

High Concentration Few-layer Graphene Sheets Obtained by Liquid Phase Exfoliation of Graphite in Ionic Liquid

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Tyndall effect

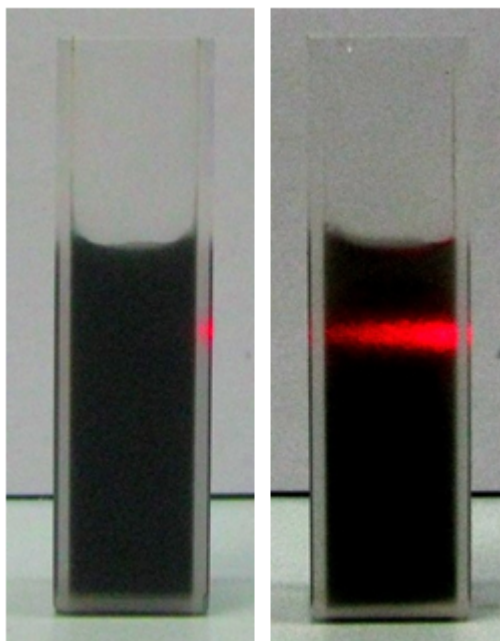


Figure S1. Tyndall effect exhibited by a graphene dispersion in HMIH (right picture): when the red laser light passes through the dispersion, it is scattered and becomes visible. For comparison, an analogous experiment on a graphite dispersion is also shown (left picture).

FE-SEM images

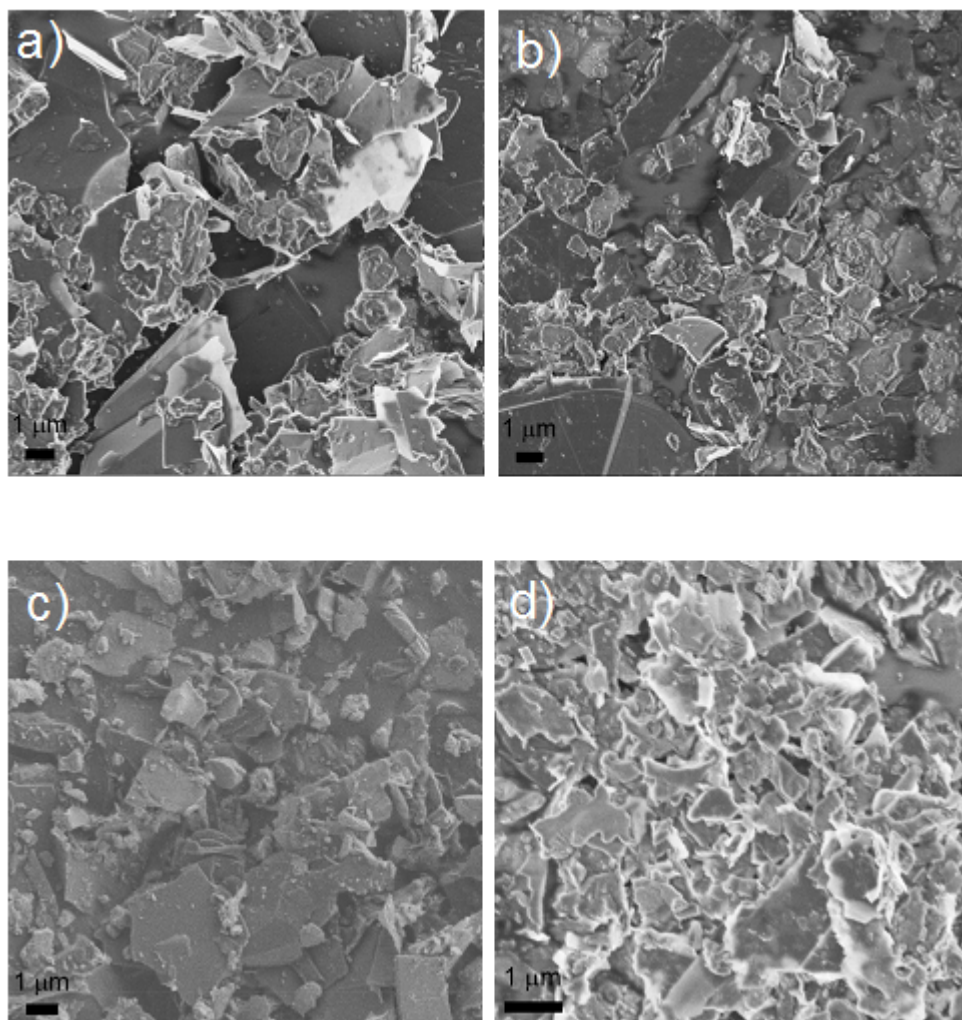


Figure S2. FE-SEM images of the graphene flakes obtained from (a) 0.1 wt.%, (b) 0.5 wt.%, (c) 1 wt.% and (d) 2 wt.% dispersion of graphite in ionic liquid.

UV analysis

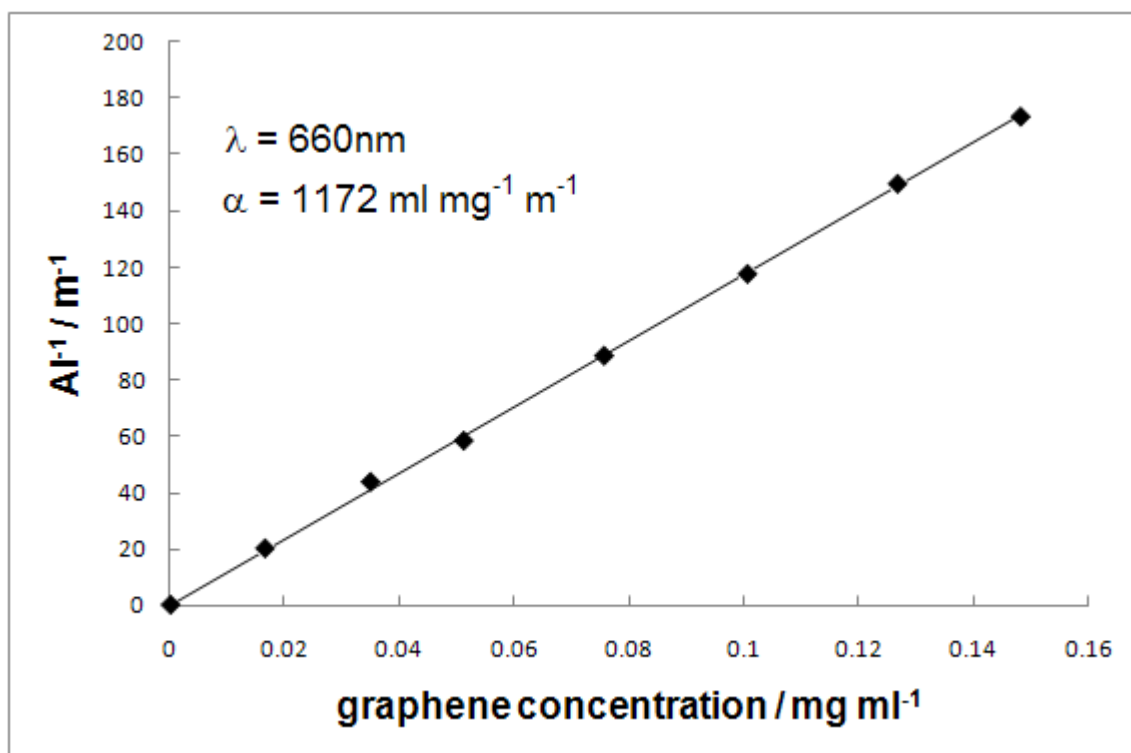


Figure S3. Optical absorbance (660 nm) divided by cell length as a function of concentration for graphene in HMIH. A Lambert-Beer behaviour is shown, with an absorption coefficient $\alpha = 1172\text{ ml mg}^{-1}\text{ m}^{-1}$.

For each dispersion, ten measurements were carried out. In the above plot, the average value is displayed (reproducibility was always within 5%).