

Magnetic-responsible Pickering emulsion and its catalytic application at water–oil interface

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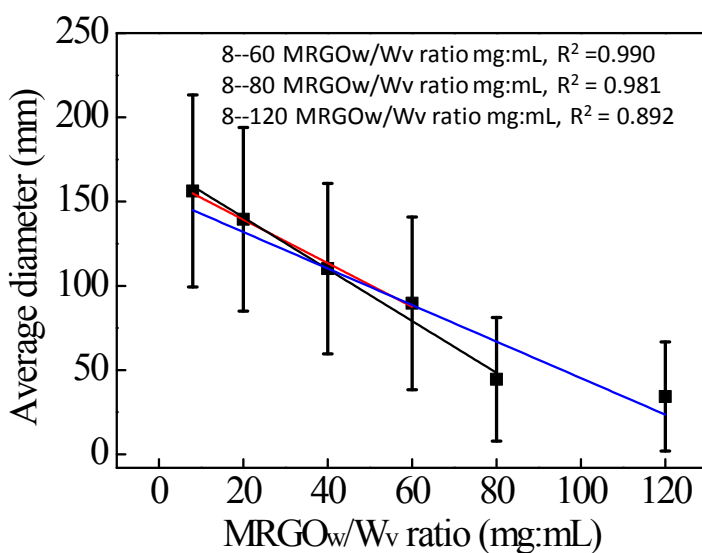


Fig.S1 The size of PE as a function of MRGO_w/W_v ratio

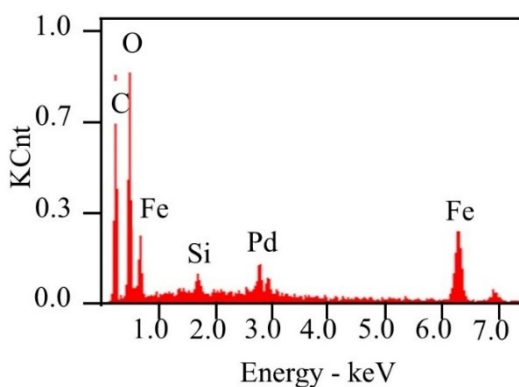


Fig.S2 The EDS spectroscopy spectrum of MRGO-Pd

Table S1 the reaction rate constant at various catalyst dosage

Catalyst dosage (g/L)	k (min ⁻¹)	R^2
0.16	0.0057	0.9830
0.4	0.0113	0.9986
0.8	0.0165	0.9755
1.2	0.0542	0.9971
1.6	0.0909	0.9944

Table S2 the reaction rate constant at various H₂O₂ concentration

H ₂ O ₂ concentration (g/L)	k (min ⁻¹)	R^2
0.5	0.0052	0.9722
0.9	0.0142	0.9882
1.3	0.0238	0.9895
1.9	0.0542	0.9971
2.4	0.0180	0.9961

Table S3 the reaction rate constant at various sudan-4 concentration

Sudan-4 concentration (mM)	k (min ⁻¹)	R^2
0.25	0.0702	0.9955
0.54	0.0542	0.9971
0.79	0.022	0.9839
1.63	0.0115	0.9780

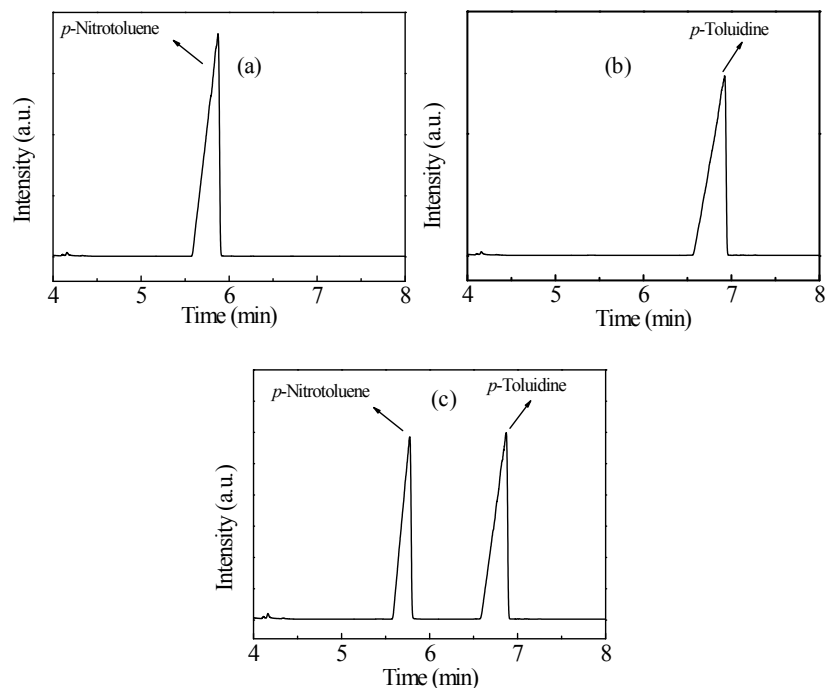


Fig.S3 Representative chromatograms of hydrogenation of *p*-nitrotoluene
 (a) *p*-nitrotoluene; (b) *p*-toluidine; (c) Products during the hydrogenation of *p*-nitrotoluene
 catalyzed by MRGO-Pd stabilized Pickering emulsions

Table S4 the reaction rate constant at various catalyst dosage

catalyst dosage (g/L)	k (min^{-1})	R^2
0.6	0.0249	0.9674
1	0.0386	0.9631
2	0.1963	0.9945
3	0.2668	0.9765

Table S5 the reaction rate constant at various NaBH_4 concentration

NaBH_4 concentration (g/L)	k (min^{-1})	R^2
5	0.0230	0.9833
10	0.0531	0.9951
20	0.1963	0.9945
40	0.2001	0.9947