

Supporting Information

Flying Upconversion Fluorescent Particles and Direct Observation of Energy transfer and Depopulation Processes

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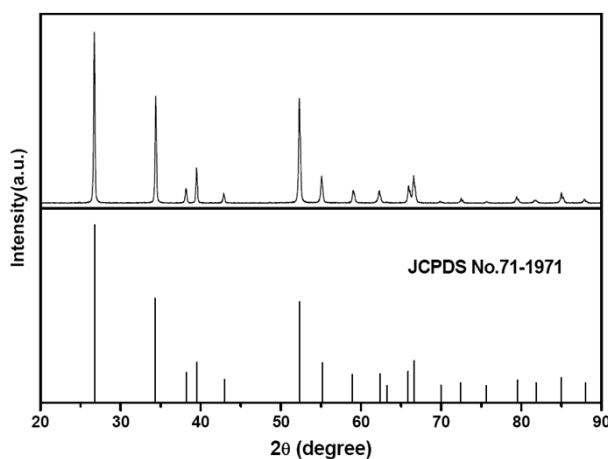


FIG. S1. X-ray diffraction pattern of ZnF₂:Yb³⁺, Tm³⁺ target. The standard datum for ZnF₂ (JCPDS No.12-0797) is also presented in the figure for comparison.

Fig. S1 shows the XRD pattern of ZnF₂:Yb³⁺/Tm³⁺ target. It is clear that all the diffraction peaks can be well indexed to tetragonal phase ZnF₂ (JCPDS No.71-1971). In addition, no other impurity peaks can be detected from the XRD pattern, indicating that the samples is single-phased and RE³⁺ ions have effectively incorporated into the ZnF₂ host lattices.