

Supporting Information

Percolation limited emission intensity from up-converting NaYF₄:Yb³⁺, Er³⁺ nanocrystals – – a single nanocrystal optical study

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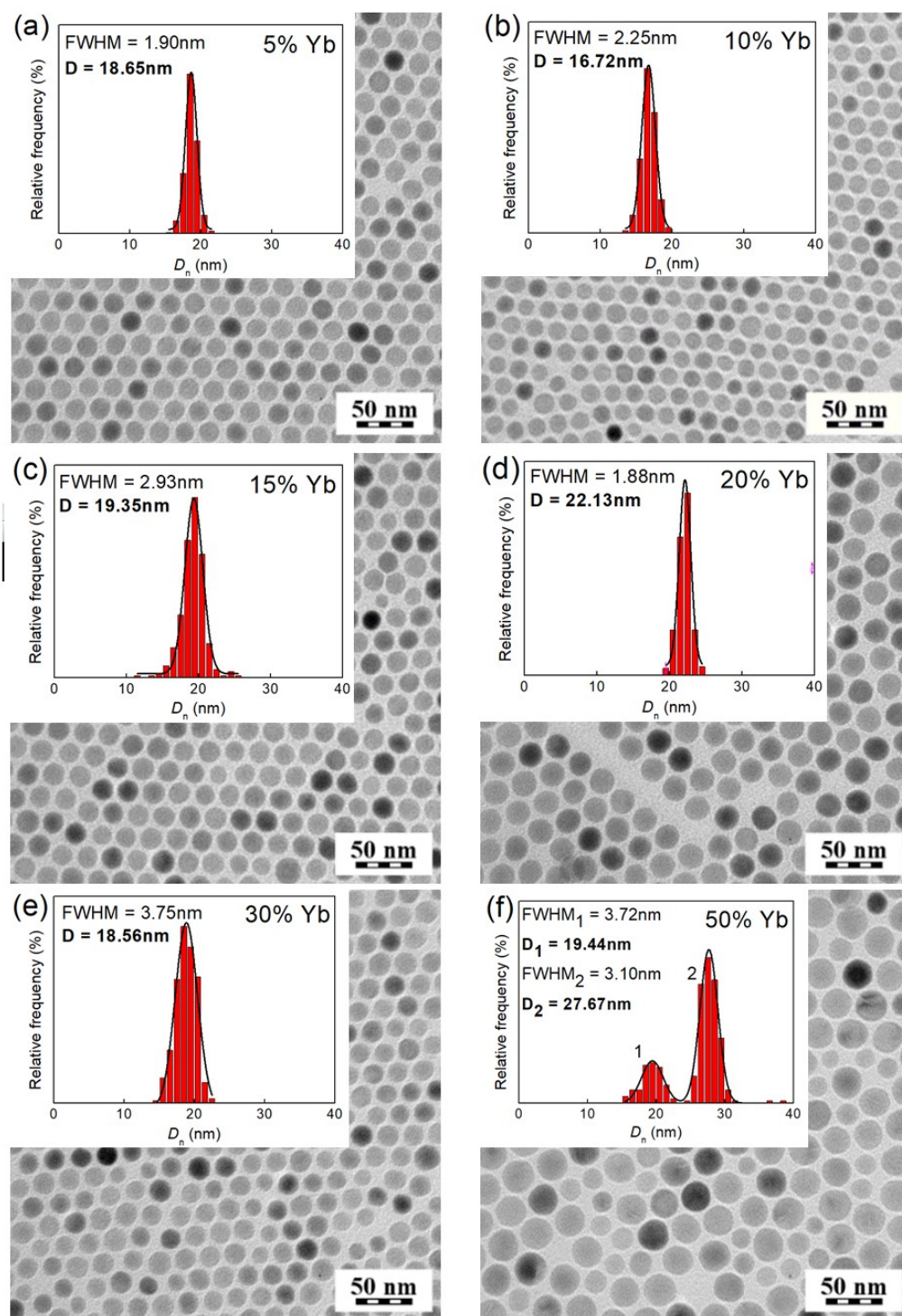


Figure S1. TEM images, size distributions, and mean particle diameters of core NaYF₄:Yb(X%), Er(2%) nanocrystals with different Yb³⁺ concentrations.

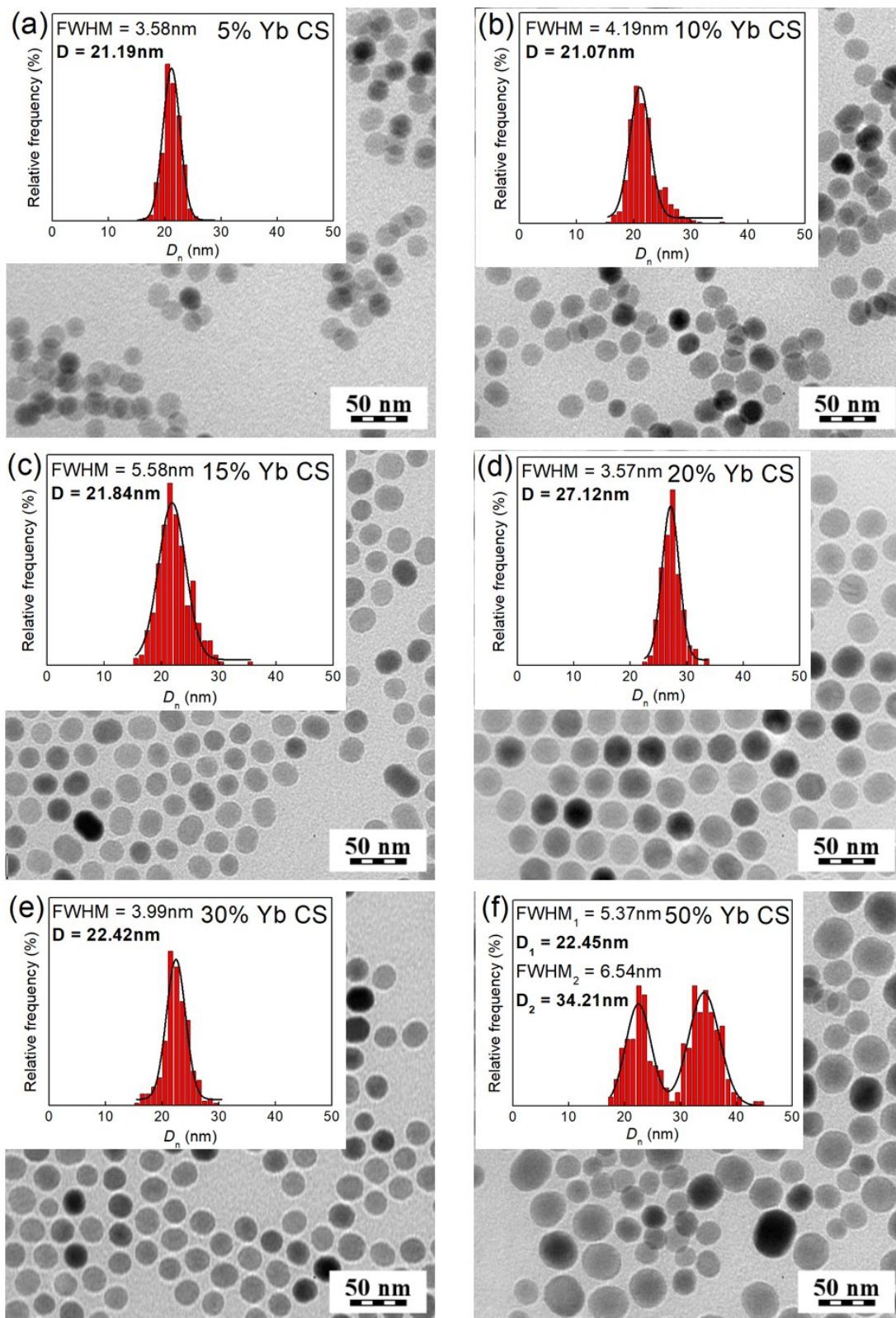


Figure S2. TEM images, size distributions, and mean particle diameters of core-shell $\text{NaYF}_4:\text{Yb}(X\%), \text{Er}(2\%)$ nanocrystals with different Yb^{3+} concentrations.

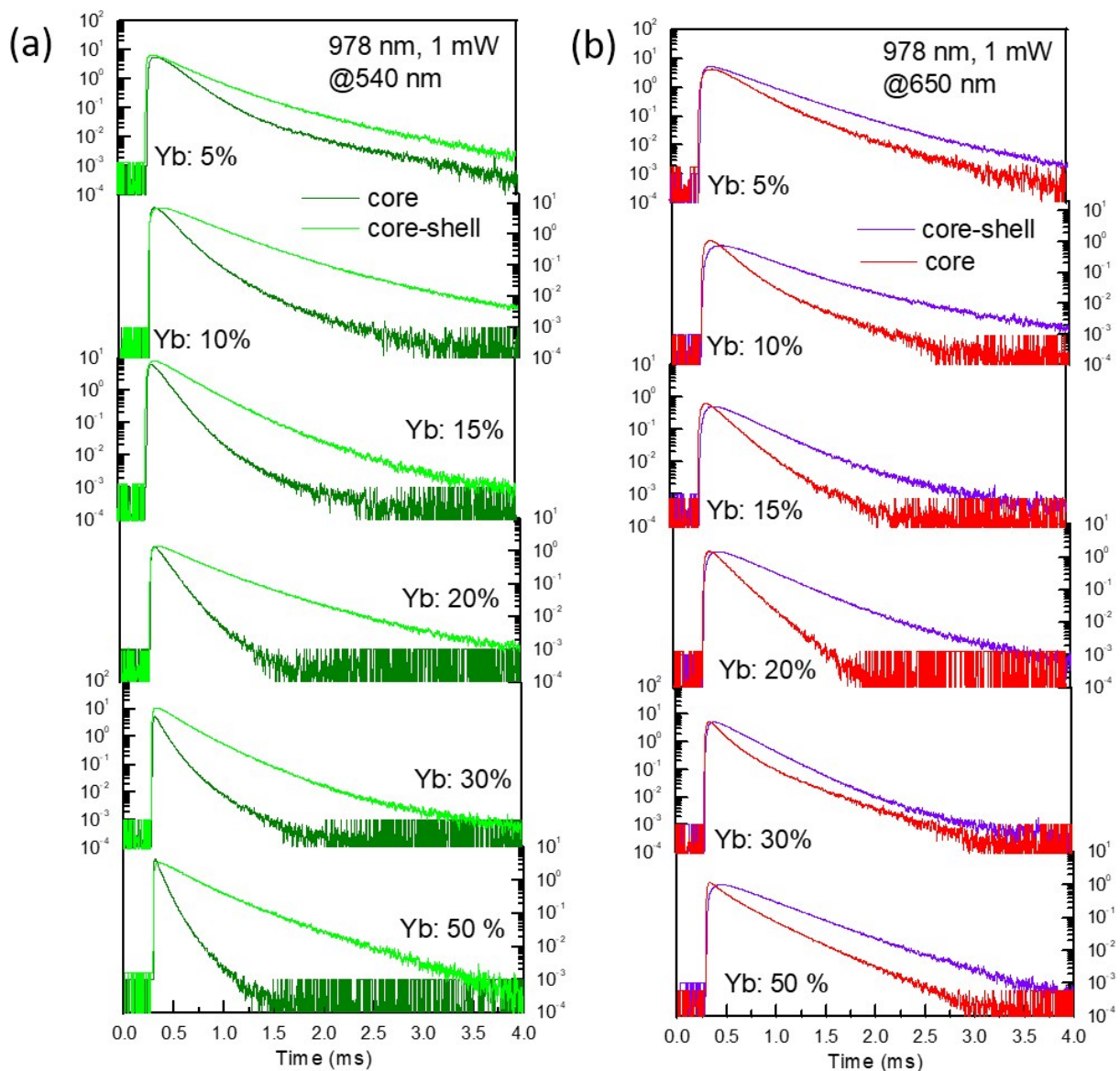


Figure S3. Luminescence decay curves of core and core-shell $\text{NaYF}_4:\text{Yb}^{3+}(\text{X}\%), \text{Er}^{3+}(2\%)$ nanocrystals with different Yb^{3+} concentrations; emissions at (a) 545 and (b) 650 nm; excitation at 978 nm, 20 Hz, 7 ns pulse.