

# Supplementary Information

## Low-Temperature Hydrothermal Synthesis and Structure Control of Nano-Sized CePO<sub>4</sub>

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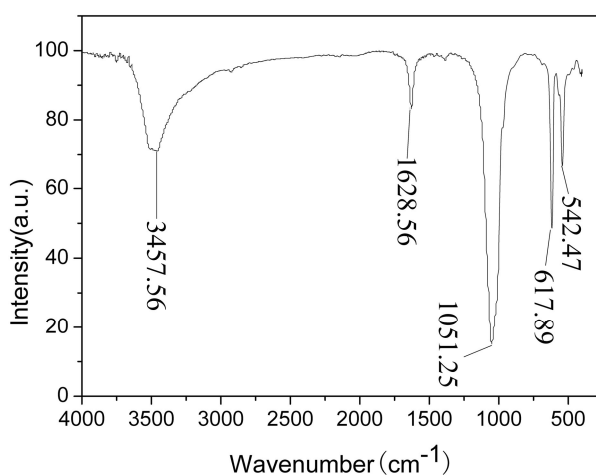


Fig. S1 FTIR spectra of the CePO<sub>4</sub>·0.5H<sub>2</sub>O prepared with the reactant PO<sub>4</sub>/Ce molar ratios of 10

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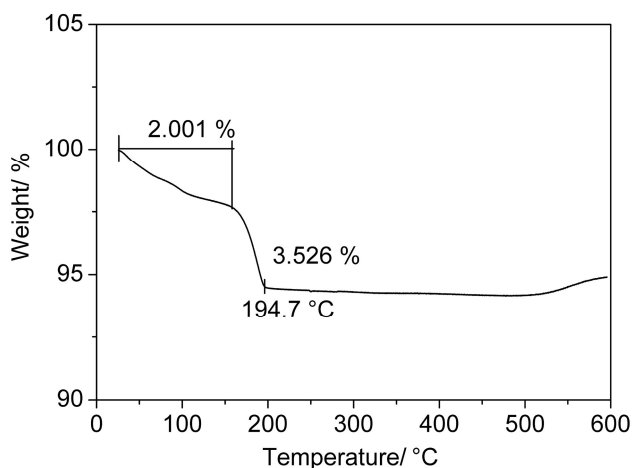
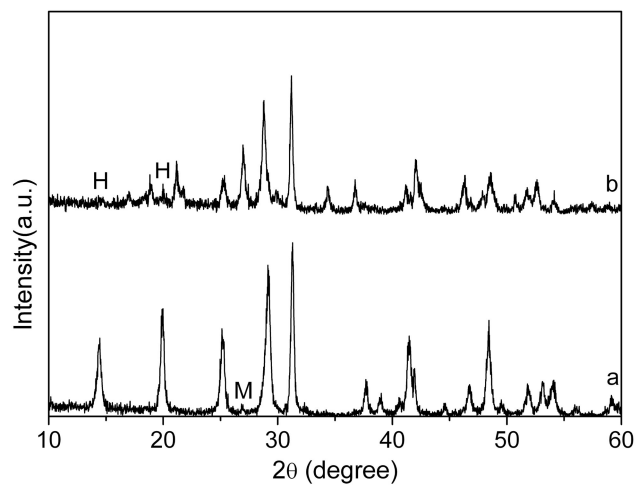


Fig. S2 TGA plot of the CePO<sub>4</sub>·0.5H<sub>2</sub>O prepared with the reactant PO<sub>4</sub>/Ce molar ratios of 10.



**Fig. S3** XRD patterns of the products prepared with different reactant  $\text{PO}_4/\text{Ce}$  molar ratios of (a) 120, (c) 520 (H: hexagonal phase; M: monoclinic phase).