

Supporting Information

Super-Stretchable, Recoverable, Elastic and High-voltage Ionic Conductive Hydrogel for Wireless Wearable Stretchable Sensor

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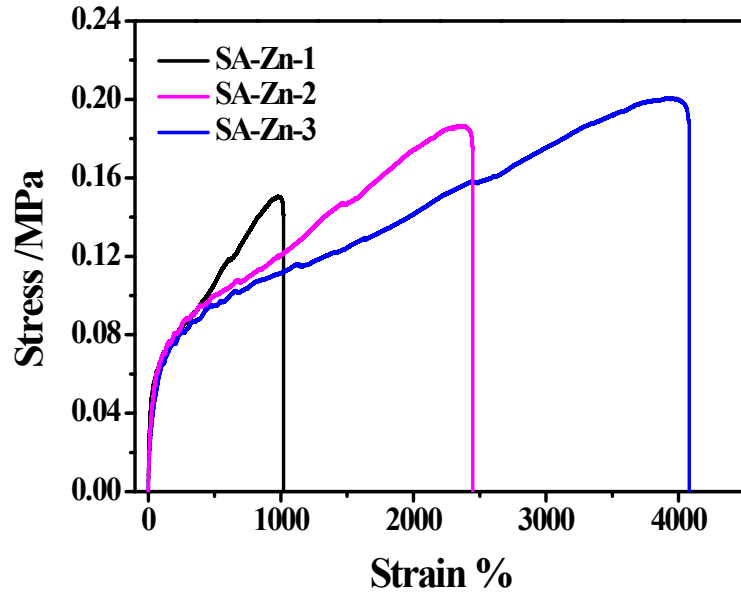


Figure S1. Control experiments of mechanical properties for SA-Zn (0.1-0.3 g).

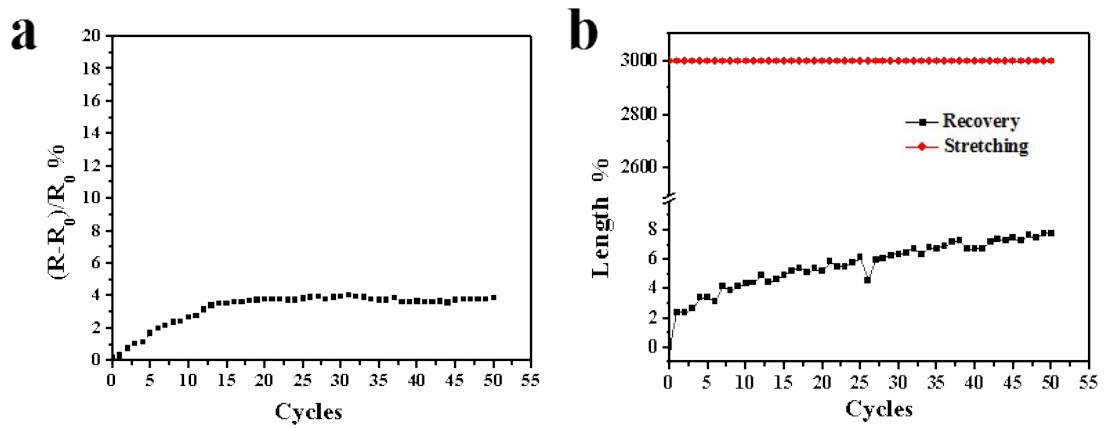


Figure S2. Reuseability of SA-Zn: during 50 cycles self-recovery processes with 3000% strain, the changes of resistance (a) and length (b).

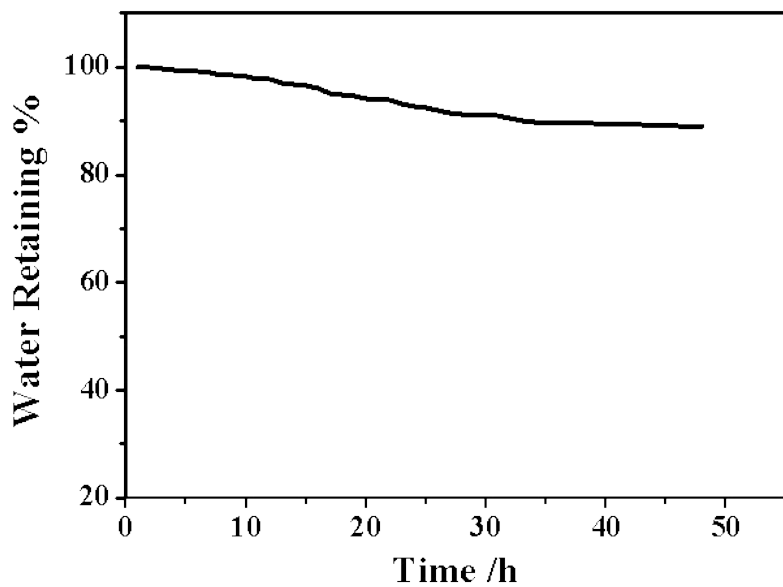


Figure S3. Water retaining property of SA-Zn hydrogel.

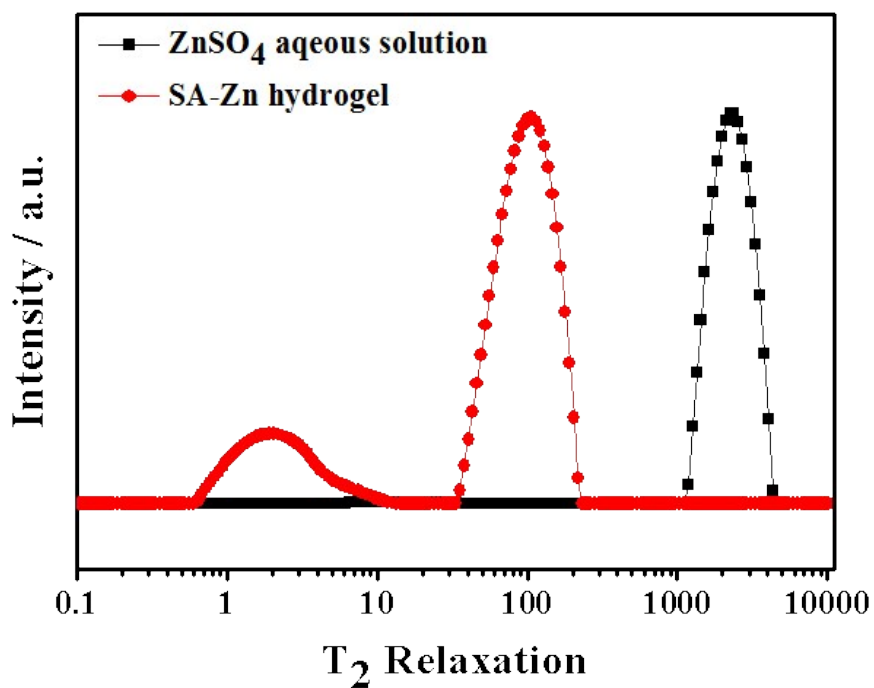


Figure S4. The reciprocal of spin-spin relaxation time of ZnSO₄ aqueous solution and SA-Zn hydrogel. T₂: (<10 ms), bond water; T₂: (10-100 ms), intermediate water; T₂: (>1000 ms), free water.

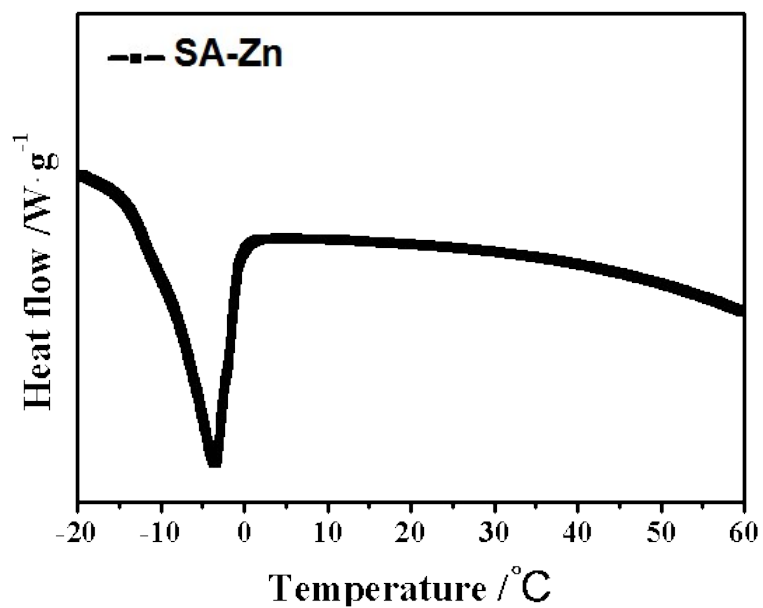


Figure S5. DSC thermogram of SA-Zn hydrogel.

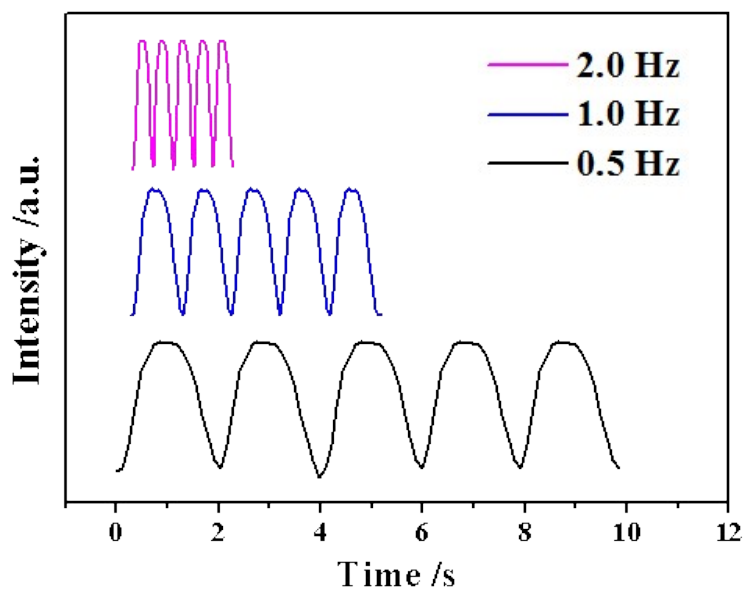


Figure S6. Response frequency of SA-Zn hydrogel.

Table S1. Comparison of this study with stretchable hydrogels sensor reported in the literature.

Tensile strain	Working Voltage	Recovery	Reference
(%)	(V)	(%, Time)	
4273	-2.5-2.5 V	100%, 20min	This work
1800	0.5 V	100%,	[1]
3400	/	/	[2]
625	/	80%, 15min	[3]
500	1 V	/	[4]
1700	/	90%, 4h	[5]
850	/	87.6%, 4h	[6]
400%	/	70.5%, 37°C, 24h	[7]
1000%	/	100%, 90°C, 20min	[8]

References

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