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Supporting Information

Towards a tough reprocessable and self-healable acrylonitrile–butadiene rubber based on strong hydrogen bonding interaction

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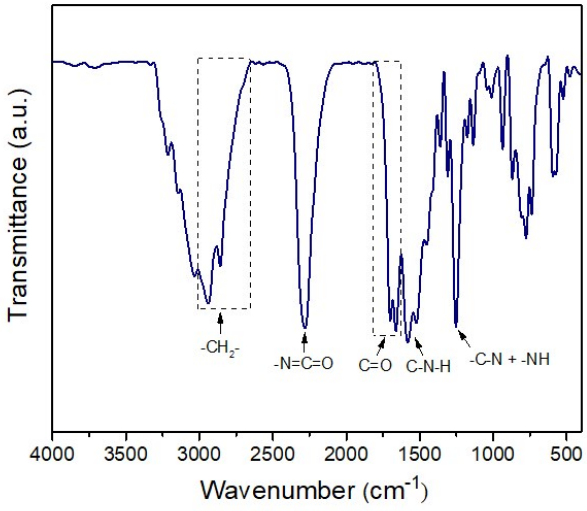

Fig. S1. FTIR spectrum of 2-(6-isocyanato-hexylaminocarbonylamino)-6-methyl-4[1H]-pyrimidone.

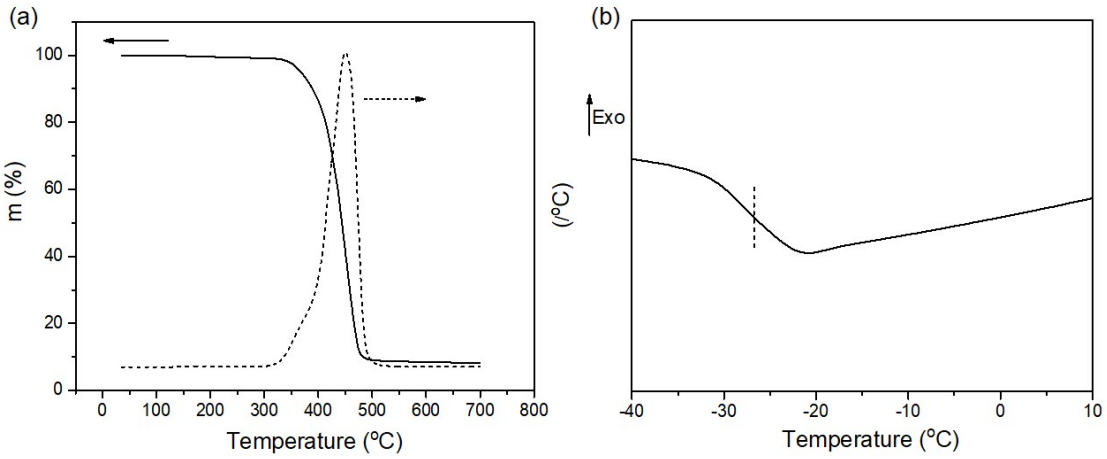

Fig. S2. (a) Thermogravimetric analysis curve and differential thermogravimetry analysis curves of NBR. (c) DSC curve of NBR.

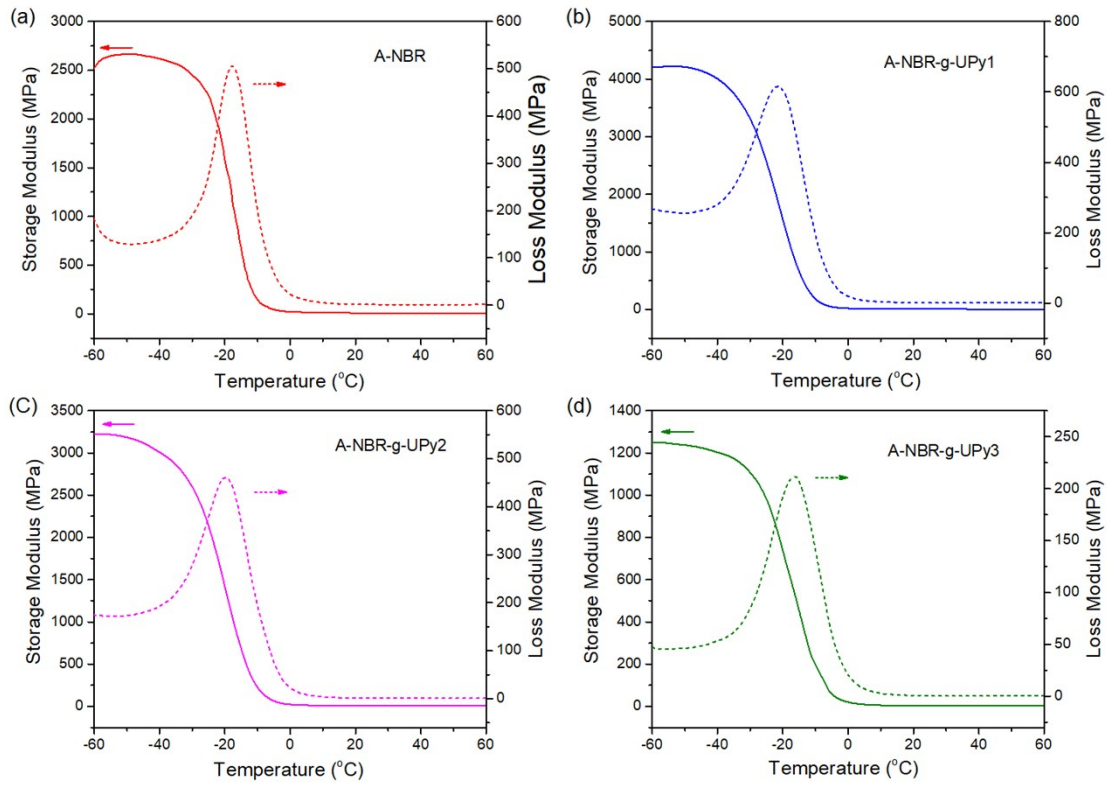

Fig. S3. The DMA storage and loss modulus curves of the amidoximated NBR and the UPy grafted amidoximated NBR samples varying with temperature.

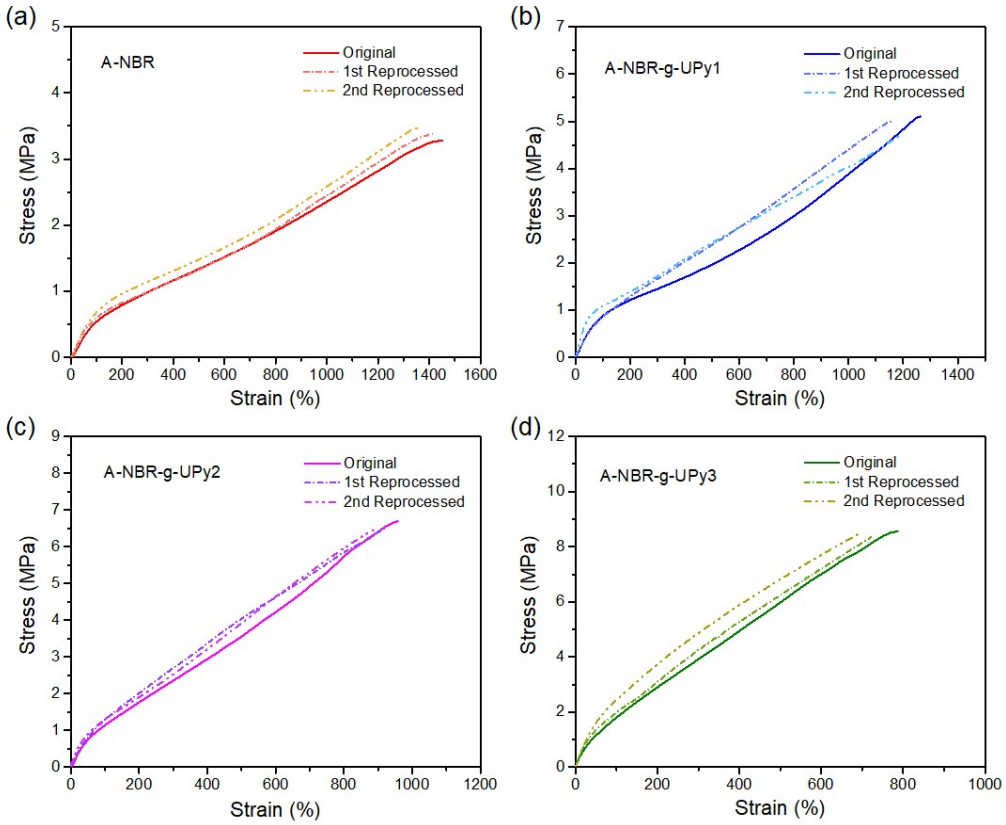

Fig. S4. Typical stress–strain curves of the amidoximated NBR and the UPy grafted NBR samples after multiple cycles of reprocessing.

Table S1. Thermal performance indexes and damping values of the amidoximated NBR and the UPy grafted amidoximated NBR samples.

Sample	T_{5d} (°C)	T_g by DSC (°C)	T_g by DMA (°C)
A-NBR	341	-16.5	-6.95
A-NBR-g-UPy1	327	-13.2	-5.79
A-NBR-g-UPy2	261	-12.0	-4.02
A-NBR-g-UPy3	249	-10.9	-3.09