One-Dimensional Hexagonal-Phase $NaYF_4$: Controlled Synthesis, Self-Assembly, and Morphology-Dependent Up-conversion Luminescence Properties

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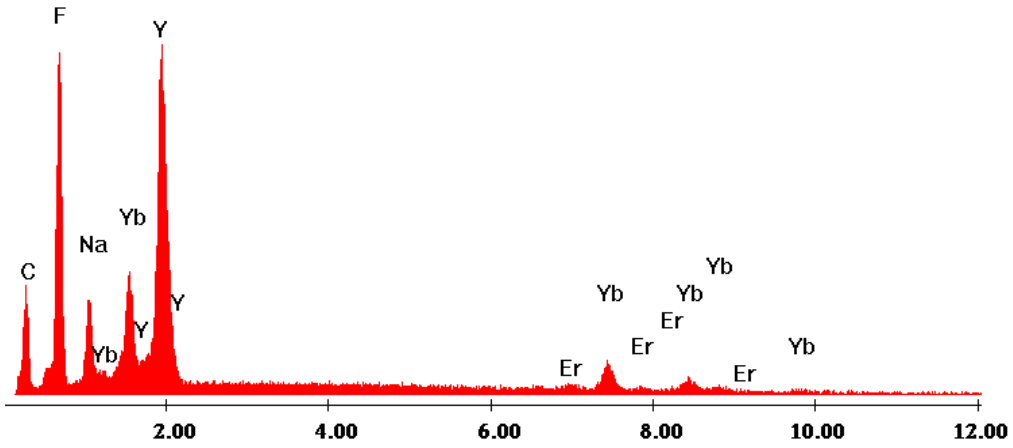

Figure S1. EDS spectrum of the sample synthesized with 1.6 mmol of $Y(NO_3)_3$, 0.36 mmol of $Yb(NO_3)_3$, and 0.04 mmol of $Er(NO_3)_3$ as source materials.

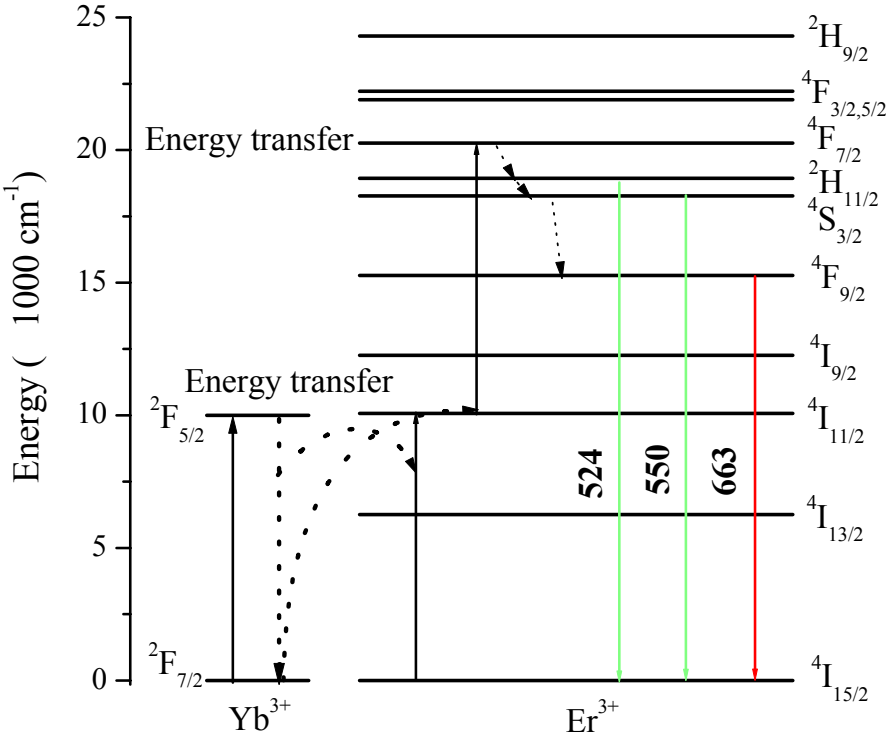

Figure S2. Energy level diagrams of Er^{3+} and Yb^{3+} ions and up-conversion emission mechanisms (λ_{ex}= 980 nm).

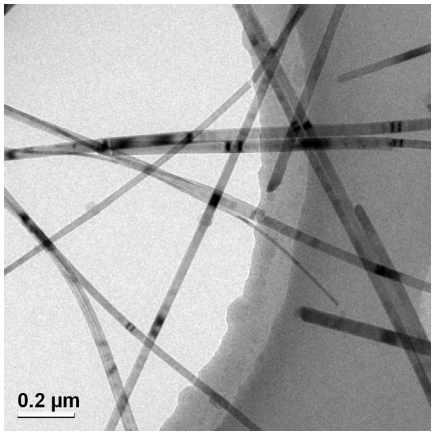

Figure S3. TEM image of 18 mol % Yb^{3+}, 2 mol % Er^{3+}-codoped-$NaYF_4$ nanowires.

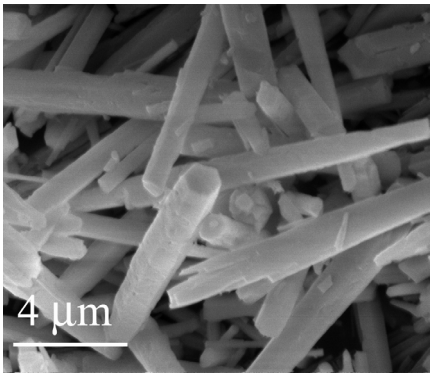

Figure S4. FE-SEM image of 18 mol % Yb^{3+}, 2 mol % Er^{3+}-codoped-$NaYF_4$ submicrorods.

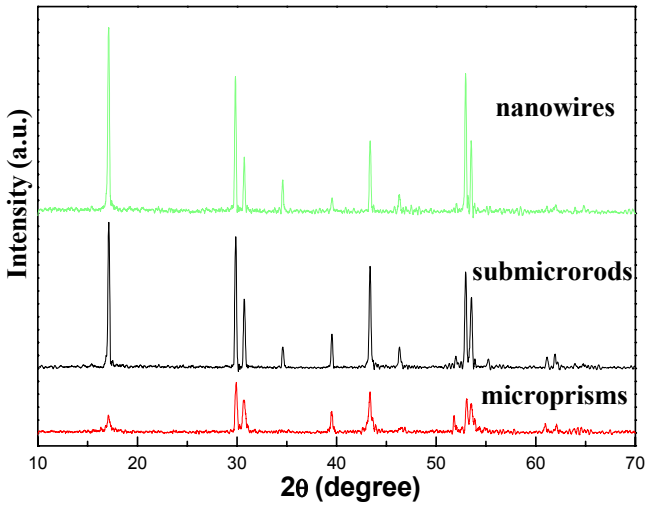

Figure S5. XRD patterns of 18 mol % Yb^{3+}, 2 mol % Er^{3+}-codoped $NaYF_4$ nanowires, submicrorods, and microprisms under the same measurement conditions.