

Supporting Information

Spatial control of upconversion emission in a single fluoride microcrystal via excitation mode and native interference effect

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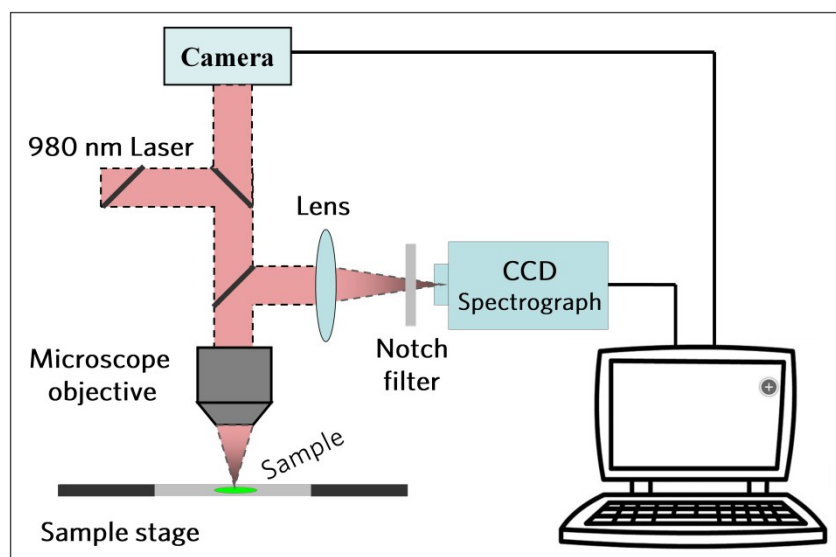


Fig. S1 Confocal microscopy system to measure the spectra of a single micro-particle. Note that the inclination of the loading platform can be adjusted continuously by the screws on the bottom.

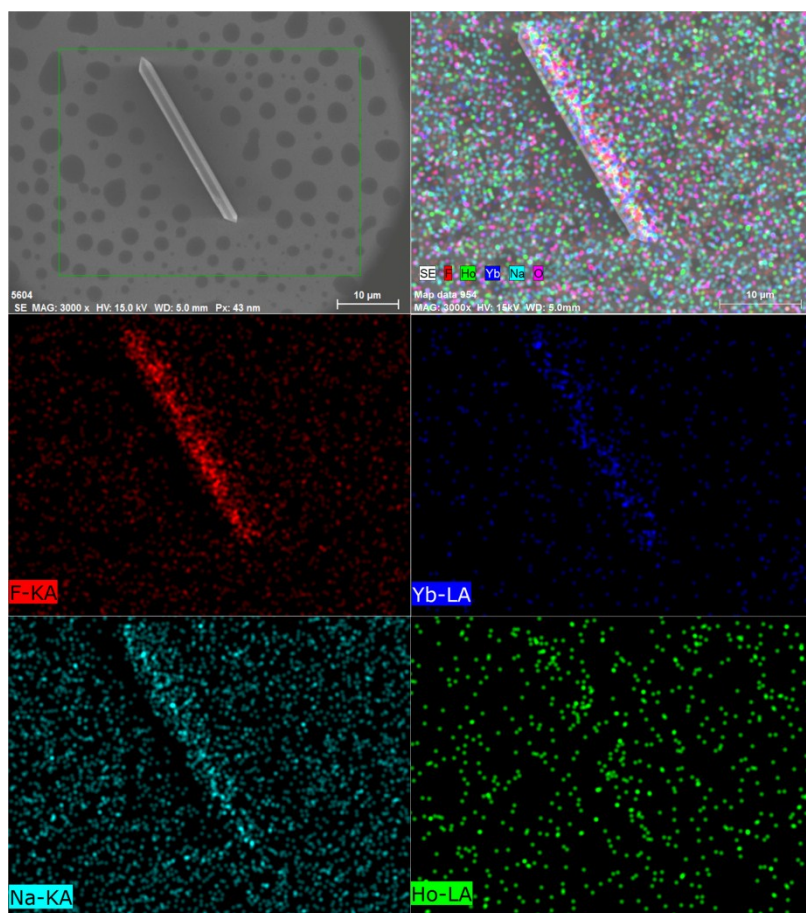


Fig. S2 Element mapping of the $\text{NaYbF}_4: \text{Ho}^{3+}$ microcrystals.

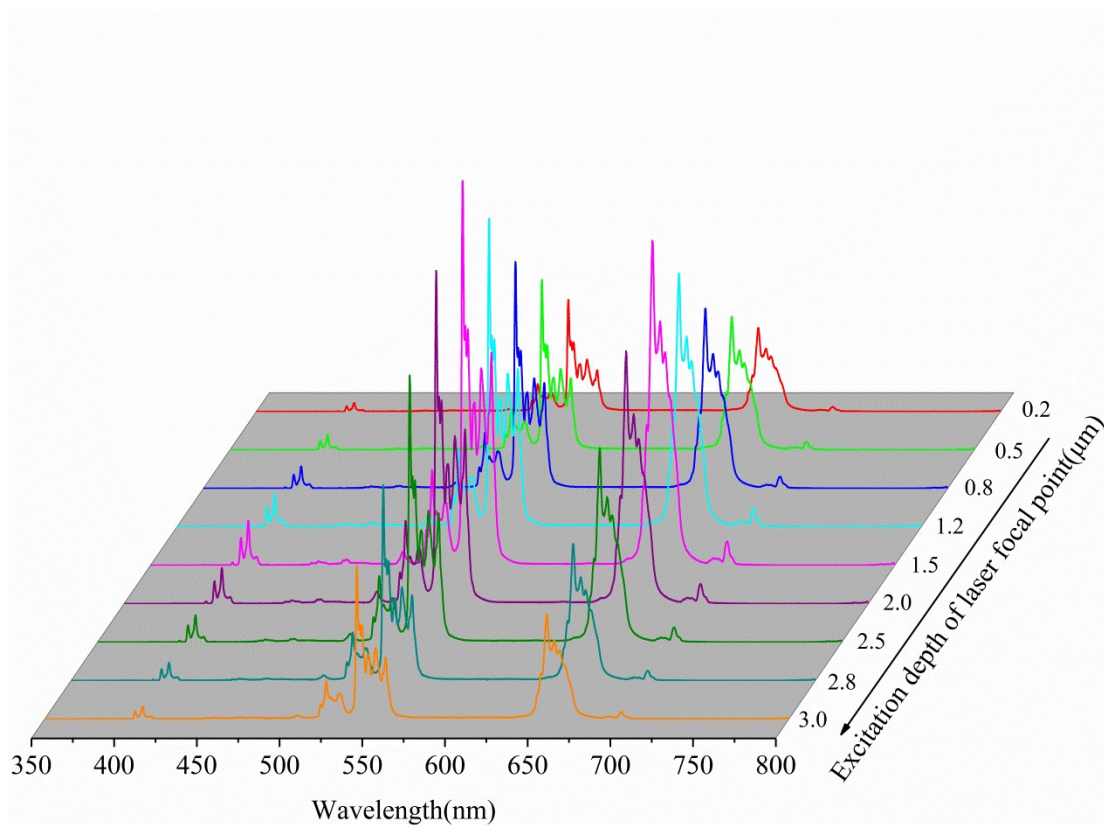


Fig. S3 Excitation depth-dependent UC emission spectra in a single short NaYF₄: Yb³⁺/Er³⁺ microrod excited with a 980-nm laser, the laser power is 40 mW/cm².