

Supporting Information

Preparation of Hydrophobic Octadecylphosphonic Acid-Coated Magnetite Nanoparticles for the Demulsification of n-Hexane-in-Water Nanoemulsions

Jiling Liang, Tingting Han, Wenwu Wang, Lunqiu Zhang *, Yan Zhang

School of Civil Engineering, Liaoning Petrochemical University, Fushun 113001,
China; lj418@126.com (J.L.); 13478971740@163.com (T.H.);
lxhwww520@163.com (W.W.); zhangyan_286192@163.com (Y.Z.)

* To whom correspondence should be addressed

Tel.: +86 186-4011-9142

E-mail: zhangdoctor2022@126.com

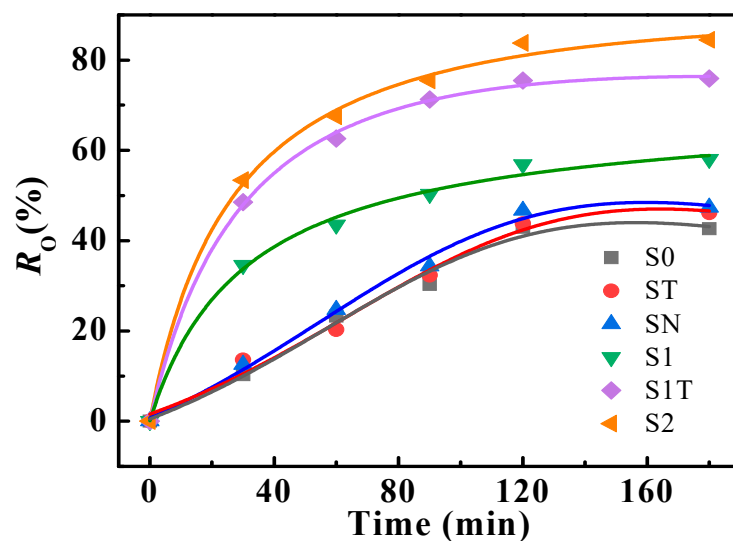


Figure S1 Plots of demulsification efficiency (R_o) vs. time at $C_s = 40.0 \text{ g} \cdot \text{L}^{-1}$.

† The effect of time on demulsification efficiency (R_o) for magnetic nanoparticles was determined by shaking 0-180 min at $C_s=40.0 \text{ g L}^{-1}$. The results show that the R_o tended to reach an equilibrium value after demulsifying for 120 min. It is indicated that shaking 3 h is sufficient to reach demulsification equilibrium.

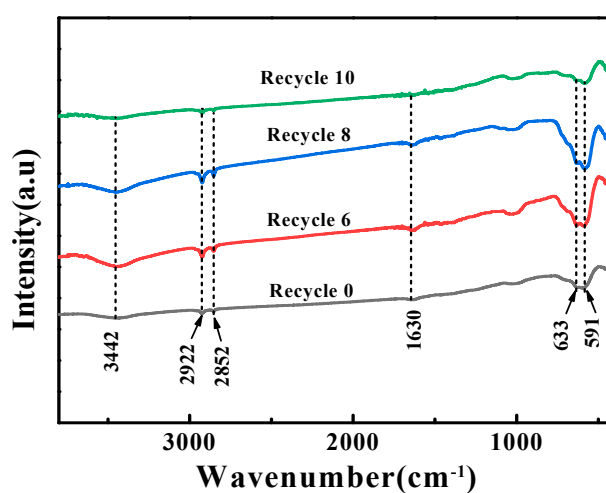


Figure S2 FT-IR spectra of S2 sample recovered in Recycling tests

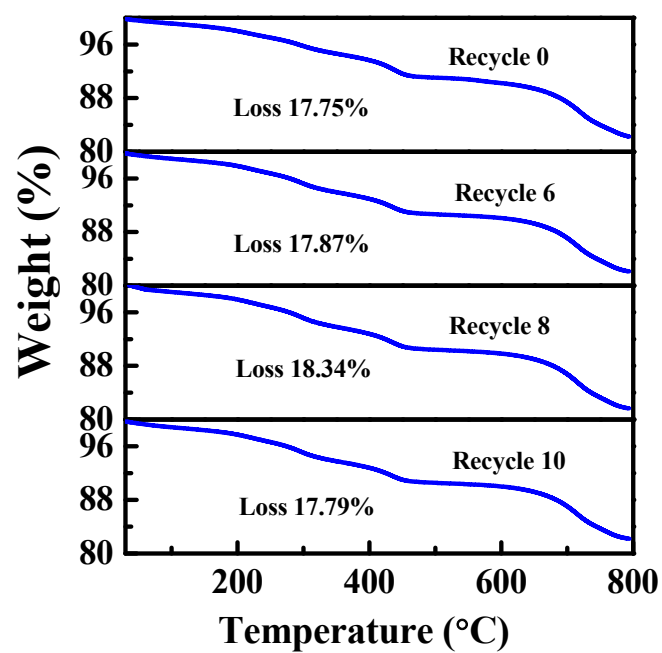


Figure S3 TG curves of S2 sample recovered in Recycling tests