

## Supplementary Information

# Hierarchical Fe<sub>3</sub>O<sub>4</sub>@titanate microspheres with superior removal capability for water treatment: In-situ growth and structure tailoring via hydrothermal assisted etching

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	Mean (mV)	Area (%)	Width (mV)
<b>Zeta Potential (mV):</b> -52.0	Peak 1: -52.0	100.0	5.85
<b>Zeta Deviation (mV):</b> 5.85	Peak 2: 0.00	0.0	0.00
<b>Conductivity (mS/cm):</b> 0.00246	Peak 3: 0.00	0.0	0.00

**Result quality:** Good

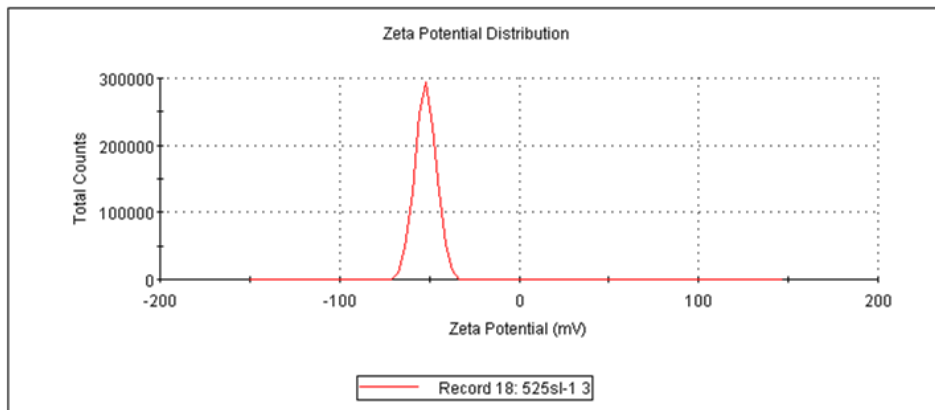


Figure S1. Zeta potential of as-prepared Fe<sub>3</sub>O<sub>4</sub> microspheres.

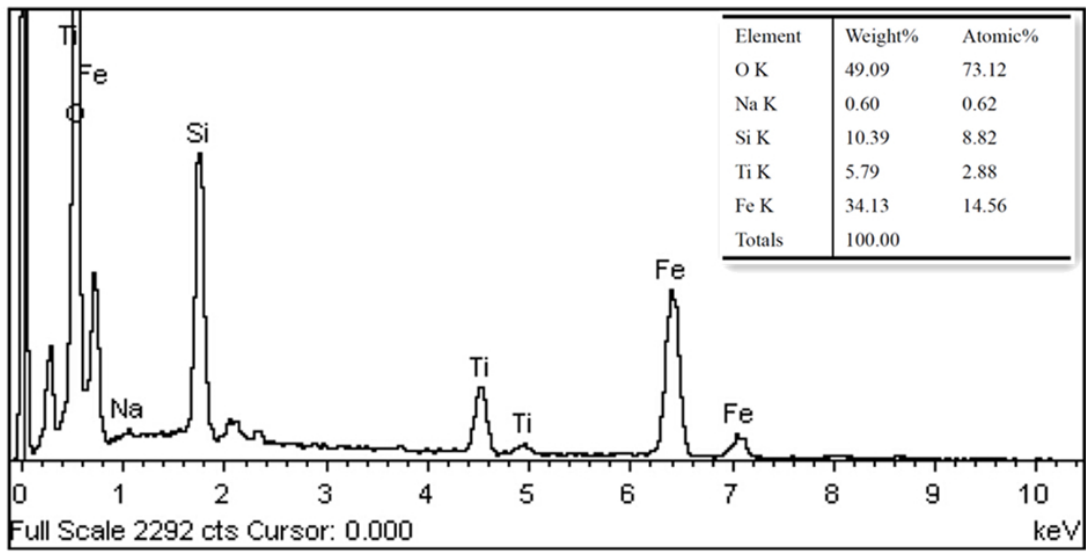


Figure S2. EDX results of  $\text{Fe}_3\text{O}_4@\text{SiO}_2@\text{AT}$  microspheres.

	Mean (mV)	Area (%)	Width (mV)
<b>Zeta Potential (mV):</b> -34.8	<b>Peak 1:</b> -34.8	100.0	4.18
<b>Zeta Deviation (mV):</b> 4.18	<b>Peak 2:</b> 0.00	0.0	0.00
<b>Conductivity (mS/cm):</b> 0.0234	<b>Peak 3:</b> 0.00	0.0	0.00

**Result quality :** Good

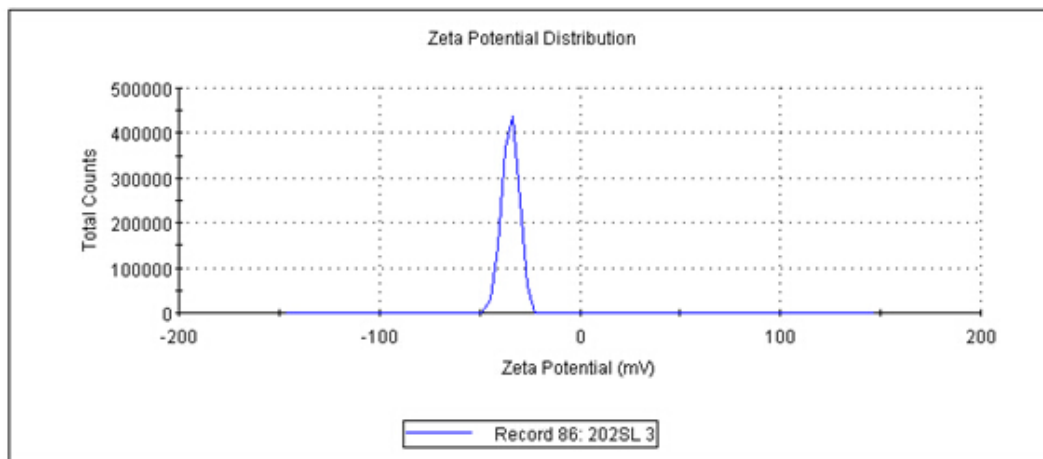


Figure S3. Zeta potential of Fe<sub>3</sub>O<sub>4</sub>@titanate microspheres.

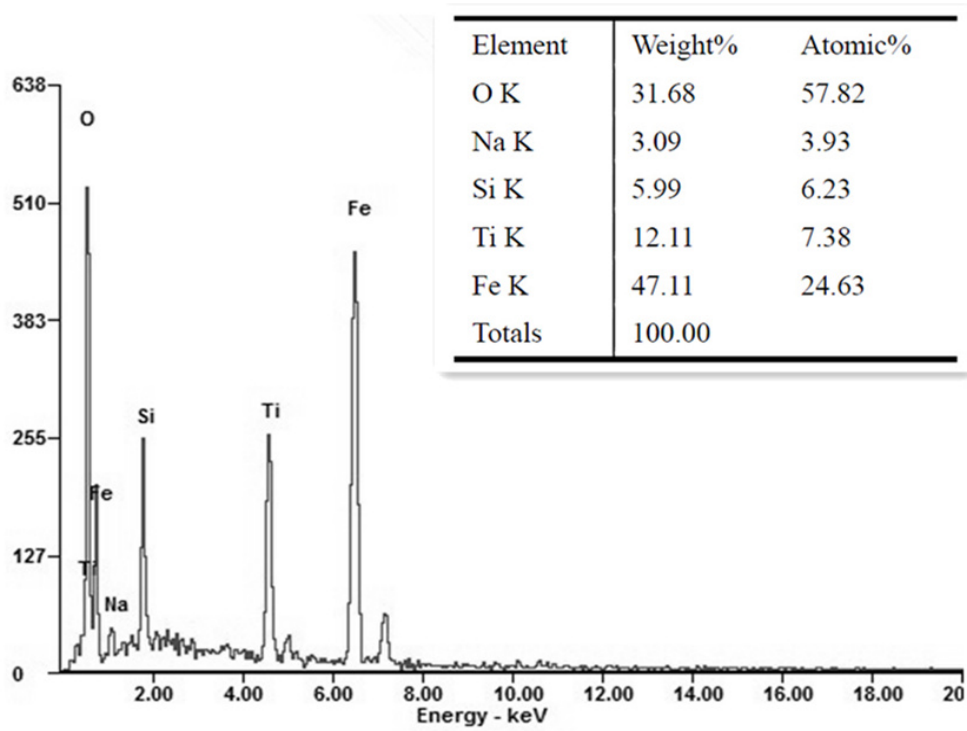


Figure S4. EDX results of Fe<sub>3</sub>O<sub>4</sub>@titanate microspheres.

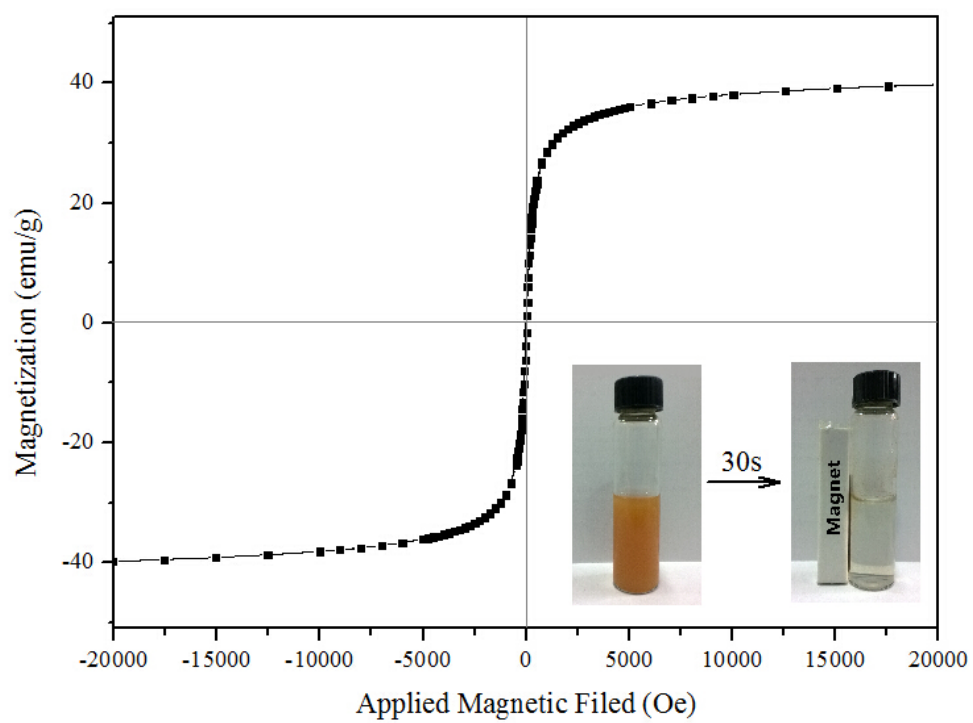


Figure S5. Magnetization loops for hierarchical  $\text{Fe}_3\text{O}_4$ @titanate microspheres(300K)