Supporting Information

In-situ exfoliation of graphite into graphene nanosheets in elastomer composites based on Diels-Alder reaction during melt blending

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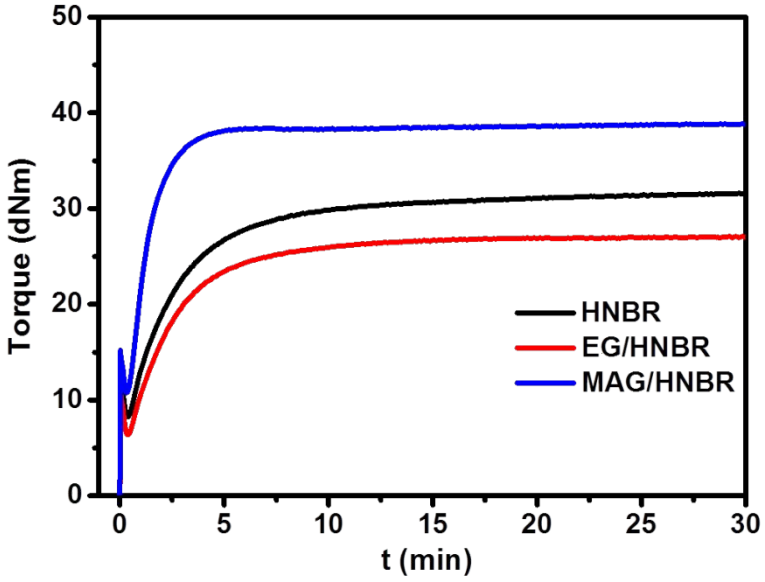

Figure S1. Cross-linking kinetics of HNBR, EG/HNBR and MAG/HNBR.

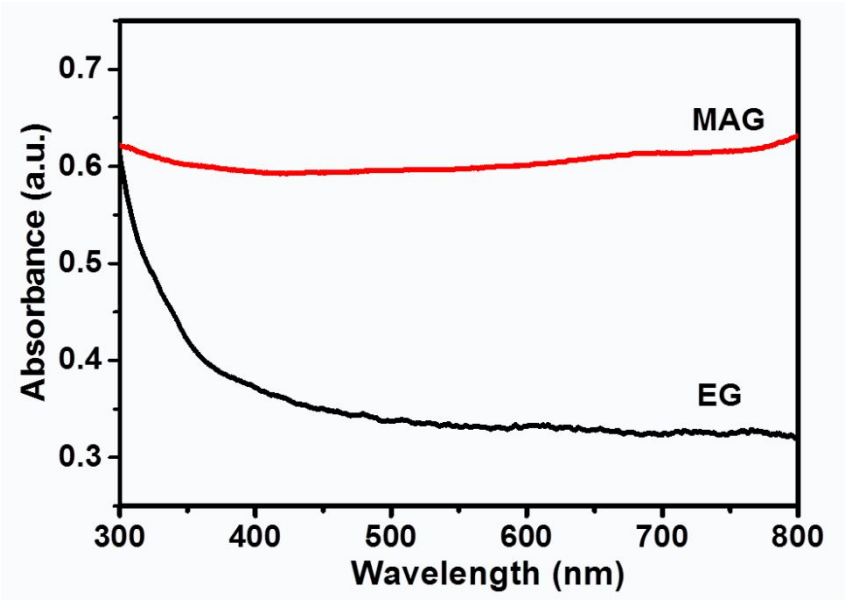

Figure S2. UV-vis absorbance spectra of MAG and EG, the concentration of MAG that was used for the UV test was about 0.068 mg/ml.

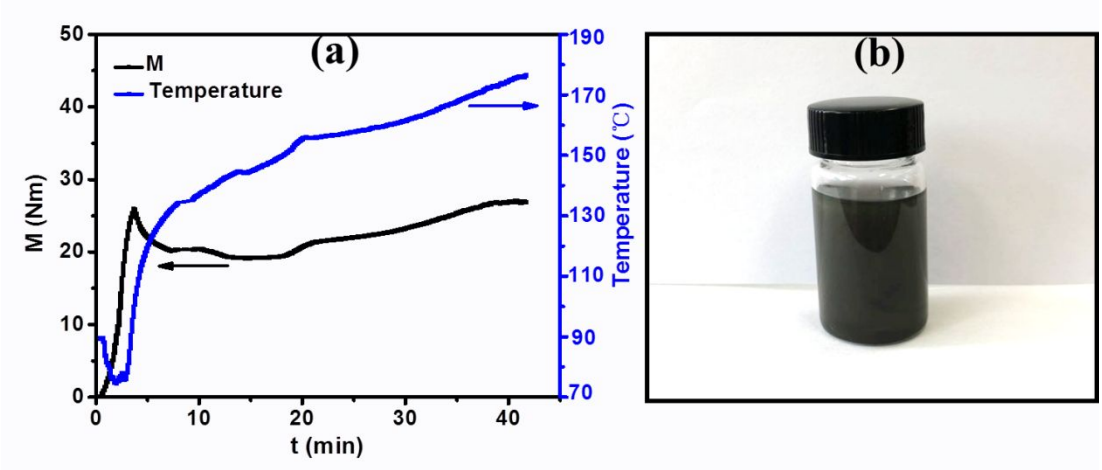

Figure S3. (a) Torque and temperature versus time curve for the MAG/HNBR mixture, (b) photograph of the dissolution of the mixture in THF.

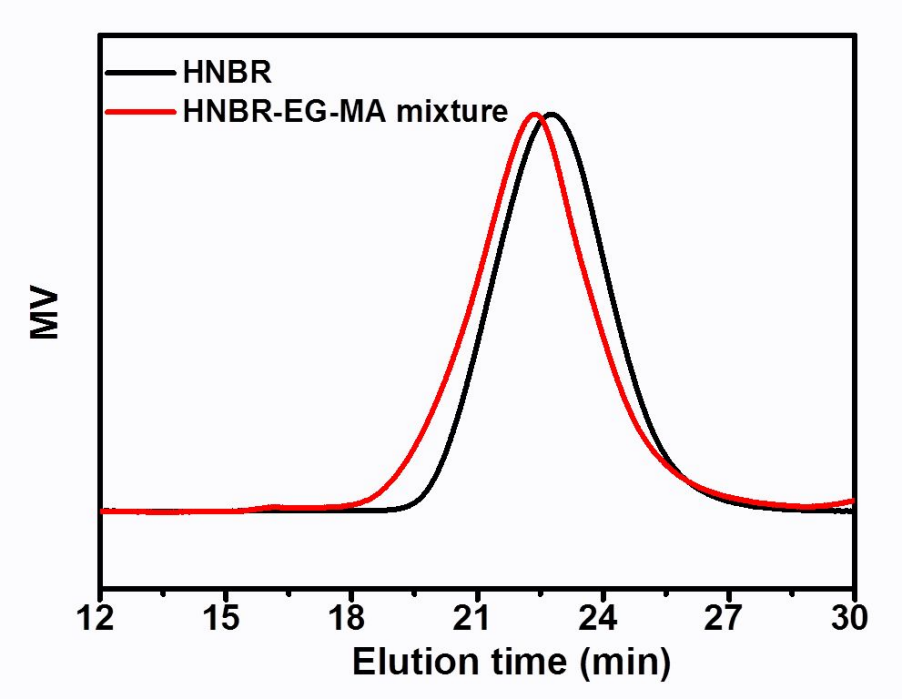

Figure S4. GPC curves for the neat HNBR and HNBR-EG-MA mixture after melt blending in the Haake rheomixer for about 40 min.