

Electronic Supporting Information

Double role of the hydroxy group for water dispersibility and luminescence of REF_3 (RE=Yb,Er,Tm) based

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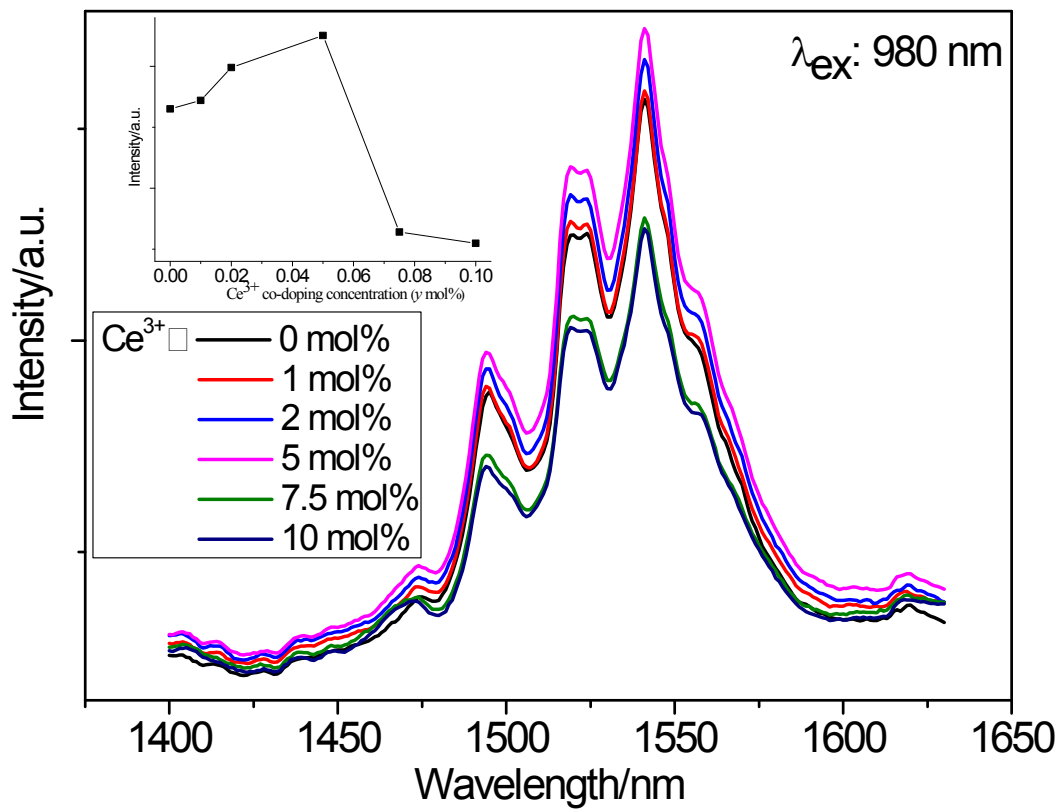


Fig. S1 NIR emission spectra of $\text{YbF}_3:\text{Er}^{3+},\text{Ce}^{3+}(2/\gamma \text{ mol}\%)$ mesocrystals with different Ce^{3+} doping contents (the inset shows the dependence of NIR emission intensity on Ce^{3+} doping level).

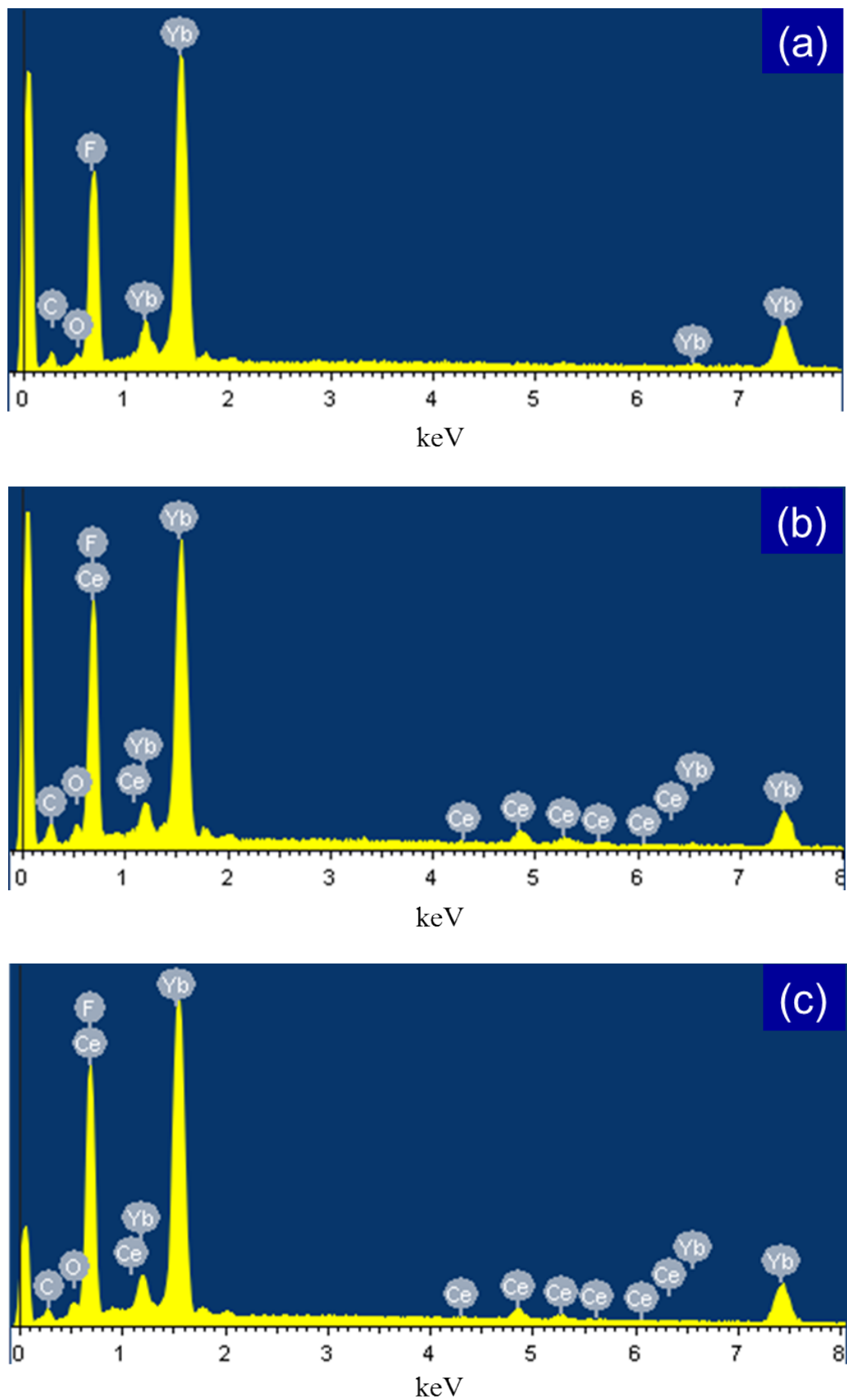


Fig. S2 EDS patterns of as-obtained $\text{YbF}_3:\text{Er}^{3+}, \text{Ce}^{3+}$ ($2/y$ mol%) mesocrystals with different Ce^{3+} doping contents [a) $y = 1$, b) $y = 5$, c) $y = 10$].