

Synergistic effect of CB and GO/CNT hybrid fillers on mechanical properties and fatigue behavior of NR composites

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Supporting information

To study the influence of different GO/CNT loadings on NR composites, we replaced CB with GO/CNT hybrid fillers (1phr GO/CNT hybrid fillers replace 3phr CB), and the filled loadings of hybrid fillers are 1phr, 3phr, 5phr, 7phr, 10phr. The tensile test results are shown in Fig S1. The modulus of NR composites filled with GO/CNT hybrid fillers is higher than CB/NR composites, while the elongation of NR composites filled with hybrid fillers is relatively low. When the filled loading of hybrid filler increased, the mechanical of NR composites firstly increases and then decreases. We can infer that when the filled loading of hybrid fillers is more than 5phr, the dispersion of GO/CNT hybrid fillers decrease.

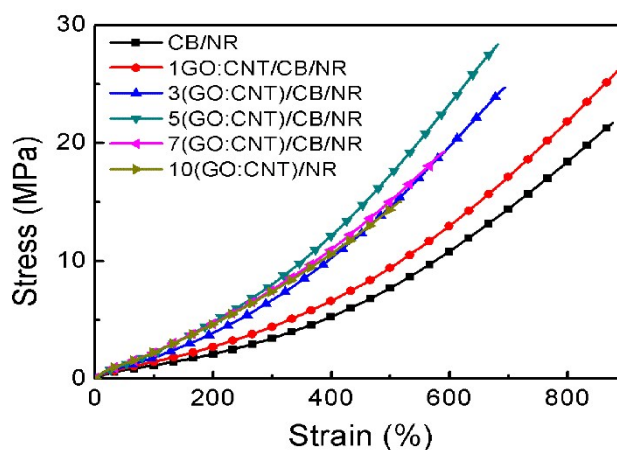


Fig S1. Typical stress-strain curves of NR composites with different filler loadings of GO/CNT (1:1)