

Supporting Information

Self-healing zwitterionic sulfobetaine nanocomposite hydrogels with good mechanical properties

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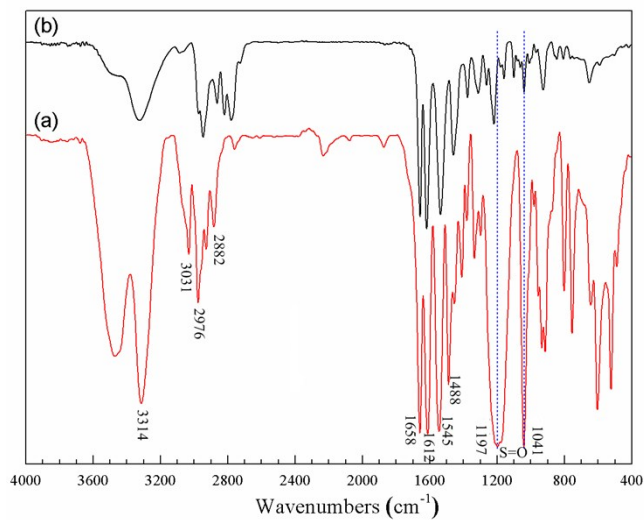


Figure S1 FTIR spectra of sulfobetaine zwitterionic monomer DMAPMAPS (a) and DMAPMA (b).

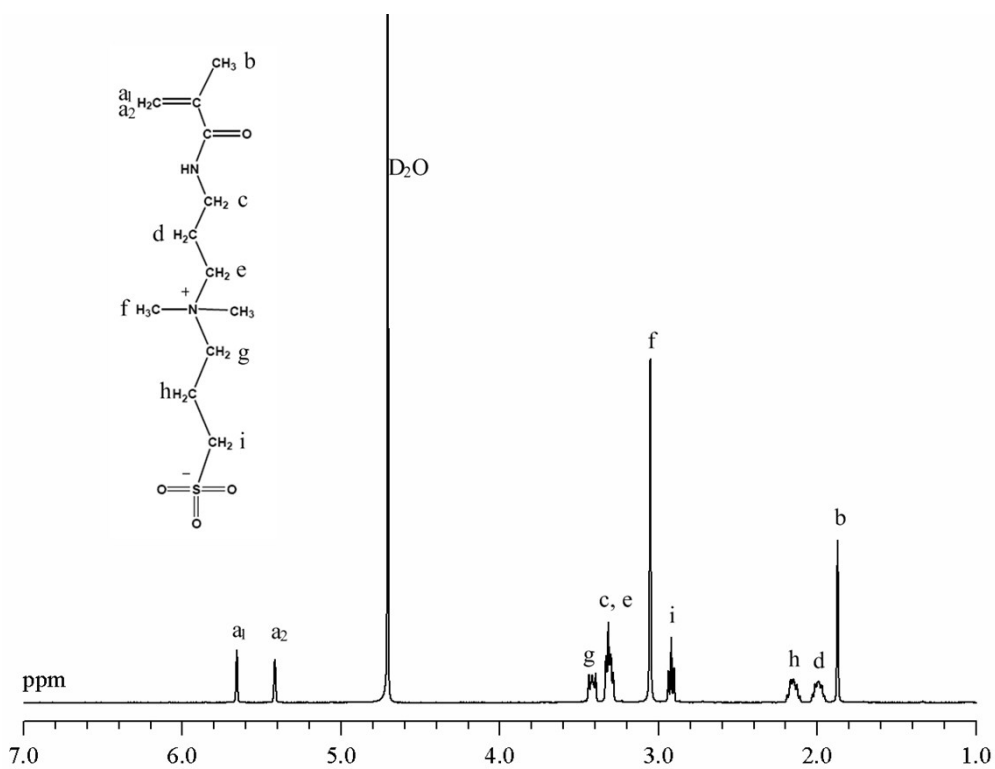


Figure S2 ^1H NMR spectrum of zwitterionic sulfobetaine monomer DMAPMAPS.

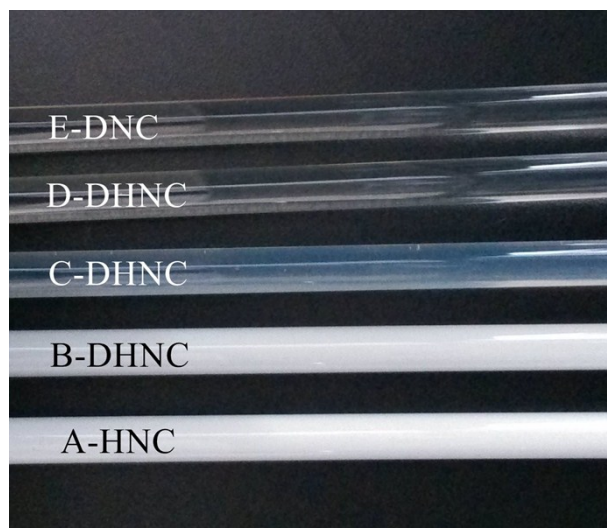


Figure S3 Appearance of the nanocomposite hydrogels with different the weight ratio of DMAPMAPS/HEMA.

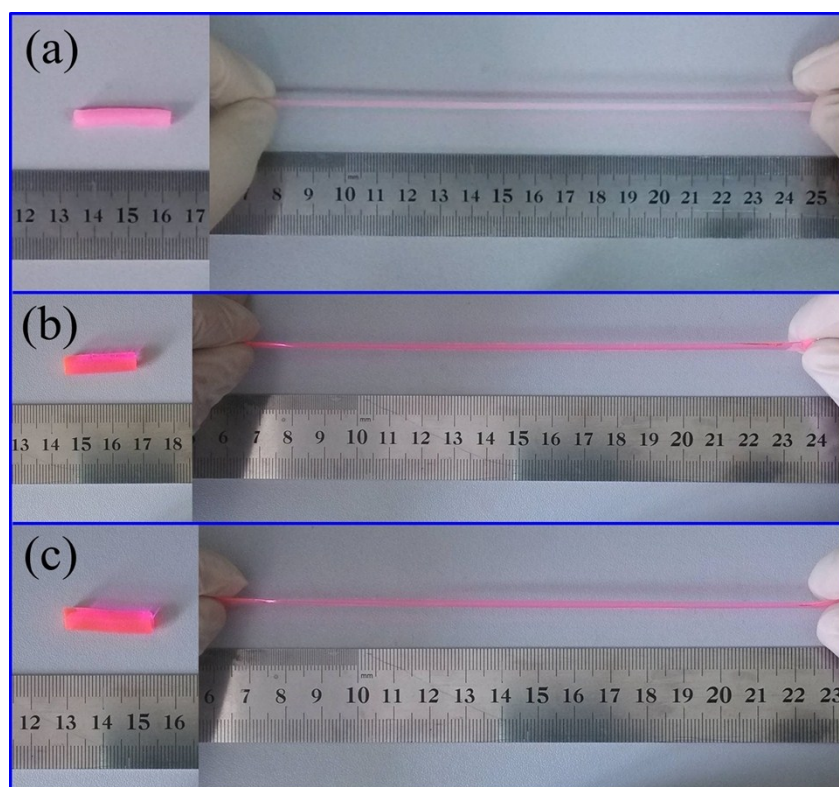


Figure S4 Photographs before and after stretching of the nanocomposite hydrogels. B-DHNC(a), C-DHNC(b) and D-DHNC(c).

Table S1 The mechanical properties of the nanocomposite hydrogels before cutting and after self-healing.

Sample	Tensile strength (kPa) (before cutting)	Tensile strength (kPa) (after self-healing)	Elongation at break (%) (before cutting)
B-DHNC3	148	140	1018
B-DHNC5	160	142	741
B-DHNC7	168	146	659
C-DHNC3	94	87	2114
C-DHNC5	145	137	1992
C-DHNC7	151	134	1379
D-DHNC3	67	56	2270
D-DHNC5	114	106	2322
D-DHNC7	119	98	1603