

Supplementary Information

Factors that Affect Pickering Emulsions stabilized by Graphene Oxide

Yongqiang He^{1,2} Fei Wu^{2} Xiyang Sun² Ruqiang Li² Yongqin Guo²*

Chuanbao Li² Lu Zhang² Fubao Xing² Wei Wang³ Jianping Gao^{2}*

(¹ Department of Applied Chemistry, Yuncheng University, Yuncheng 044000,
² School of Science, ³ School of Chemical Engineering, Tianjin University, Tianjin
300072, P R China)

Fax: +86 22 274 034 75; Tel: 022-27403475; E-mail: Wufei0125@yahoo.cn, jianpingg@eyou.com

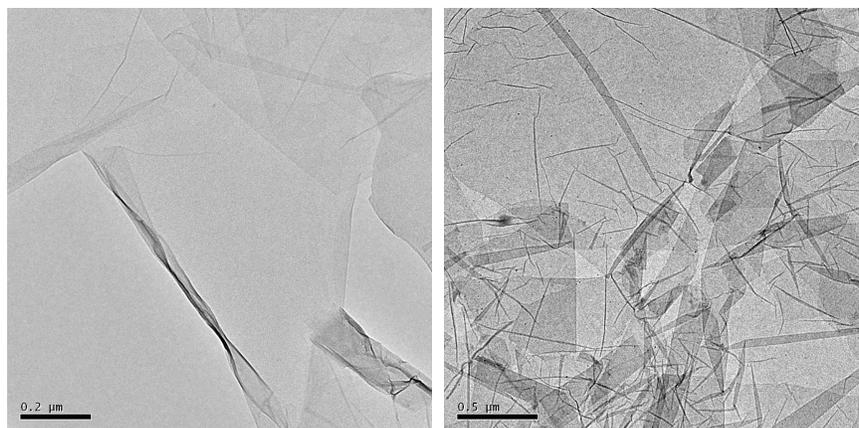


Figure S1. The TEM images of GO sheets.

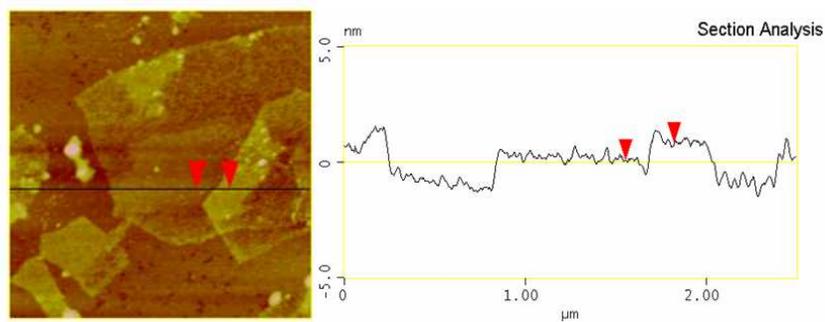


Figure S2. AFM tap-mode image and height profile of GO.

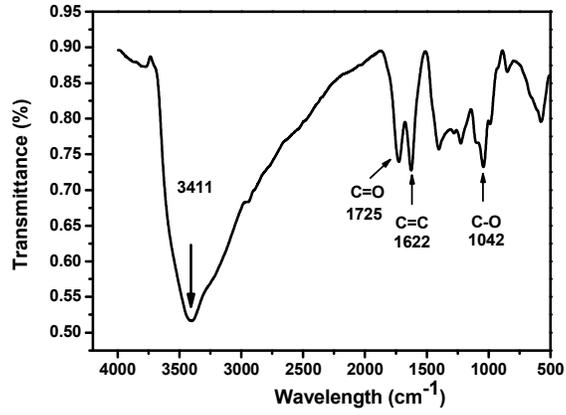


Figure S3. FT-IR spectrum of GO.

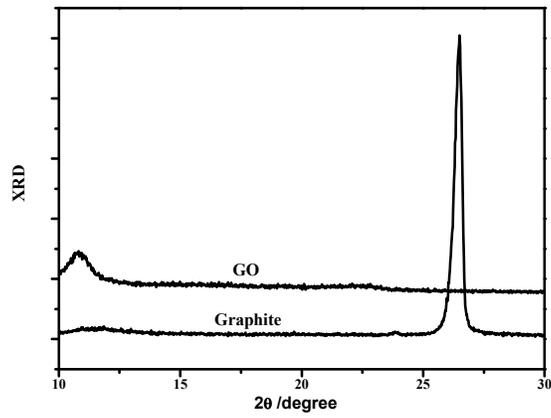
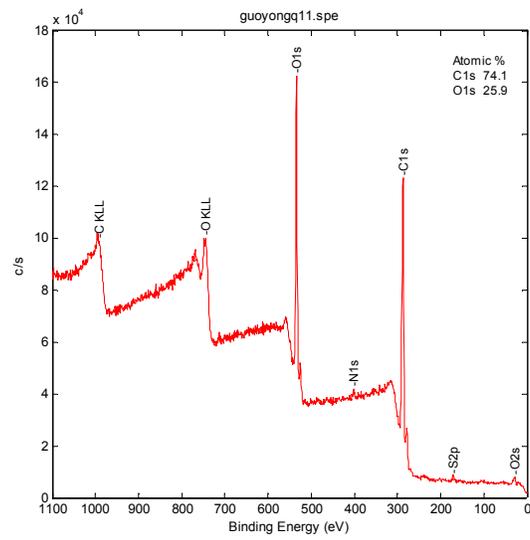
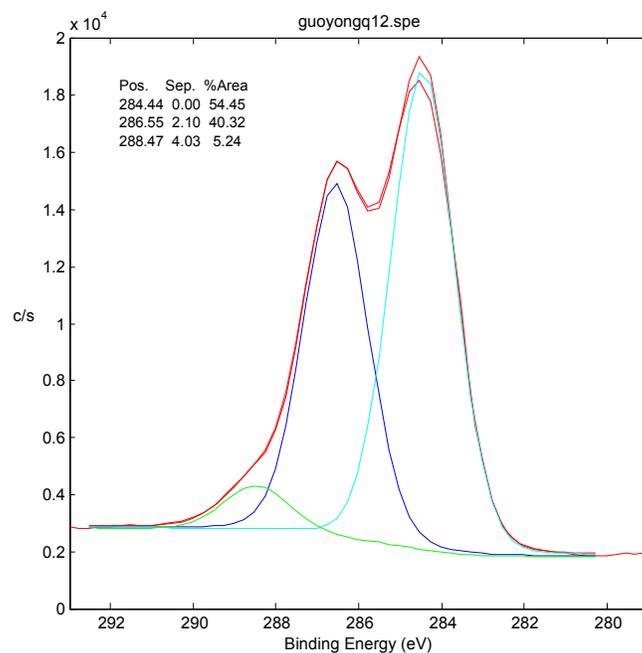


Figure S4. XRD patterns of graphite and GO.



(A)



(B)

Figure S5. (A) The XPS spectra for GO. (B) The C1s XPS spectra for GO.

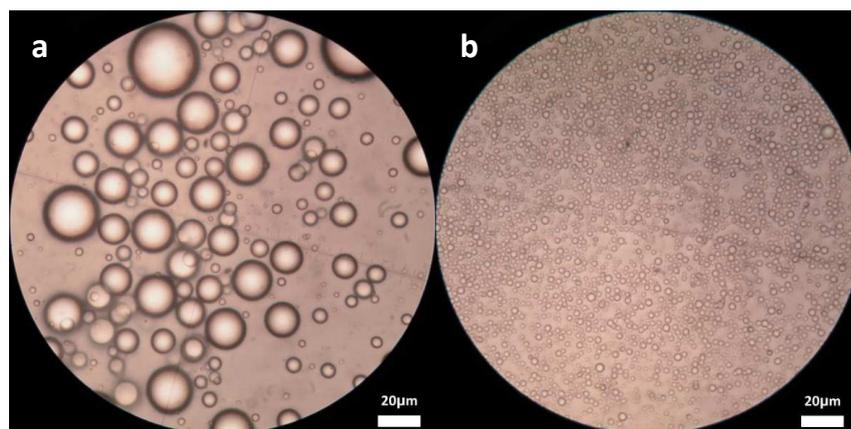


Figure S6. Optical micrographs 72 h after preparation of Pickering emulsions stabilized by GO using (a) benzene and (b) benzene with dissolved naphthalene as solvents.

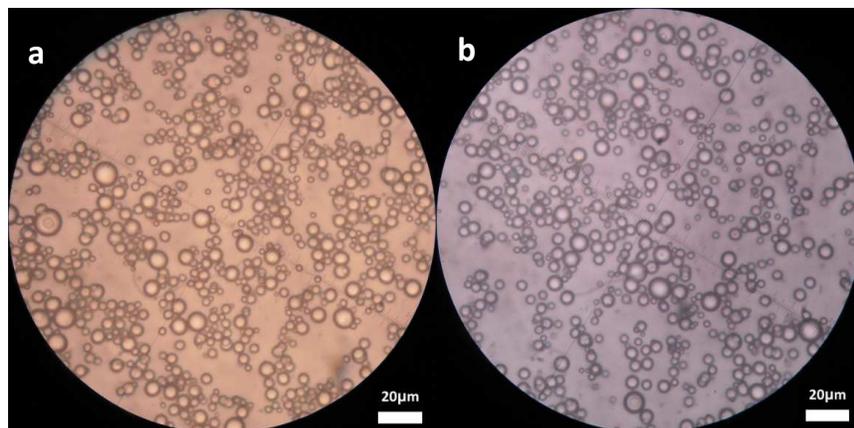


Figure S7. Optical micrographs and photographs 72 h after preparation of benzyl chloride-in-water Pickering emulsions stabilized by GO with (a) 7 min and (b) 10 min of sonication.

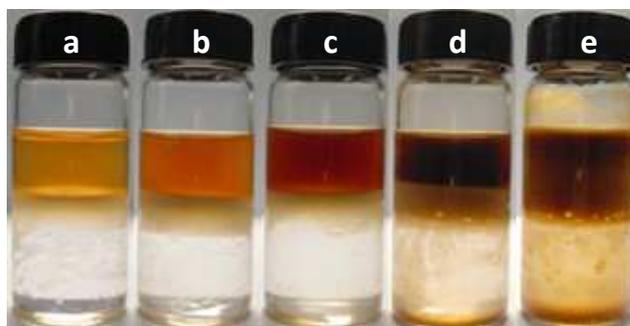


Figure S8. Photographs of Pickering O/W emulsions stabilized by GO at different concentrations: (a) 0.25 mg/mL, (b) 0.5 mg/mL, (c) 1 mg/mL, (d) 3 mg/mL, (e) 6 mg/mL. The oil/ water ratio is 2:1.

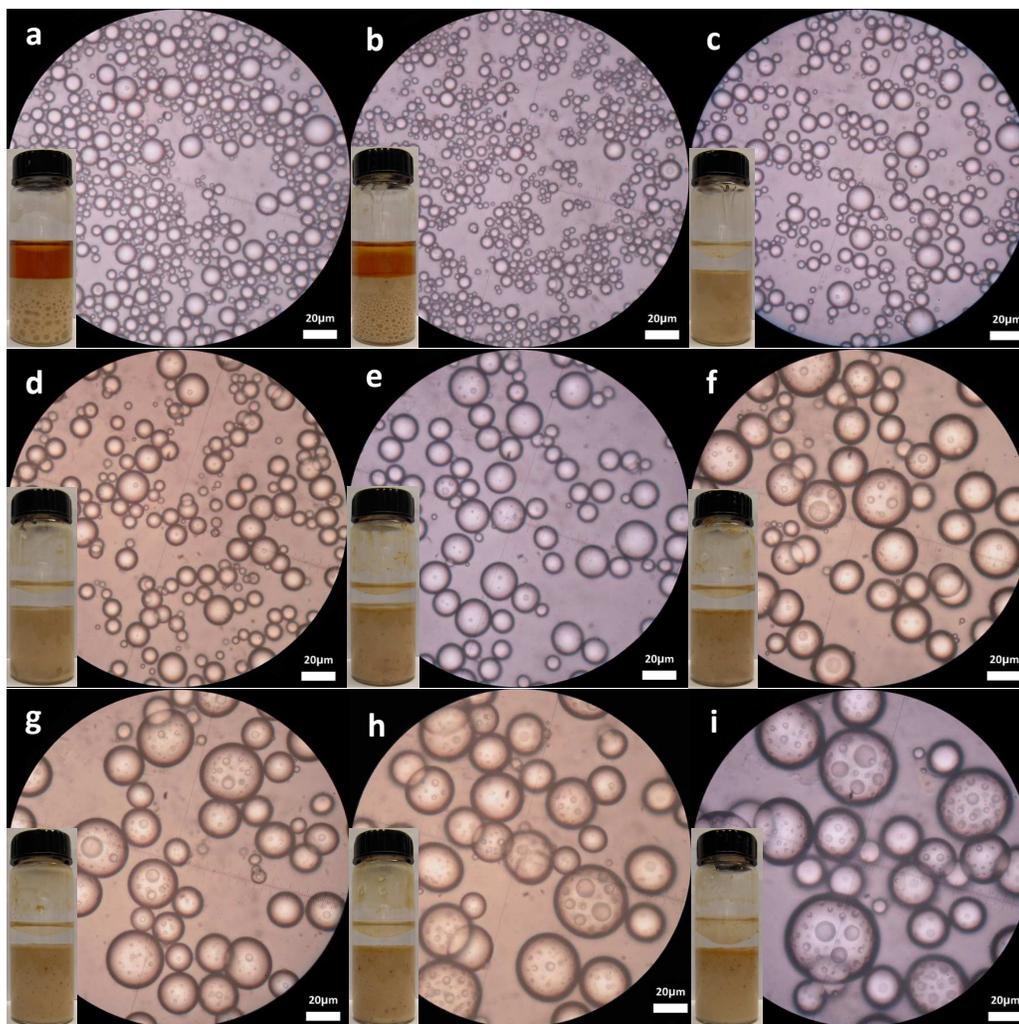


Figure S9. Optical micrographs and photographs 72 h after preparation of Pickering emulsions stabilized by GO with different MgCl_2 concentrations. The concentrations of MgCl_2 (mM) are (a) 0.1, (b) 1, (c) 10, (d) 20, (e) 50, (f) 100, (g) 300, (h) 500, and (i) 1000. GO concentration: 1 mg mL^{-1} , oil/water ratio: 1:1.