## **Supplementary Material**

## Solvothermal Synthesis of Single Crystal Magnetite Hollow Sub-Microspheres: A Novel Formation Mechanism and Magnetic Properties

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**Figure S1** The SEM images of the products obtained at 200  $^{\circ}$ C for 16 h with water dosage of 4.0 mL (a), 10.0 mL (b) and 30.0 mL (c).



Figure S2 The XRD patterns of the products obtained at 200 °C for 16 h with different water dosage.



**Figure S3** The FTIR spectrum taken from KBr pellets that contained the products obtained at °C for 16 h without water.