

Building biobased, degradable, flexible polymer networks from vanillin *via* thiol-ene “click” photopolymerization

Meiying Ge,^a Jia-Tao Miao,^{*,a} Kai Zhang,^b Yadong Wu,^{a,c} Longhui Zheng^a and Lixin Wu^{*,a}

^a CAS Key Laboratory of Design and Assembly of Functional Nanostructures, Fujian Key Laboratory of Nanomaterials, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fuzhou 350002, China.

^b Zhicheng College, Fuzhou University, Fuzhou 350002, China.

^c University of Chinese Academy of Sciences, Beijing 100049, China.

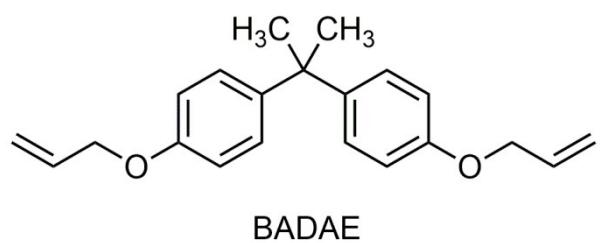
Corresponding Authors

*E-mail: jiataomiao@outlook.com (J.-T.M.)

*E-mail: lxwu@fjirsm.ac.cn (L.W.)

Index

Scheme S1 Chemical structures of BADAЕ.	S3
Fig. S1 DSC curves of BAMTU under a nitrogen atmosphere with a heating rate of 20 °C min ⁻¹	S3
Fig. S2 FTIR spectra of vanillin, AMB and BAMTU.....	S3
Fig. S3 ¹ H NMR (top) and ¹³ C NMR (bottom) spectra of AMB.....	S4
Fig. S4 HSQC spectra of BAMTU	S4
Fig. S5 HRMS of AMB.....	S5
Fig. S6 HRMS of BAMTU	S5
Fig. S7 Degradation of BADAЕ-SH3.	S6
Fig. S8 ¹ H NMR spectra of BAMTU-SH3 (DMSO- <i>d</i> ₆) after degradation in acetic acid/water (1/1, v/v) solution.	S6



Scheme S1 Chemical structures of BADAЕ.

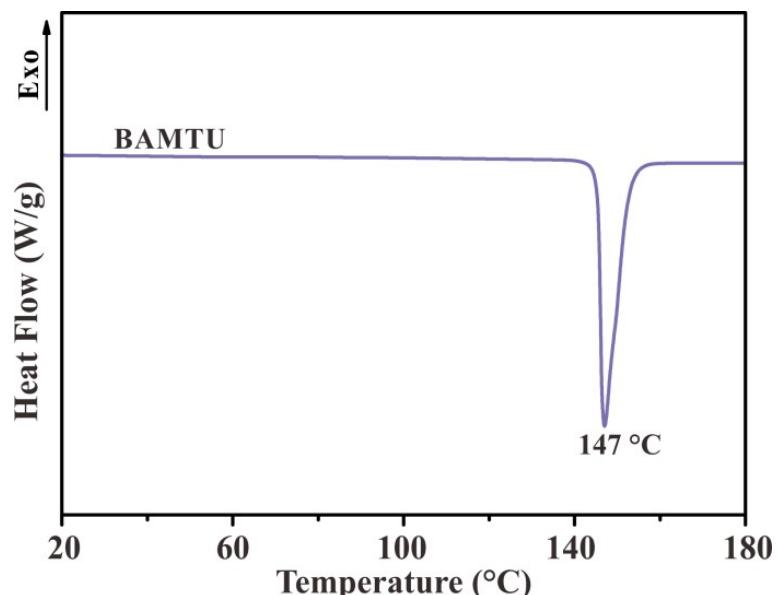


Fig. S1 DSC curves of BAMTU under a nitrogen atmosphere with a heating rate of 20 °C min⁻¹.

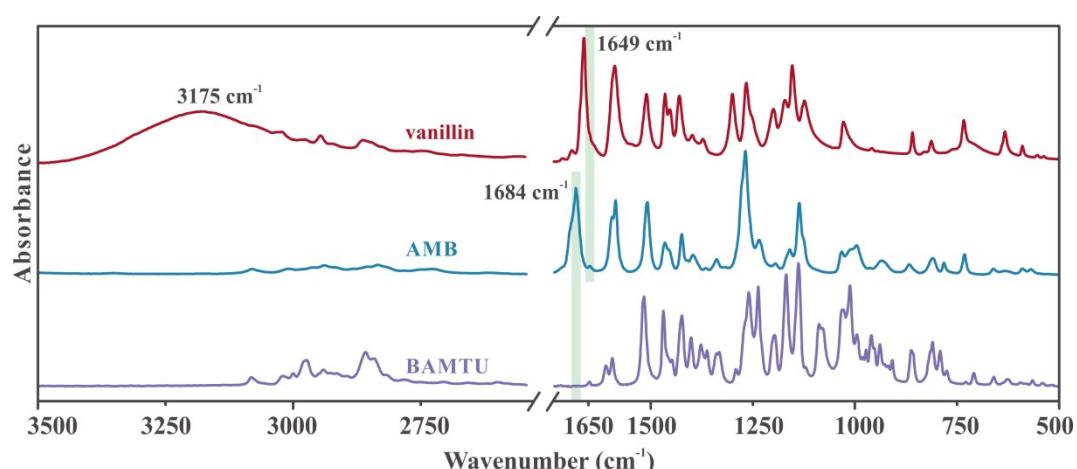


Fig. S2 FTIR spectra of vanillin, AMB and BAMTU.

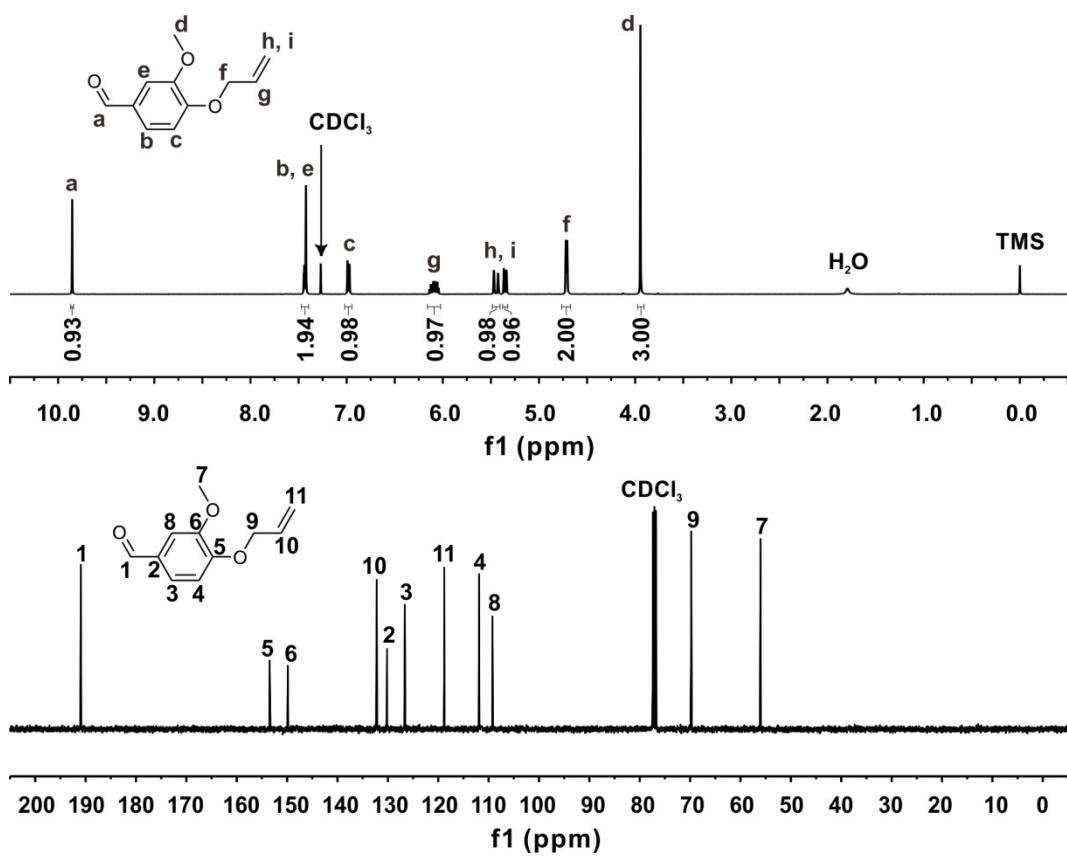


Fig. S3 ^1H NMR (top) and ^{13}C NMR (bottom) spectra of AMB.

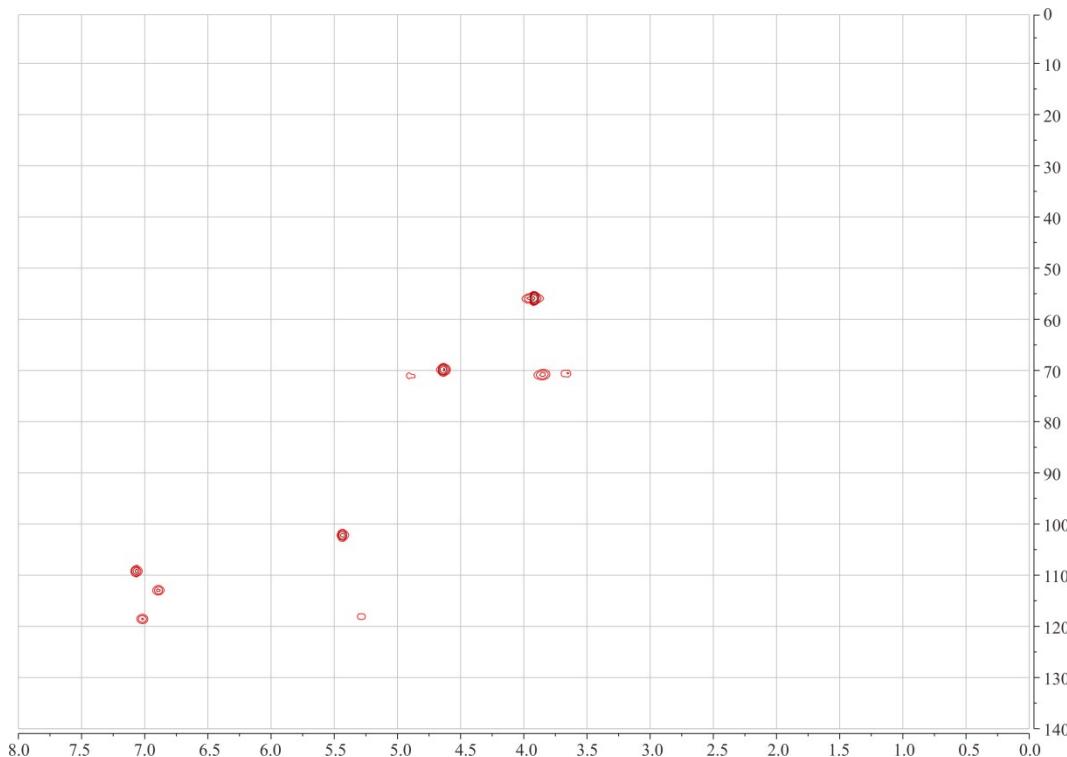


Fig. S4 HSQC spectra of BAMTU.

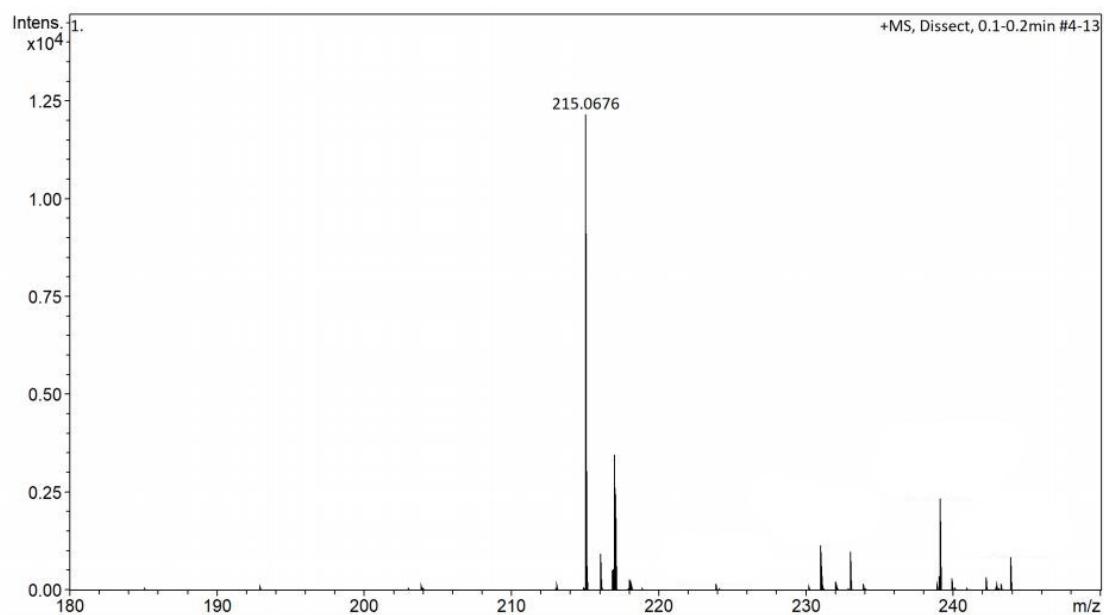


Fig. S5 HRMS of AMB.

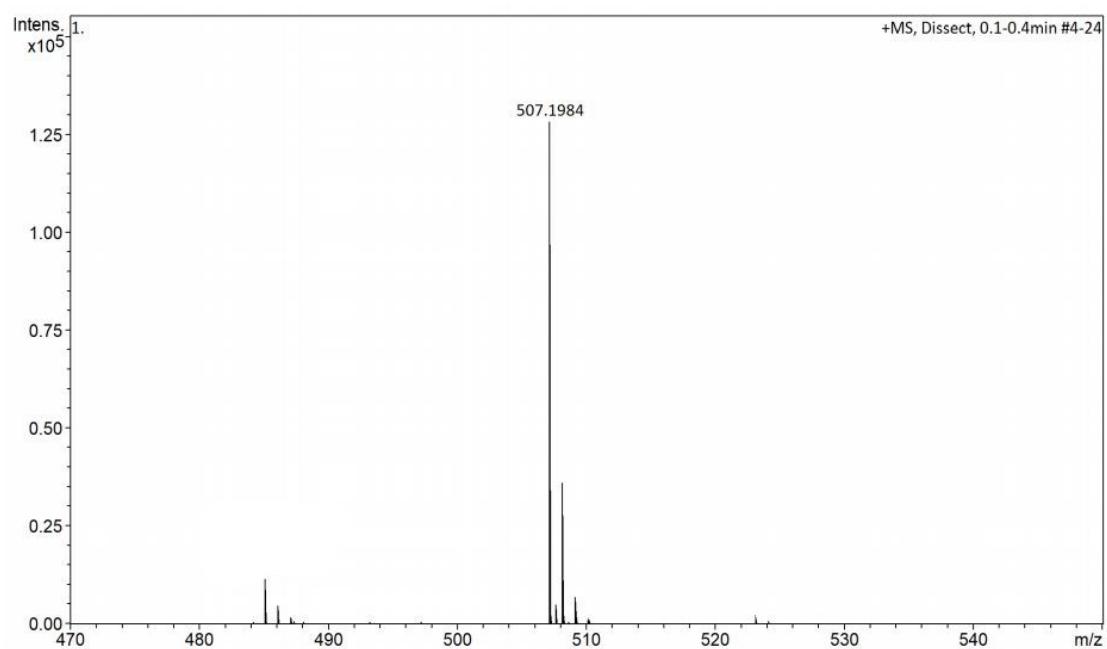


Fig. S6 HRMS of BAMTU.



Fig. S7 Degradation of BADA-E-SH3.

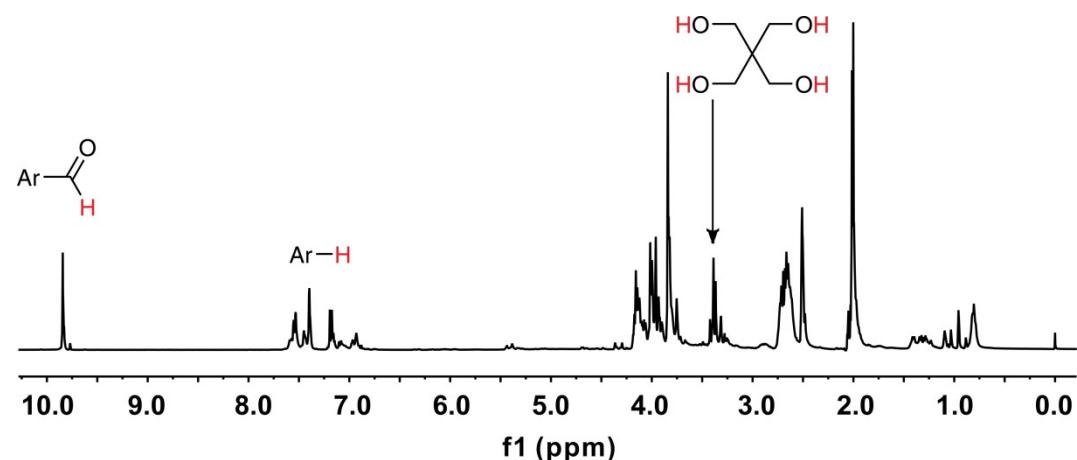


Fig. S8 ^1H NMR spectra of BAMTU-SH3 ($\text{DMSO}-d_6$) after degradation in acetic acid/water (1/1, v/v) solution.