

Supplementary Information

**Efficient *in-situ* Generation of H<sub>2</sub>O<sub>2</sub> by Novel Magnesium-Carbon Nanotubes  
Composites**

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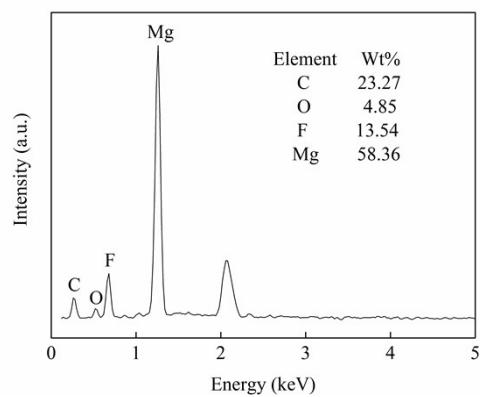
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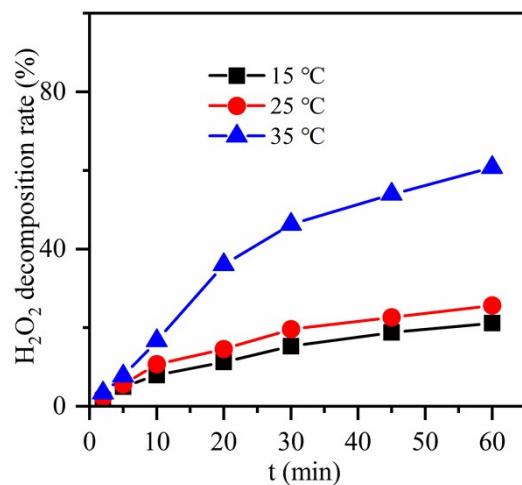
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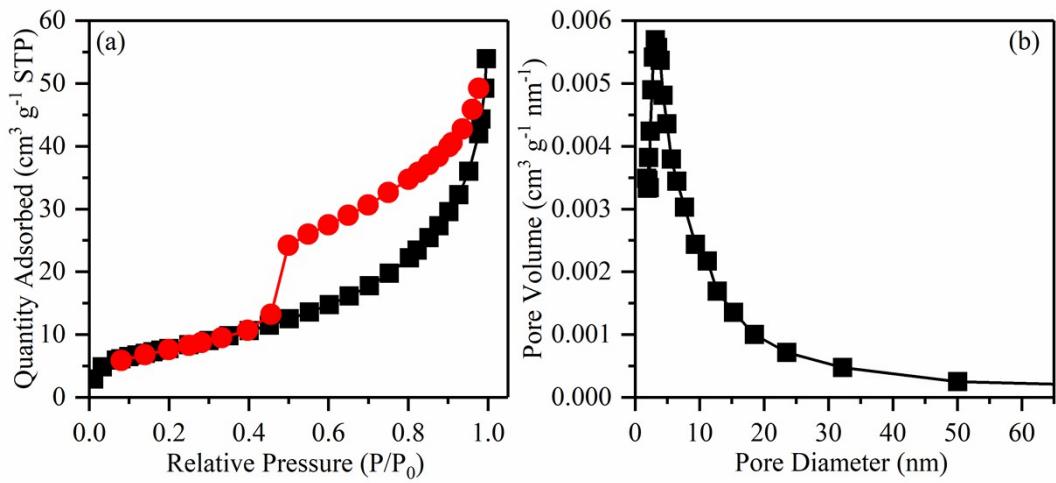
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**Fig. S1** EDS spectrum of Mg-CNTs prepared with PVDF.



**Fig. S2** The effect of Mg-CNTs composite on  $\text{H}_2\text{O}_2$  decomposition at different temperature.



**Fig. S3** (a) Nitrogen adsorption/desorption isotherms and (b) pore distribution of Mg-CNTs after in-situ generation of H<sub>2</sub>O<sub>2</sub>.