Supporting Information

Application of super-stretched self-healing elastomer based on methyl

vinyl silicone rubber for wearable electronic sensors

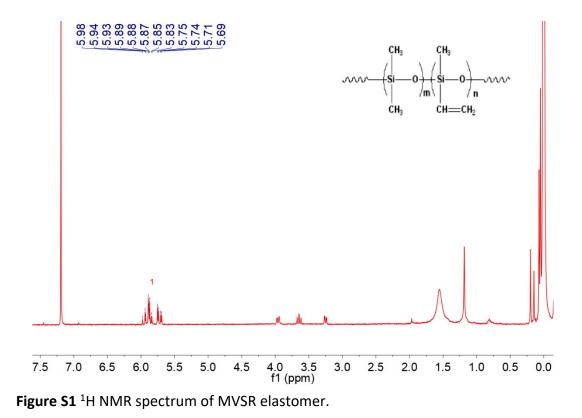
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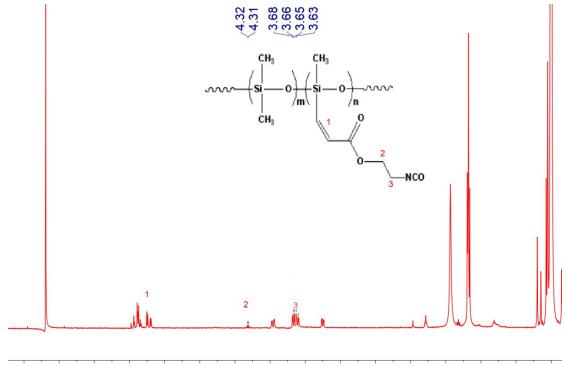
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7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 f1 (ppm) Figure S2 ¹H NMR spectrum of MVSR-ICA elastomer.

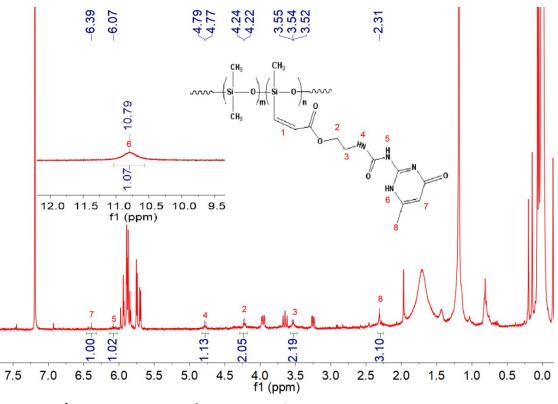


Figure S3 ¹H NMR spectrum of MVSR-UPY elastomer.

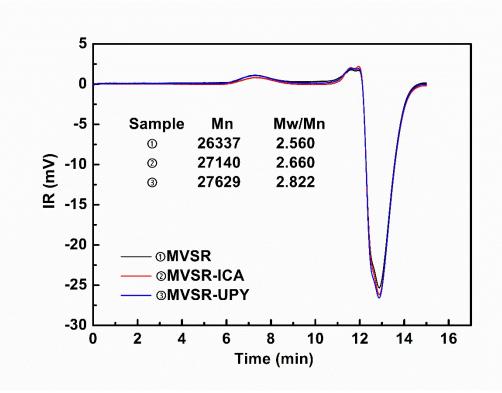


Figure S4 GPC curves of MVSR, MVSR-ICA and MVSR-UPY.

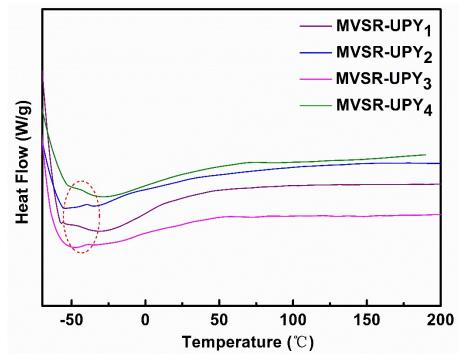


Figure S5 DSC curve of MVSR-UPY with different molar ratios.

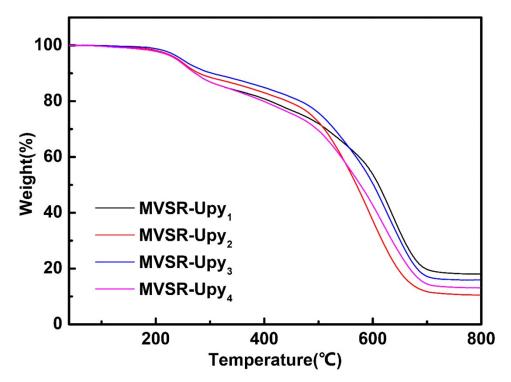


Figure S6 TGA curves of MVSR-UPY with different molar ratios.

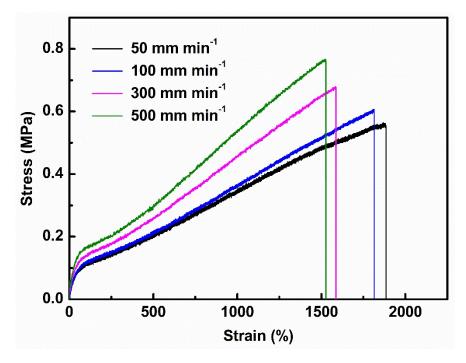


Figure S7 Stress-strain curves of $MVSR-UPY_3$ at different tensile rates.

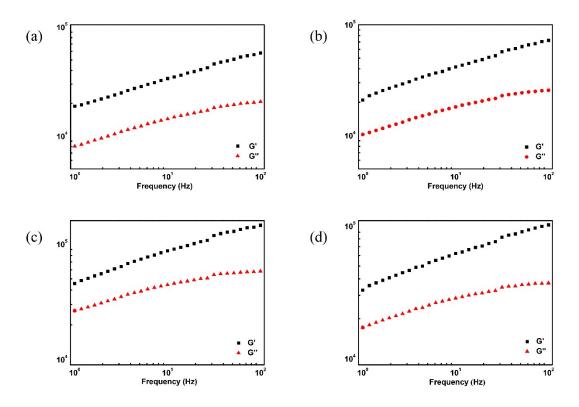


Figure S8 Frequency sweeping of storage (G') and loss (G'') moduli of the elastomer (a) $MVSR-UPY_1$ (b) $MVSR-UPY_2$ (c) $MVSR-UPY_3$ (d) $MVSR-UPY_4$.

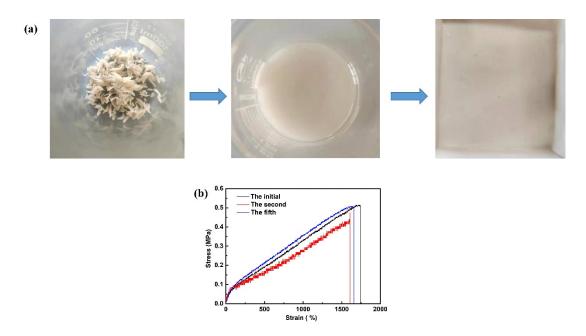


Figure S9. Recovery and reprocessing performance of MVSR-UPY elastomers. (a)The reprocessing of elastomers, (b) Stress-strain curves of MVSR-UPY elastomers with different processing times at a tensile rate of 100 mm min⁻¹.

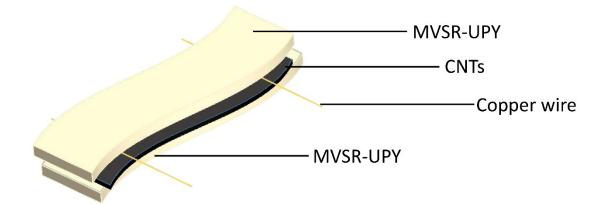


Figure S10 Schematic diagram of sensor structure

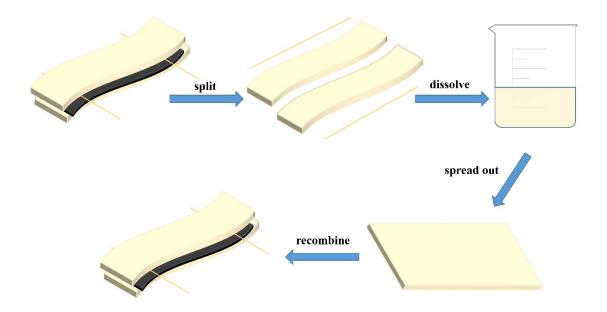


Figure S11 Schematic diagram of sensor recovery and reorganization.