

## Supporting Information

### A facile approach to achieve bioinspired PDMS@Fe<sub>3</sub>O<sub>4</sub> fabric with switchable wettability for liquid transport and water collection

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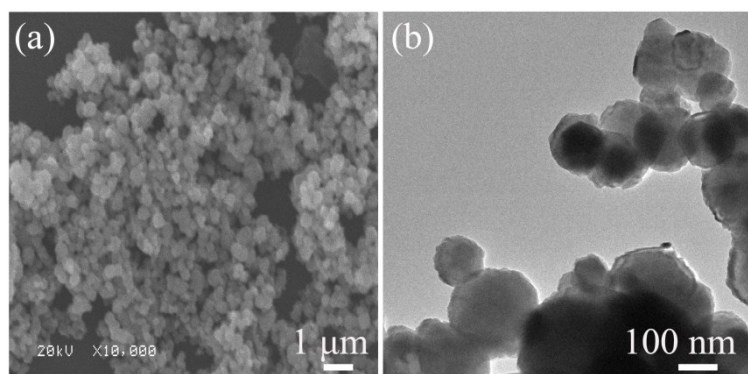
**This ESI contains:**

Supplementary Tables

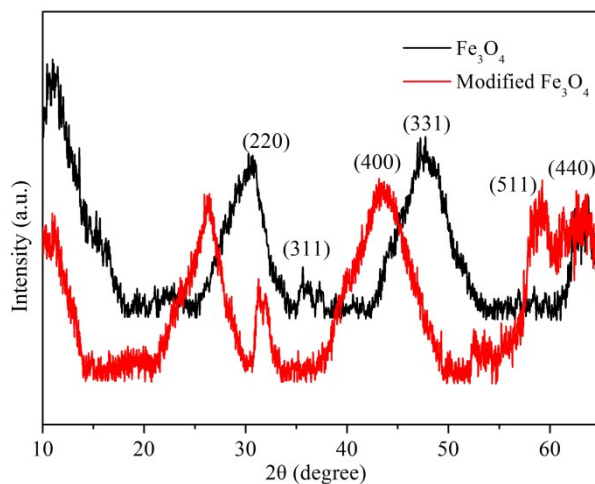
**Table S1** Water collection rates of the as-prepared samples

Sample (Fe <sub>3</sub> O <sub>4</sub> %)	0	50	55	60	65	70	75	80
$K_0$ (Slope)	1099.5	1161.6	1410.4	1816.1	2445.2	2737.8	3363.3	2790.3
WCR (mg h <sup>-1</sup> cm <sup>-1</sup> )		26.9	134.6	310.2	582.6	709.2	980.0	731.9

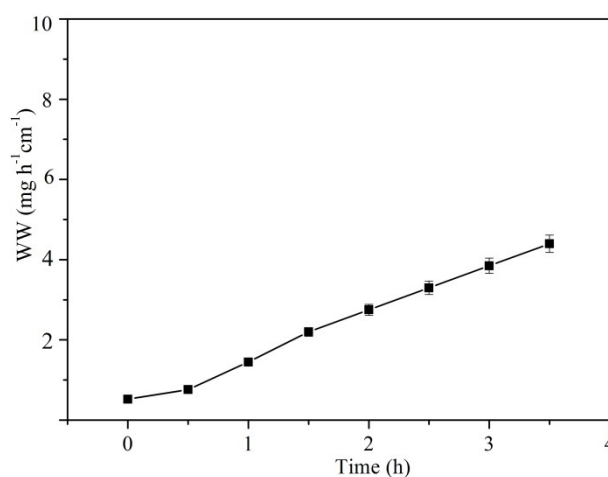
Supplementary Figures



**Fig. S1†** SEM (a) and TEM (b) images of as-prepared  $\text{Fe}_3\text{O}_4$  NPs.



**Fig. S2†** (a) XRD pattern of the as-prepared  $\text{Fe}_3\text{O}_4$  NPs and modified  $\text{Fe}_3\text{O}_4$  NPs.



**Fig. S3†** Weight of water of the contrast sample water-collecting for 4 h.

#### Supplementary Movies

**Movie S1†** A water droplet is pinned onto the superhydrophobic surface and became immobile.

**Movie S2†** The switching ability between superhydrophobic and slippery states.

**Movie S3†** The unidirectional water delivery by manipulating the magnetic field direction.

**Movie S4†** The Self-cleaning behavior of PDMS@ $\text{Fe}_3\text{O}_4$  fabric (water dyed by alizarin red).

**Movie S5†** The fog-harvesting process of PDMS@Fe<sub>3</sub>O<sub>4</sub> fabric by adjusting microcilia direction.