Supplementary information

Figure SI 1. Solidified graphene mixture with NMMO$_m$ at room temperature after one month later.

Figure SI 2. Photographs of the GPN dispersion in water at $C_{\text{GPN}} = 1$ mg/mL: (a) immediately and (b) 3 months after sonication for 2 h; the laser beams in the vials are to used to observe the Tyndall effect.
Figure SI 3. UV-Vis spectra with different $C_{\text{GPNS}}$ in the range of 0.005 to 0.03 mg/mL.

Figure SI 4. UV-Vis spectra after centrifugation of the 5 mg/mL GPN solution at 1,500, 3,000, 5,000, and 9,000 rpm; the absorbance at 1,500 and 3,000 rpm were obtained from $\times 10$ dilution with water after centrifugation.
Figure SI 5. (a) STEM image and (b) SAED pattern of the multi-layered graphene in the circled area in (a).