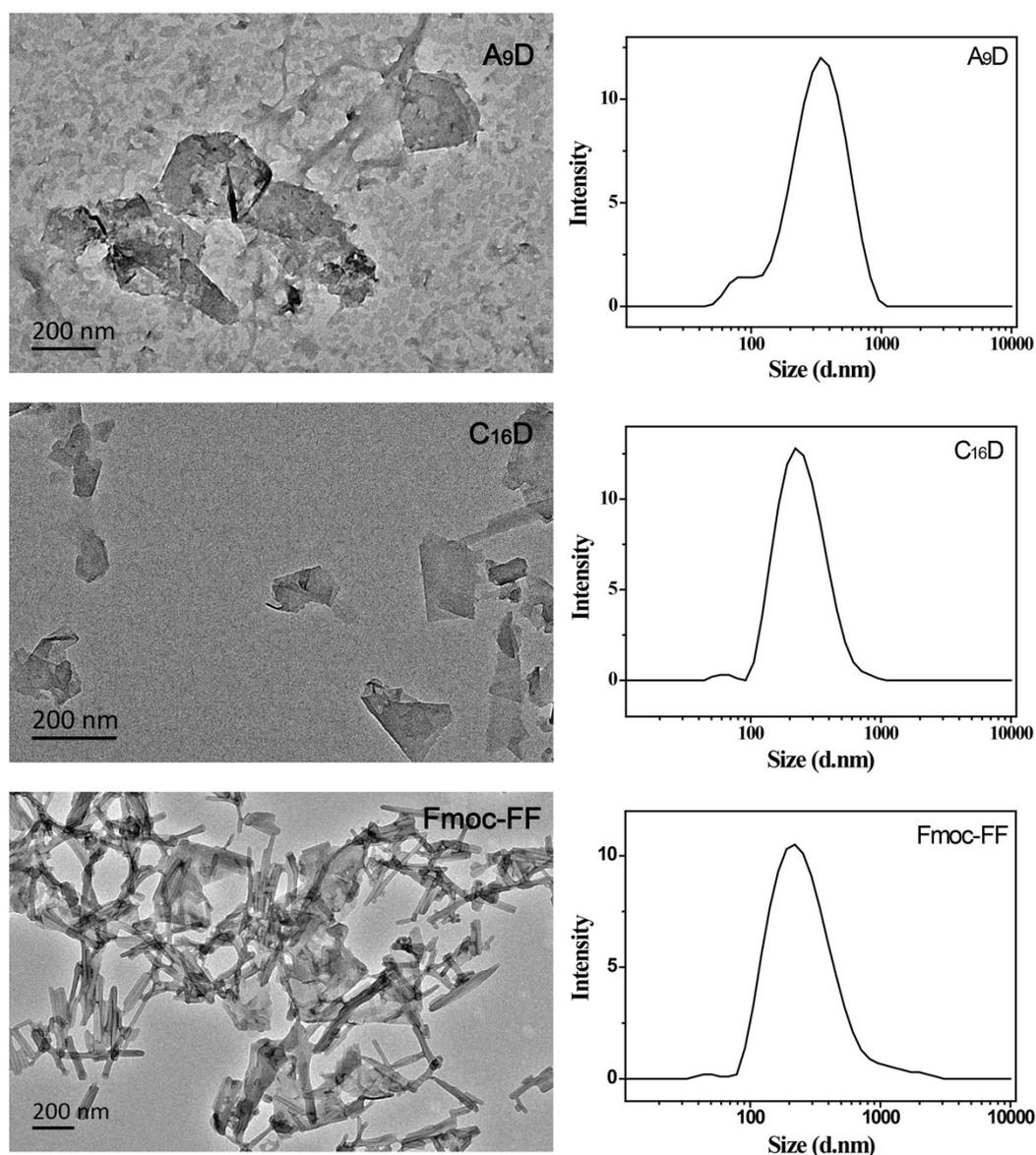
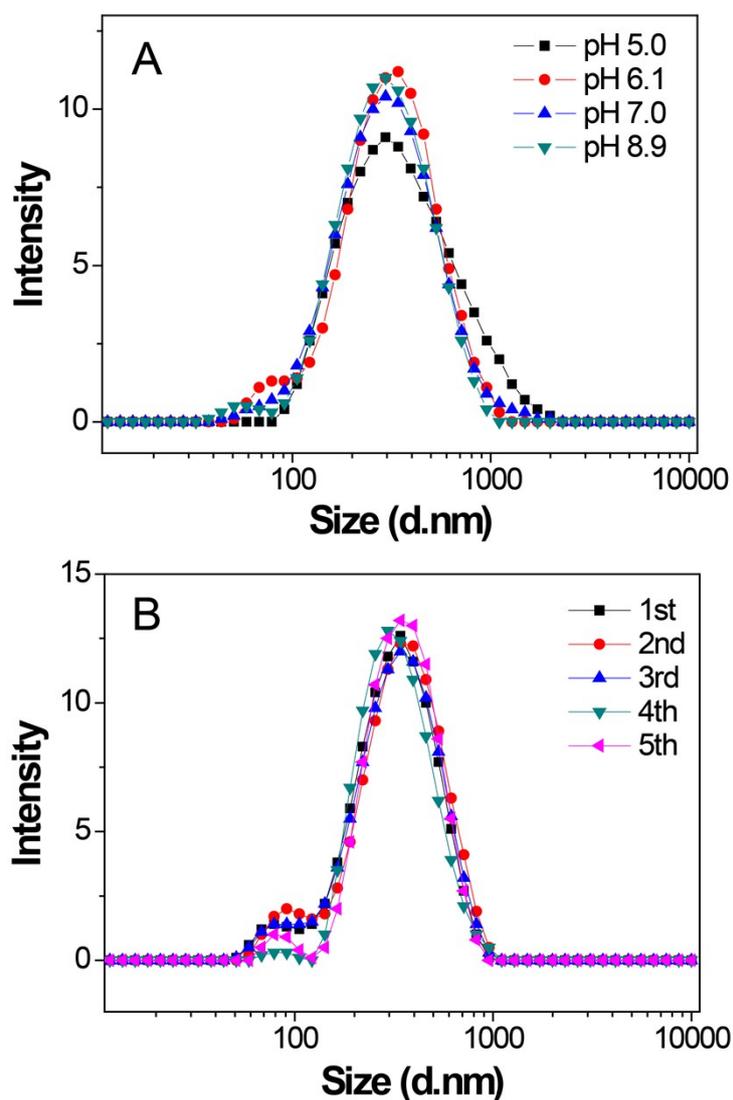


Supporting Information for  
**Direct Exfoliation of Graphite into Graphene in Aqueous Solutions of  
Amphiphilic Peptides**

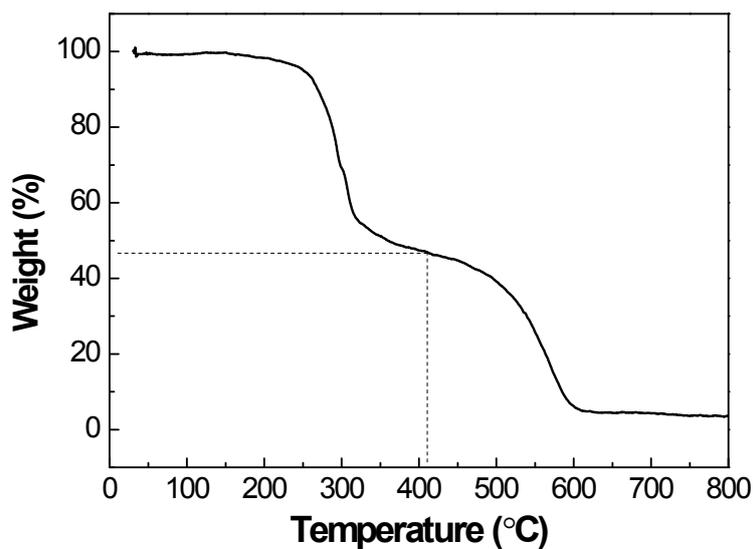
Meiwen Cao, Ningning Wang, Lei Wang, Yu Zhang, Yucan Chen, Zilong Xie,  
Zongyi Li, Elias Pambou, Ruiheng Li, Cuixia Chen, Fang Pan, Hai Xu, Jeffery Penny,  
John R. P. Webster, Jian R. Lu



**Fig. S1.** Negatively stained TEM images (left panel) and DLS (right panel) results for the graphene dispersion after treatment with A<sub>9</sub>D, C<sub>16</sub>D, and Fmoc-FF and centrifugation at 5000 rpm for 10 min.



**Fig. S2.** DLS results of the I<sub>3</sub>C-Cl<sub>3</sub>-treated graphene dispersion: (A) size distribution of the dispersion at different pH values and (B) size distribution of the dispersion at pH 10 after different cycles of pH adjustment (pH of 10→3→10). Note that the dispersion was firstly obtained after centrifugation at 5000 rpm for 10 min and then subjected to pH adjustment.



**Fig. S3.** Thermograph of the graphene/I<sub>3</sub>C-Cl<sub>3</sub> composite film prepared by simple filtration of a dispersion (after centrifugation at 5000 rpm for 10 min) through a nylon filter membrane of 0.22 μm pore size. Thermogravimetric analysis (TGA) was carried out on a STA PT1600 TG apparatus (Linseis, Germany) under an air atmosphere from room temperature to 800 °C at a heating rate of 10 °C min<sup>-1</sup>. The thermograph showed a two-step weight loss and the first one (from room temperature to 410 °C) was ascribed to I<sub>3</sub>C-Cl<sub>3</sub> contribution.