

## Supporting Information

### Hierarchical FeNi<sub>3</sub> assemblies with caltrop-like architectures: synthesis, formation mechanism, and magnetic properties

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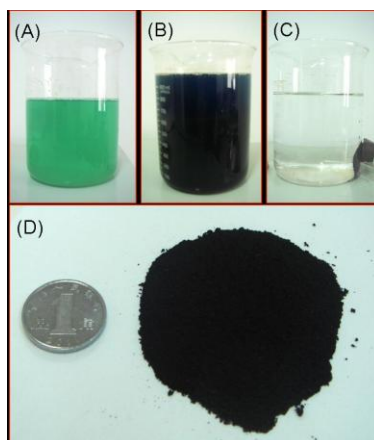


Fig. S1 Photographs of reaction solution at different stages: (A) Original aqueous solution of mixed NiCl<sub>2</sub> and FeCl<sub>2</sub> before reduction reaction, (B) At the beginning stage of reaction, (C) After the reaction, (D) Final products produced from 28.5 g NiCl<sub>2</sub>·6H<sub>2</sub>O and 8.0 g FeCl<sub>2</sub>·4H<sub>2</sub>O.

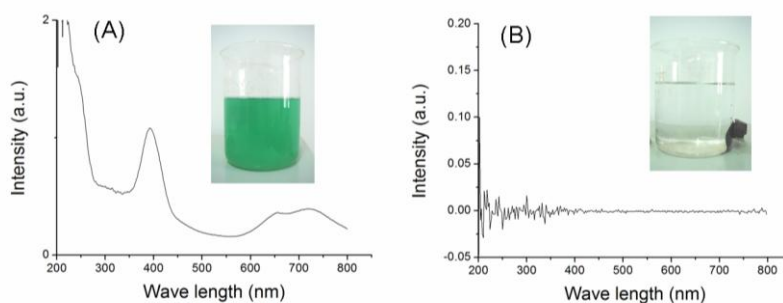


Fig. S2 UV-spectra of solutions: (a) before reaction, (b) after reaction.

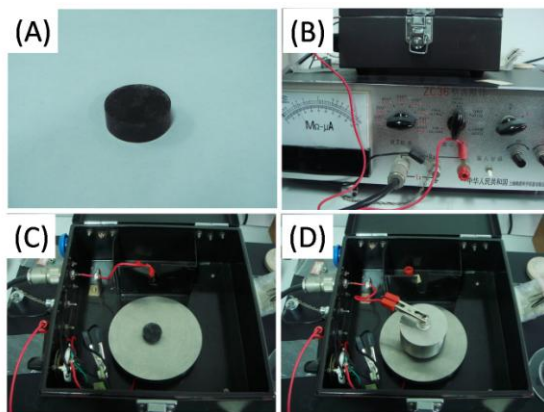


Fig. S3 (A) FeNi<sub>3</sub>/wax composite sample; (B) High resistivity meter; (C) Sample placed on the bottom electrode; (D) Measuring the resistivity.