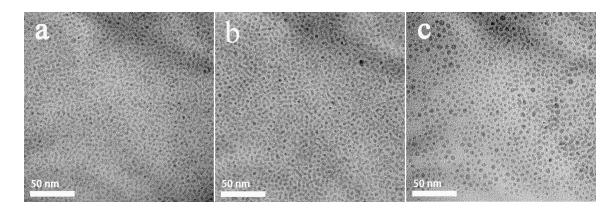
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## **Electronic Supplementary Information**

## $Facile\ synthesis\ of\ ultrasmall\ hexagonal\ NaYF_4:Yb^{3+},\ Er^{3+}\ upconversion\ nanocrystals$ $through\ temperature\ oscillation$

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**Fig. S1** TEM images of the UCNPs synthesized at different reaction temperatures: (a) 260 °C; (b) 270 °C; (c) 280 °C. Other synthesis conditions are the same as the standard sample in Fig. 1a.

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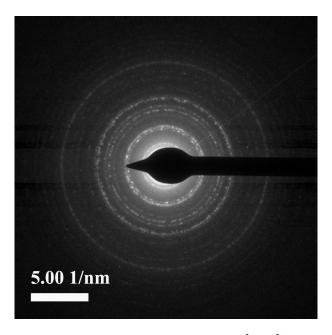


Fig. S2 SAED pattern of the 10.8 nm NaYF<sub>4</sub>:  $Yb^{3+}$ ,  $Er^{3+}$  nanocrystals.