

Supporting Information for

Polymer reinforcement using liquid-exfoliated BN nanosheets

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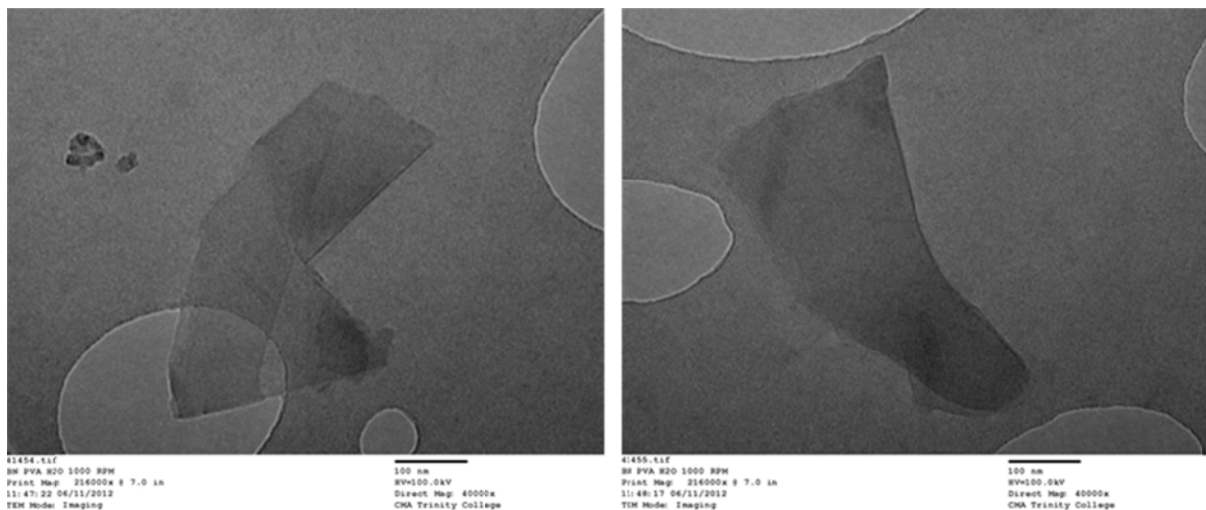


Figure S1: Sample images for un-size selected flakes (control sample produced by centrifugation at 1000 RPM for 45 minutes, see experimental procedure). The scale bars are 100 nm.

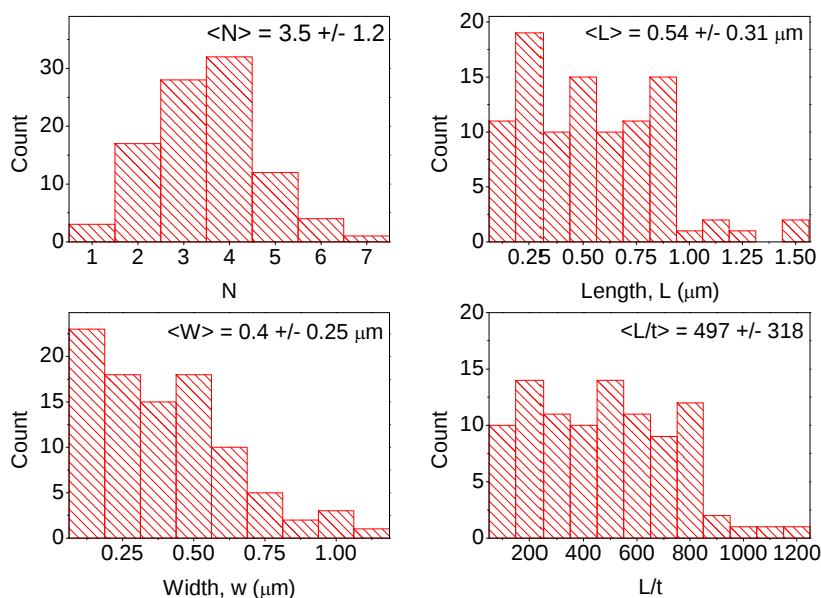


Figure S2: Statistical size data for un-size selected flakes (control sample produced by centrifugation at 1000 RPM for 45 minutes, see experimental procedure).

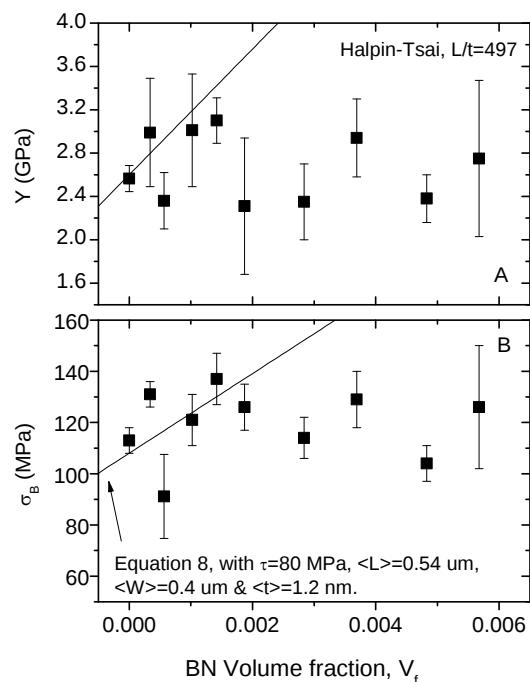


Figure S3: Mechanical properties of composites prepared with un-size selected BN. Superimposed are theoretical models describing the mechanical properties. The line in A is a plot of the Halpin –Tsai equations (4 & 5) using $Y_p=2.6$ GPa, $Y_F=750$ GPa and $\langle L/t \rangle=497$. The line in B is a plot of equation 8 with $\tau_B=80$ MPa, $\langle L \rangle=0.54$ μm , $\langle w \rangle=0.4$ μm & $\langle t \rangle=1.2$ nm. All size data are taken from fig S2.

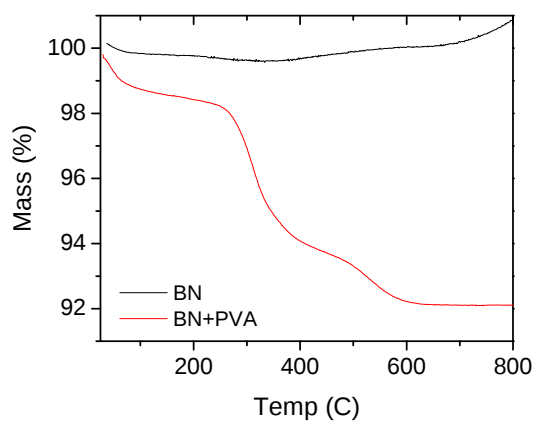


Figure S4: Thermogravimetric analysis of PVA-BN powder used for composite production.