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Electronic Supplementary Information

Superhydrophobic magnetic core−shell mesoporous organosilica nanoparticles with dendritic architecture for oil-water separation

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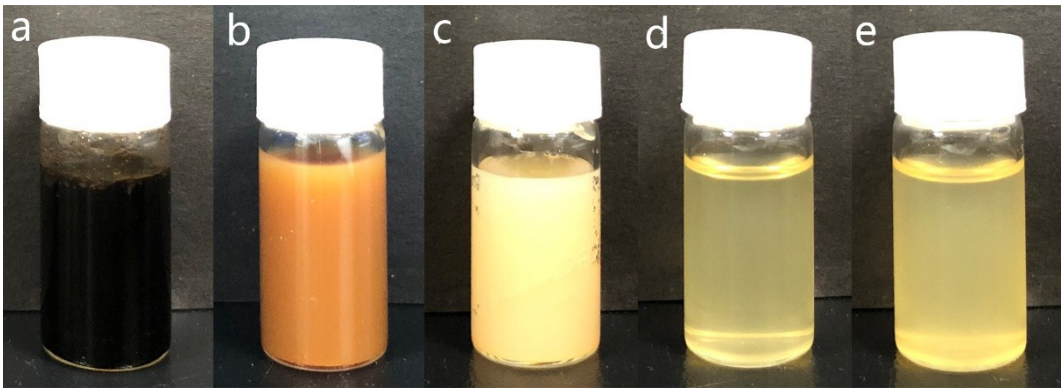

Fig. S1. Digital images of products of different reaction stages: (a) OA-Fe_3O_4 NPs in $CHCl_3$, (b) CTAB grafted Fe_3O_4 NPs in water, (c) Fe_3O_4@mSiO_2 NPs in water, (d) Fe_3O_4@MONs in cyclohexane, (e) Fe_3O_4@DMONs in cyclohexane.

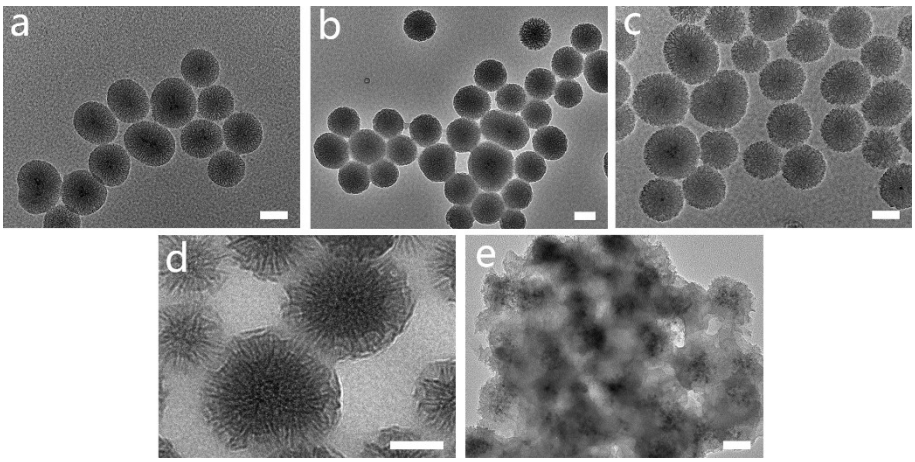

Fig. S2. The influence of different silica source dosages on the morphology of Fe_3O_4@DMONs. (a) 1.0 mL of TEOS and 0.24 mL of ODMS, (b) 1.5 mL of TEOS and 0.36 mL of ODMS, (c) 2.0 mL of TEOS and 0.48 mL of ODMS, (d) 3.0 mL of TEOS and 0.72 mL of ODMS, (e) 3.5 mL of TEOS and 0.84 mL of ODMS. *Scar bar*: 100 nm.

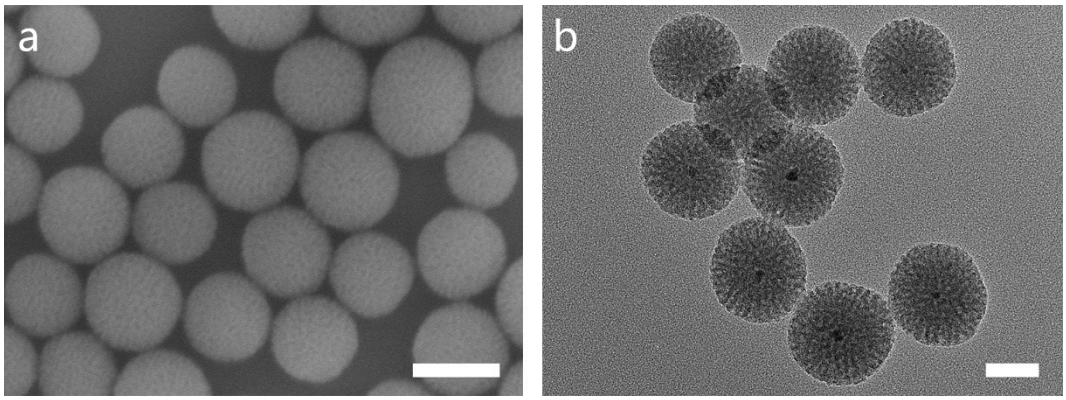

Fig. S3. (a) SEM image of the Fe_3O_4@MONs. (b) TEM image of the Fe_3O_4@MONs. *Scale bar*: (a) 100 nm; (b) 50 nm.

Table S1. Texture properties of the Fe_3O_4@DMONs and Fe_3O_4@MONs.

Samples	S_{BET}[a] (m^2 g^{-1})	V_p[b] (cm^3 g^{-1})	Fe[c] (%)
Fe_3O_4@DMONs	203	0.910	5.3
Fe_3O_4@MONs	92	0.403	3.7

[a] Specific surface area was calculated using the BET method. [b] Total pore volume at P/P_0 = 0.993. [c] Iron weight percentage estimated by XPS.

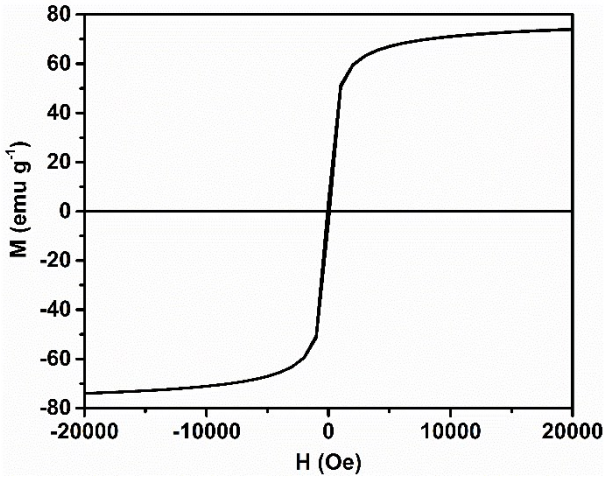

Fig. S4. The magnetic hysteresis loop of the OA-Fe_3O_4 NPs.

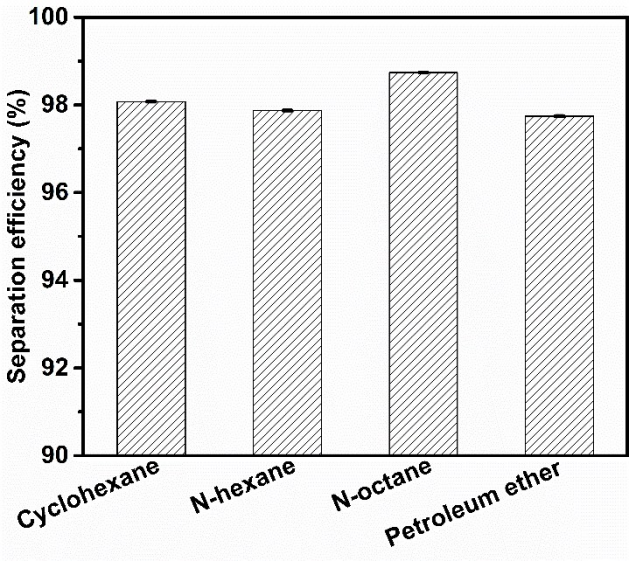

Fig. S5. Separation efficiencies of the Fe_3O_4@MONs for a selection of oils.