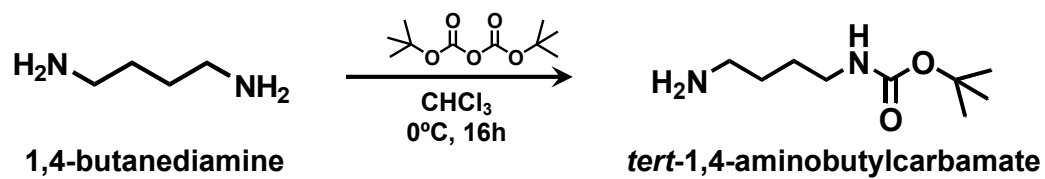
Photoresponsive Gelation of Four-Armed Poly(ethylene glycol) with Photodimerizable Groups

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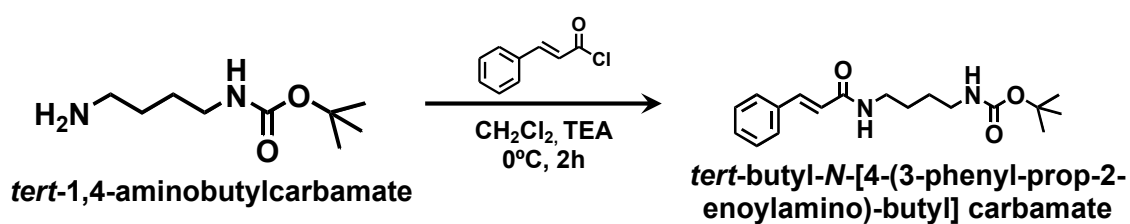
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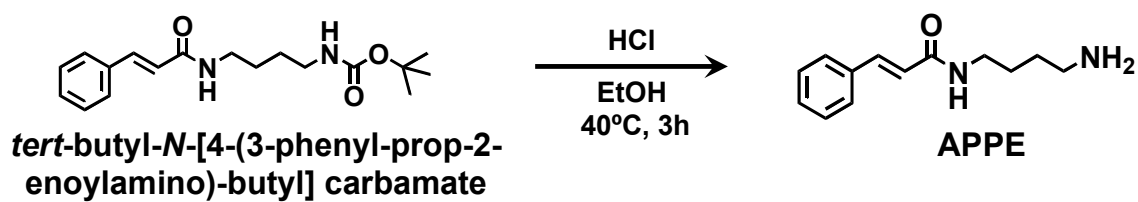
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Scheme S1. Synthesis of *tert*-1,4-aminobutylcarbamate.



Scheme S2. Synthesis of *tert*-butyl-*N*-[4-(3-phenyl-prop-2-enoylamino)-butyl] carbamate.



Scheme S3. Synthesis of *N*-(4-aminobutyl)-3-phenyl-prop-2-enamide (APPE).

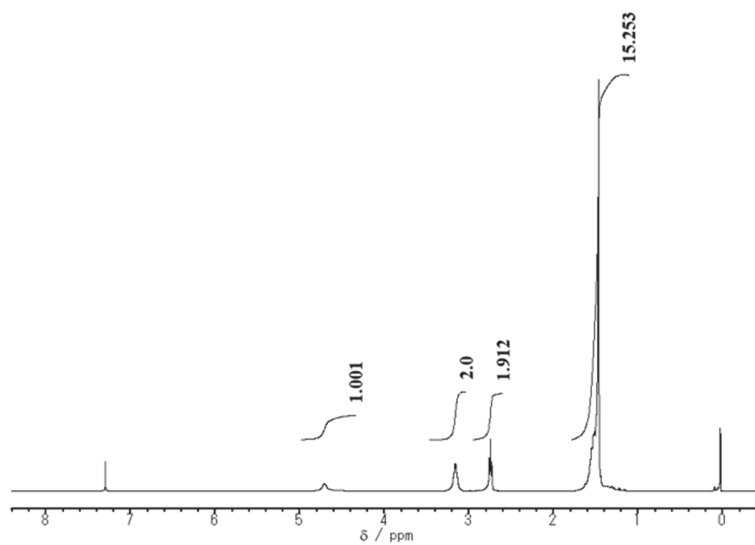


Figure S1. ^1H NMR spectrum of *tert*-1,4-aminobutylcarbamate (400 MHz, CDCl_3 , 32 times).

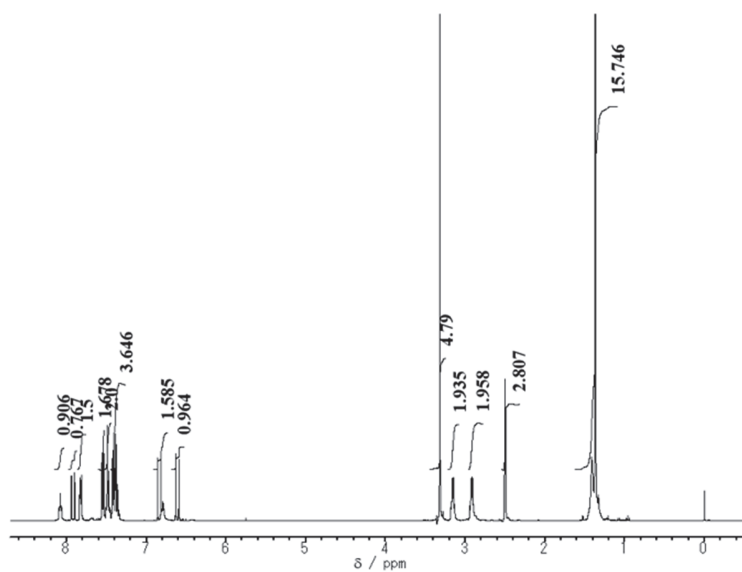


Figure S2. ^1H NMR spectrum of *tert*-butyl-N-[4-(3-phenyl-prop-2-enoylamino)-butyl] carbamate (400 MHz, CDCl_3 , 32 times).

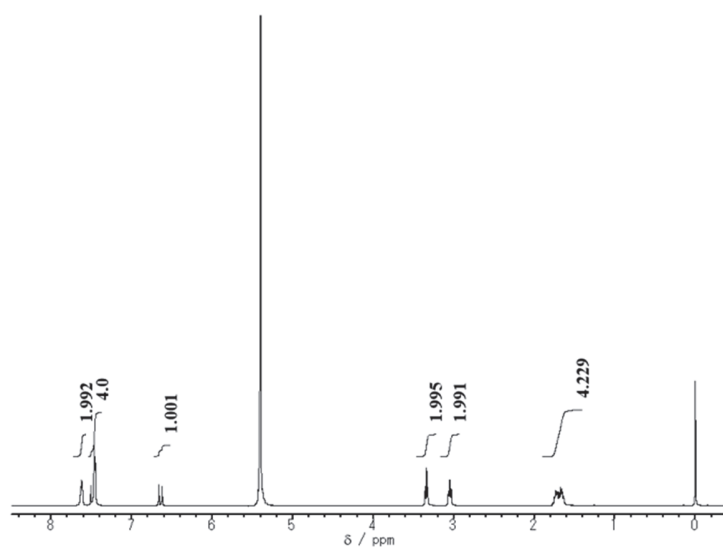


Figure S3. ^1H NMR spectrum of *N*-(4-aminobutyl)-3-phenyl-prop-2-enamide (APPE) (400 MHz, D_2O , TMS, 32 times).

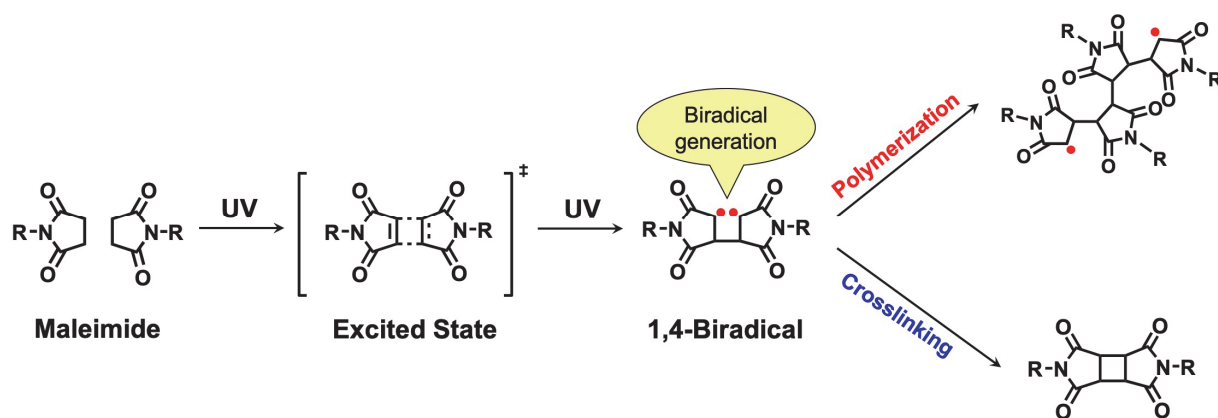


Figure S4. Reaction mechanism for the photodimerization of the maleimide groups of maleimide-tetra-PEG.