Supporting Information for

Ultrasensitive and Highly Stretchable Multiple-Crosslinked Ionic Hydrogel Sensors with Long-Term Stability

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Supplementary Figures and Tables

Fig. S1 Hydrogel composition

Recipe	Monomer	SBMA	AAm
#1	g	0.000	1.200
	m	0.000	5.627
#2	g	0.276	1.129
	m	0.329	5.298
#3	g	0.553	1.059
	m	0.660	4.967
#4	g	0.838	0.986
	m	1.000	4.627
#5	g	1.106	0.918
	m	1.320	4.307

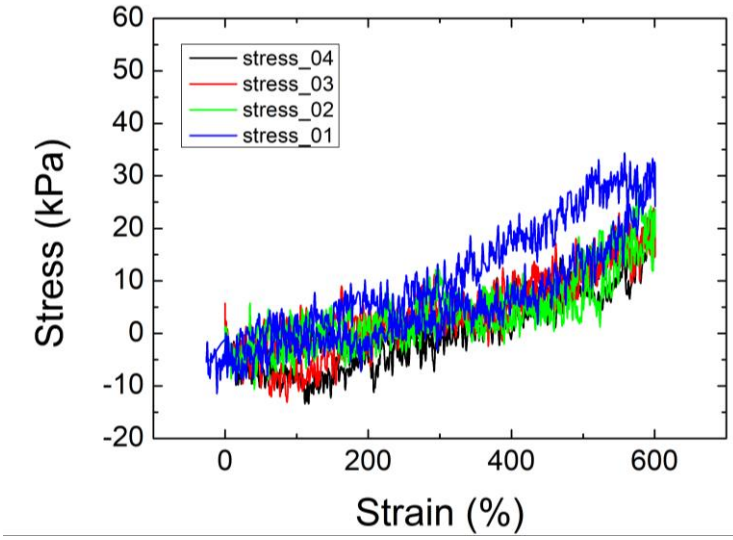

Fig. S2 #4 Stress–strain curve. Reciprocating stress was measured for a strain of up to approximately 600%

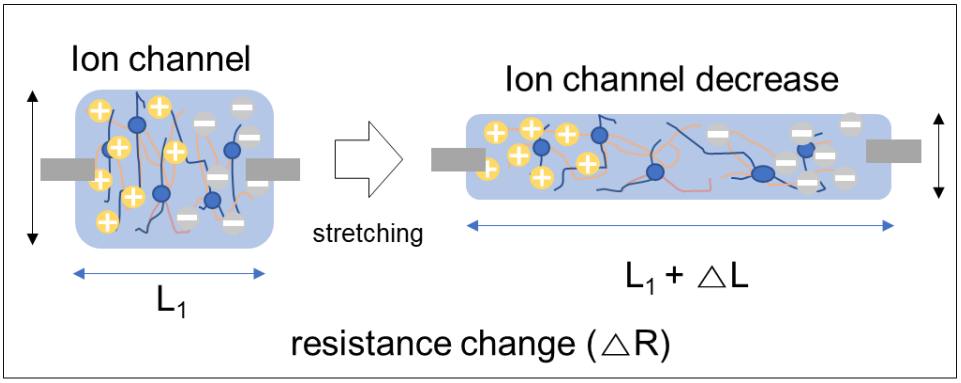

Fig. S3 Principle of hydrogel strain sensor

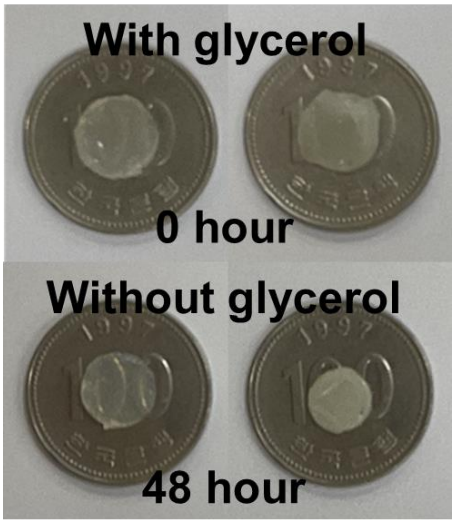

Fig. S4 Volume change of hydrogel #4 and hydrogel #4 with glycerol removed over 48 h

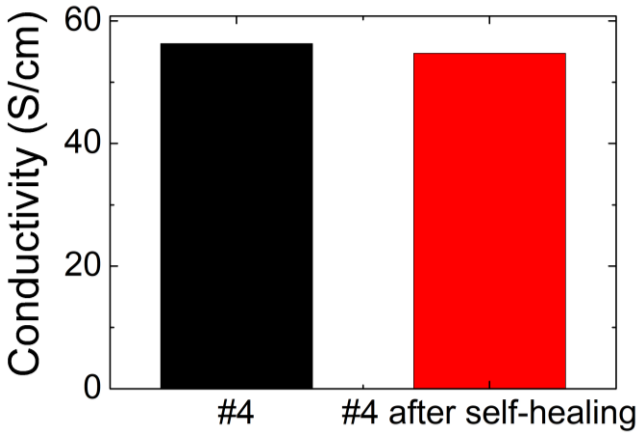

Fig. S5 Conductivity of hydrogel #4 before and after self-healing

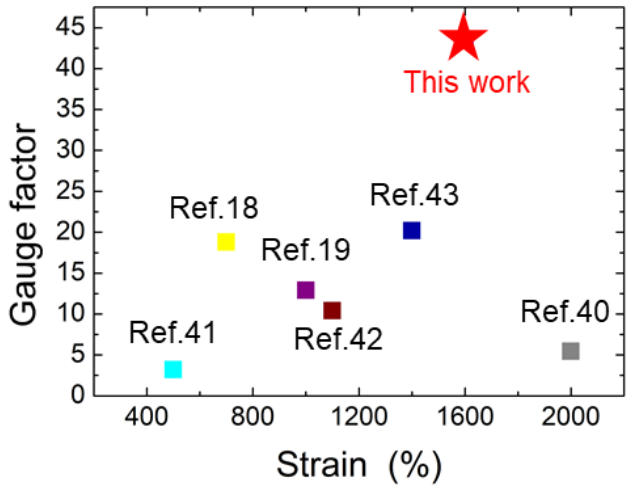

Fig. S6 Comparison of GFs of multiple-crosslinked P(SBMA-co-Aam) hydrogel sensors at different strain with those previously reported sensors

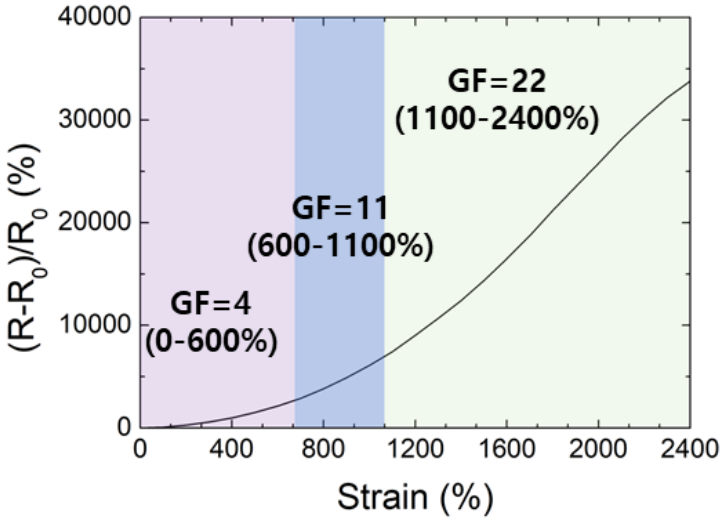

Fig. S7 GF of multiple-crosslinked P(SBMA-co-AAm) #1 hydrogel sensors at different strain sections