New Approach of Fabricating Graphene Nanoplates@Natural Rubber Latex Composite and Its Characteristics and Mechanical Properties

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This provides further information about the XRD pattern, Raman and TGA spectra of GNPS and the SEM images, DSC spectrum and DMA study of obtaining graphene nanoplates/natural rubber latex composite. This material is available free of charge via the internet.
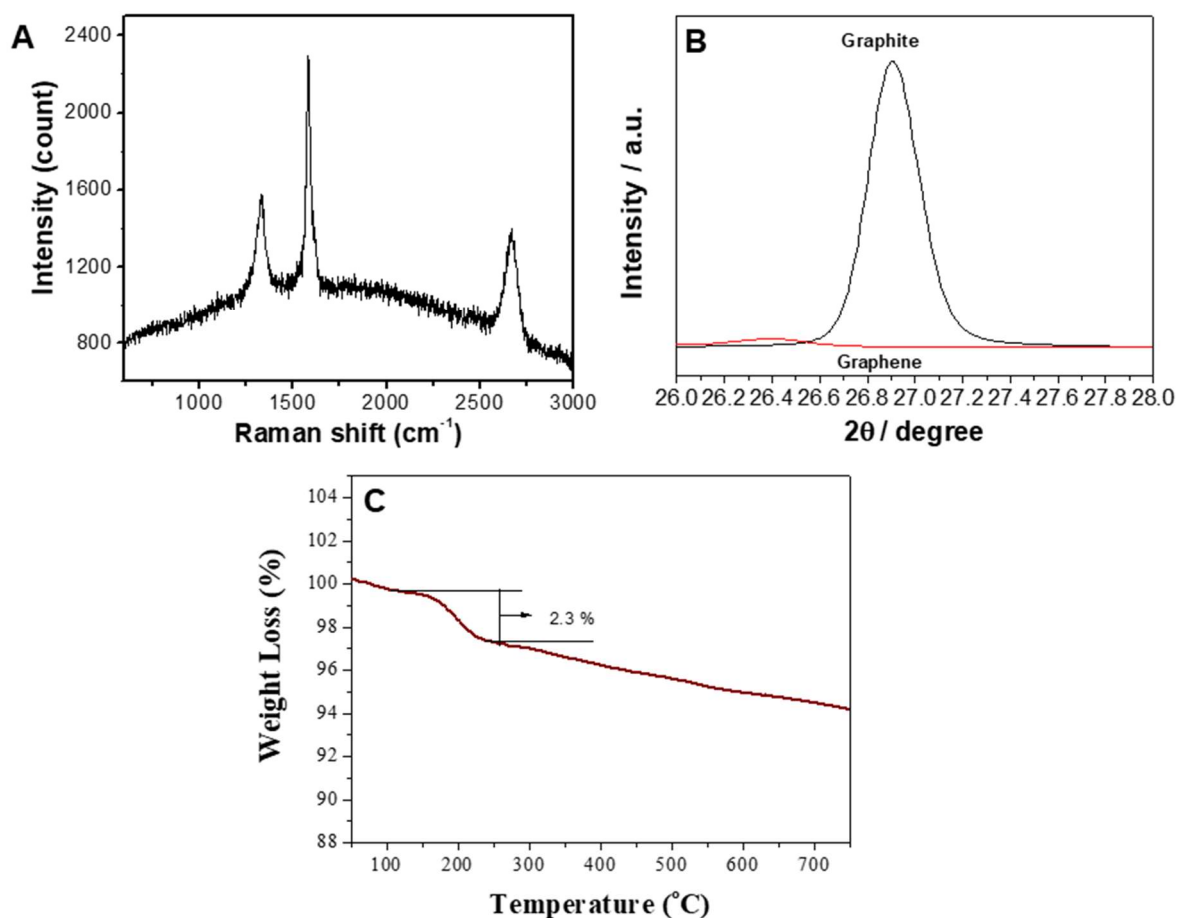

Figure S1. (**A**) Raman spectrum; (**B**) X-ray diffraction (XRD) pattern and (**C**) Thermogravimetric analysis (TGA) spectrum of graphene nanoplatelets.
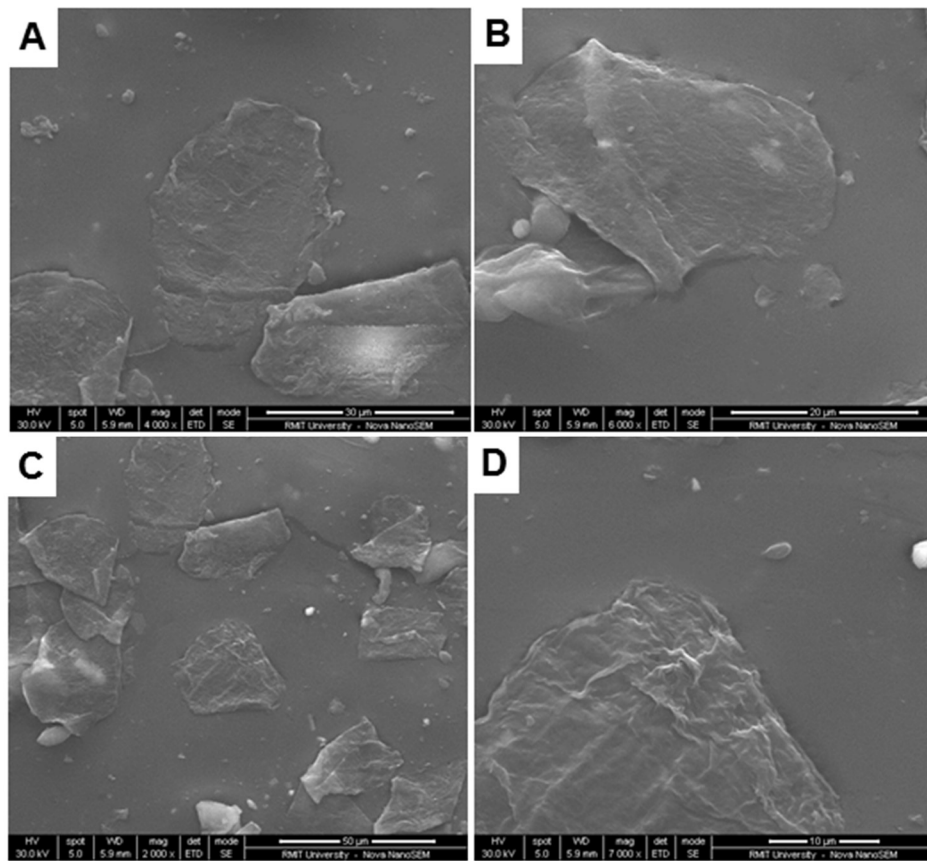
Figure S2. SEM images of the graphene nanoplates@natural rubber latex composite.
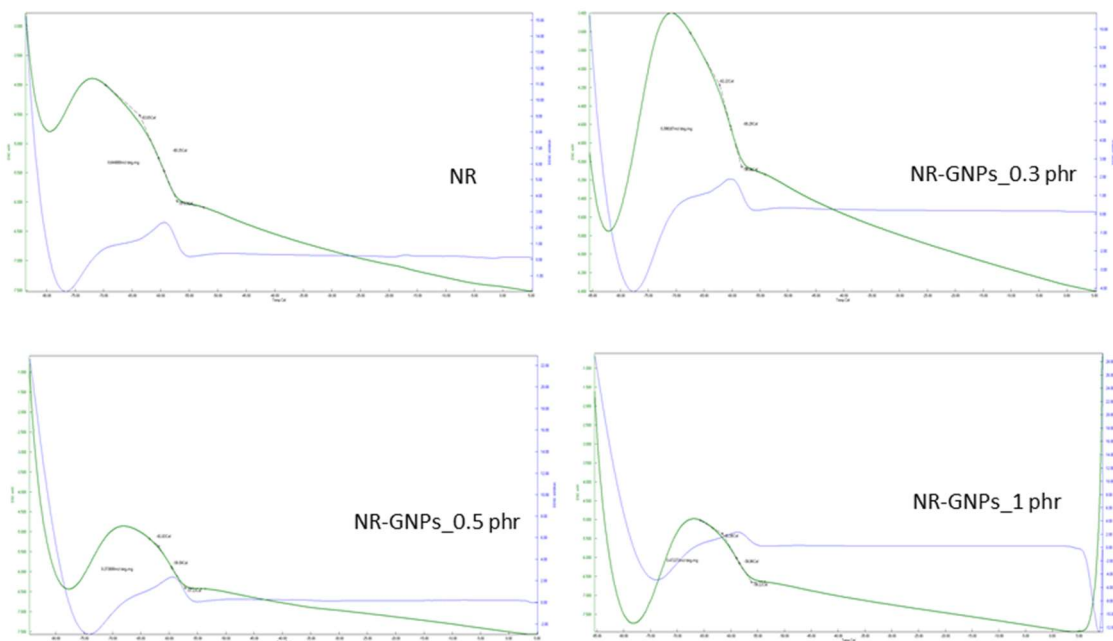

Figure S3. Differential scanning calorimetry (DSC) spectrum of the natural rubber and graphene nanoplatelets (GNPs)/rubber composite. Differential scanning calorimetry (purple line) and scanning calorimetry (blue line).
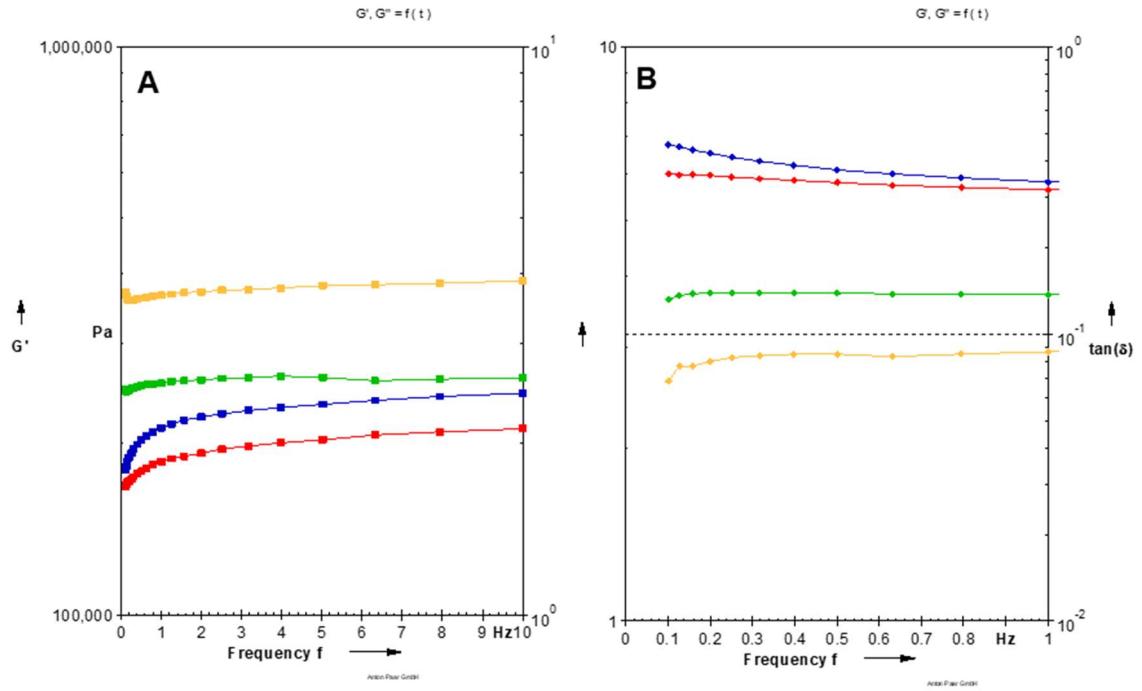
Figure S4. Dynamic mechanical analysis (DMA) spectra: (**A**) storage module and (**B**) tan (δ) of GNPs/rubber composites with various GNPs contents. 0.3 phr (blue line), 0.5 phr (pink line), 0.7 phr (green line), 1 phr (orange line).