Electronic Supplementary Material (ESI) for Soft Matter.

Self-healable poly(acrylic acid-co-maleic acid)/glycerol/boron nitride nanosheets composite hydrogels at low temperature with enhanced mechanical property and water retention

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Table S1 The ingredients of G_xB_y-hydrogels

	AA (mL)	MA (mg)	BIS (mg)	KPS (mg)	$FeCl_3$ (mg)	Water/BN-NH_2 dispersions (mL)	Glycerol (mL)
G_0B_y	1.5	196	10	40	40	10	0
G_1B_y	1.5	196	10	40	40	9.9	0.1
$G_{2.5}B_y$	1.5	196	10	40	40	9.75	0.25
G_5B_y	1.5	196	10	40	40	9.5	0.5
$G_{12.5}B_y$	1.5	196	10	40	40	8.75	1.25
$G_{25}B_y$	1.5	196	10	40	40	7.5	2.5
$G_{50}B_y$	1.5	196	10	40	40	5	5

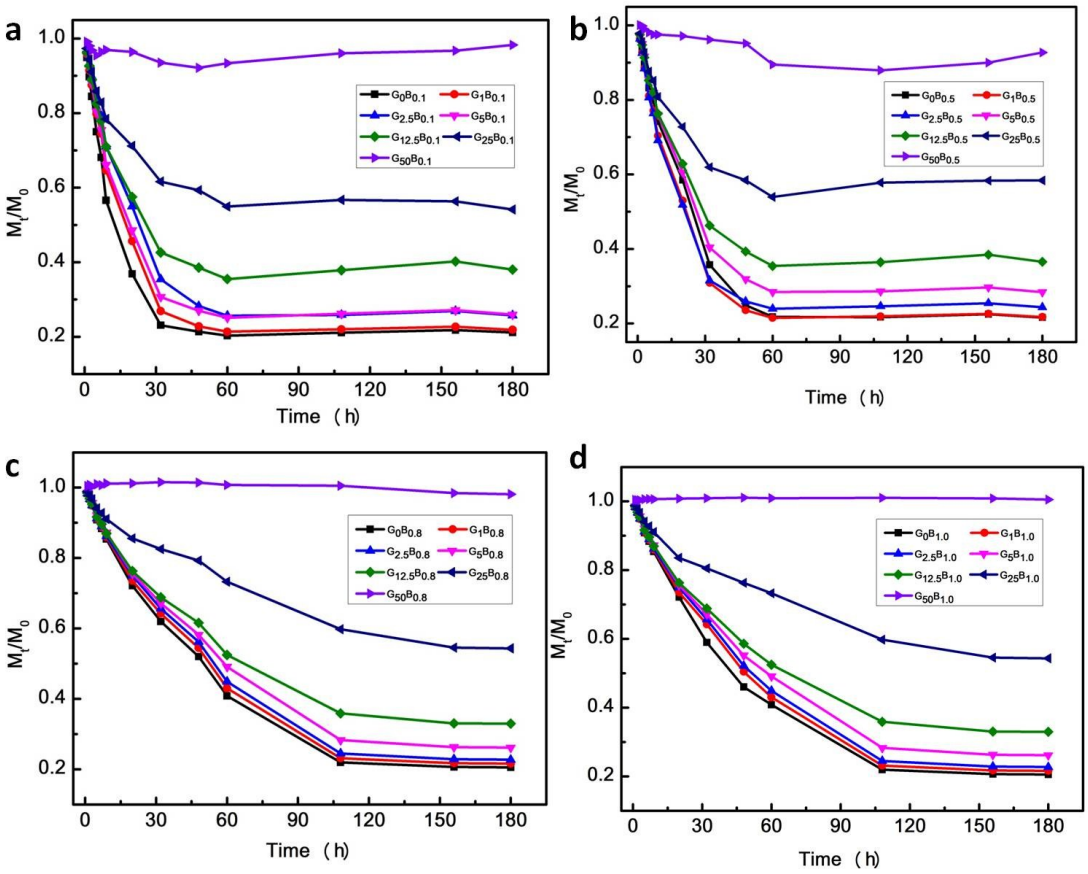

Fig. S1 The weight changes of (a) $G_xB_{0.1}$-hydrogels, (b) $G_xB_{0.5}$-hydrogels, (c) $G_xB_{0.8}$-hydrogels and (d) $G_xB_{1.0}$-hydrogels as a function time (M_0 is the initial weight and M_t is the weight at different time).

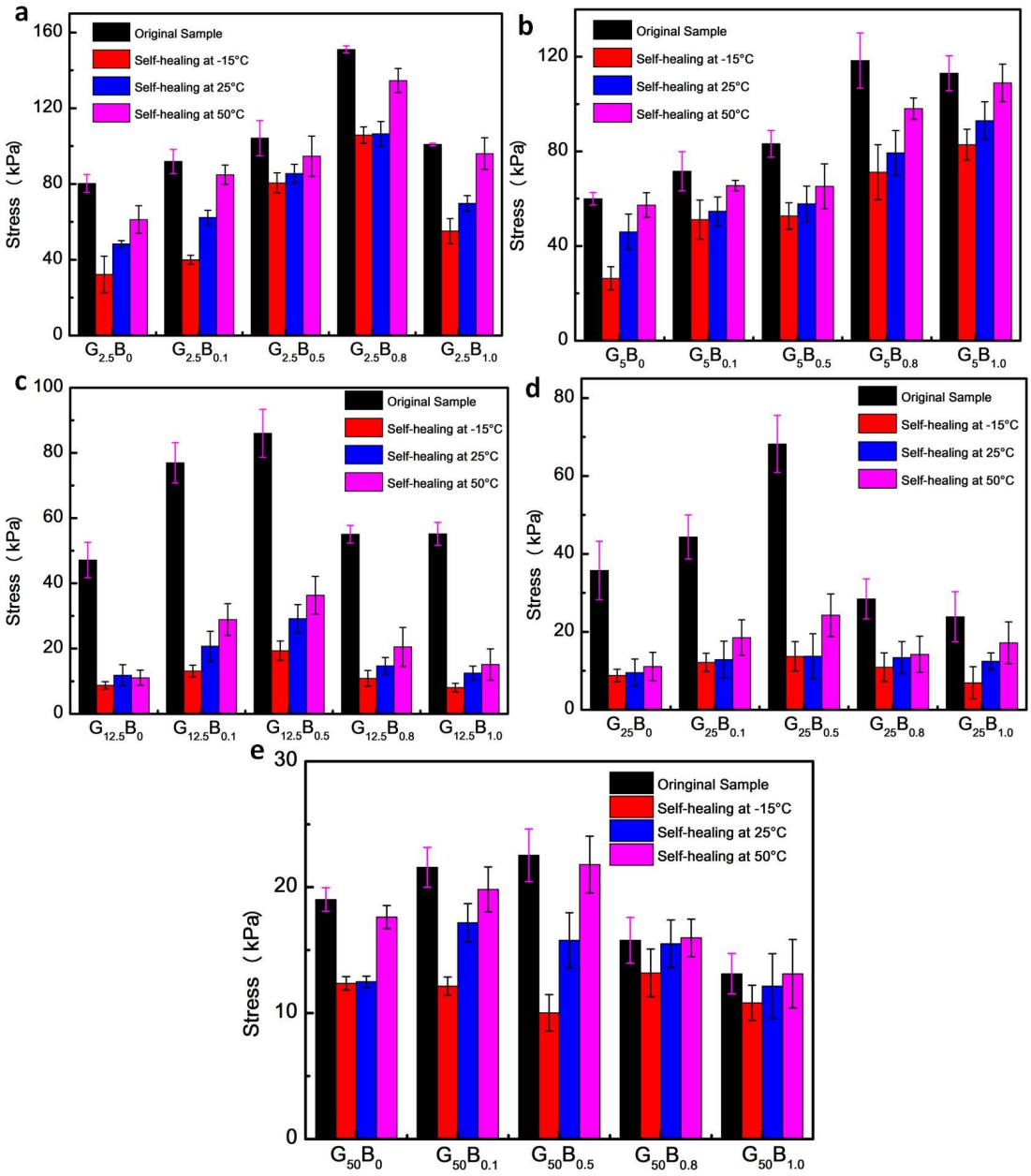

Fig. S2 The tensile strength of the original and their self-healed (a) $G_{2.5}B_y$-hydrogels, (b) G_5B_y-hydrogels, (c) $G_{12.5}B_y$-hydrogels, (d) $G_{25}B_y$-hydrogels and (e) $G_{50}B_y$-hydrogels at -15 °C, 25 °C and 50 °C for 24 h.