

Supporting Information

Enhancing Thermometric Precision: Modulating Temperature of Maximum Sensitivity via Erbium Dopant Addition in Ba₂GdV₃O₁₁: Tm³⁺/Yb³⁺ Nano Phosphors

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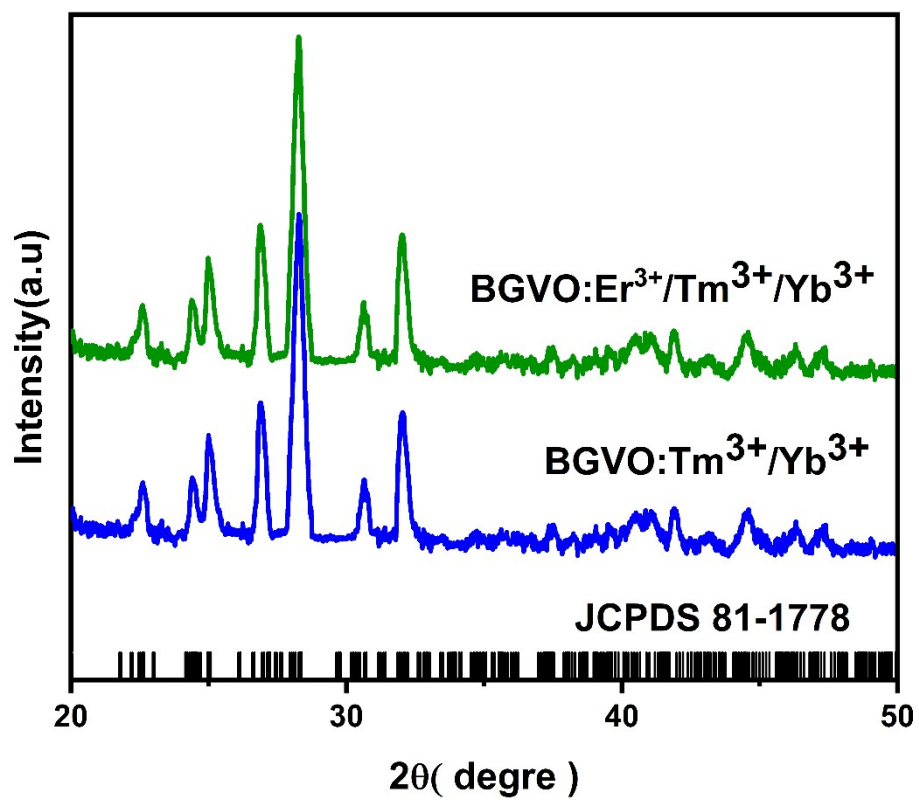


Figure S 1: XRD patterns of BGVO doped Tm³⁺/Yb³⁺ and Er³⁺/Tm³⁺/Yb³⁺.

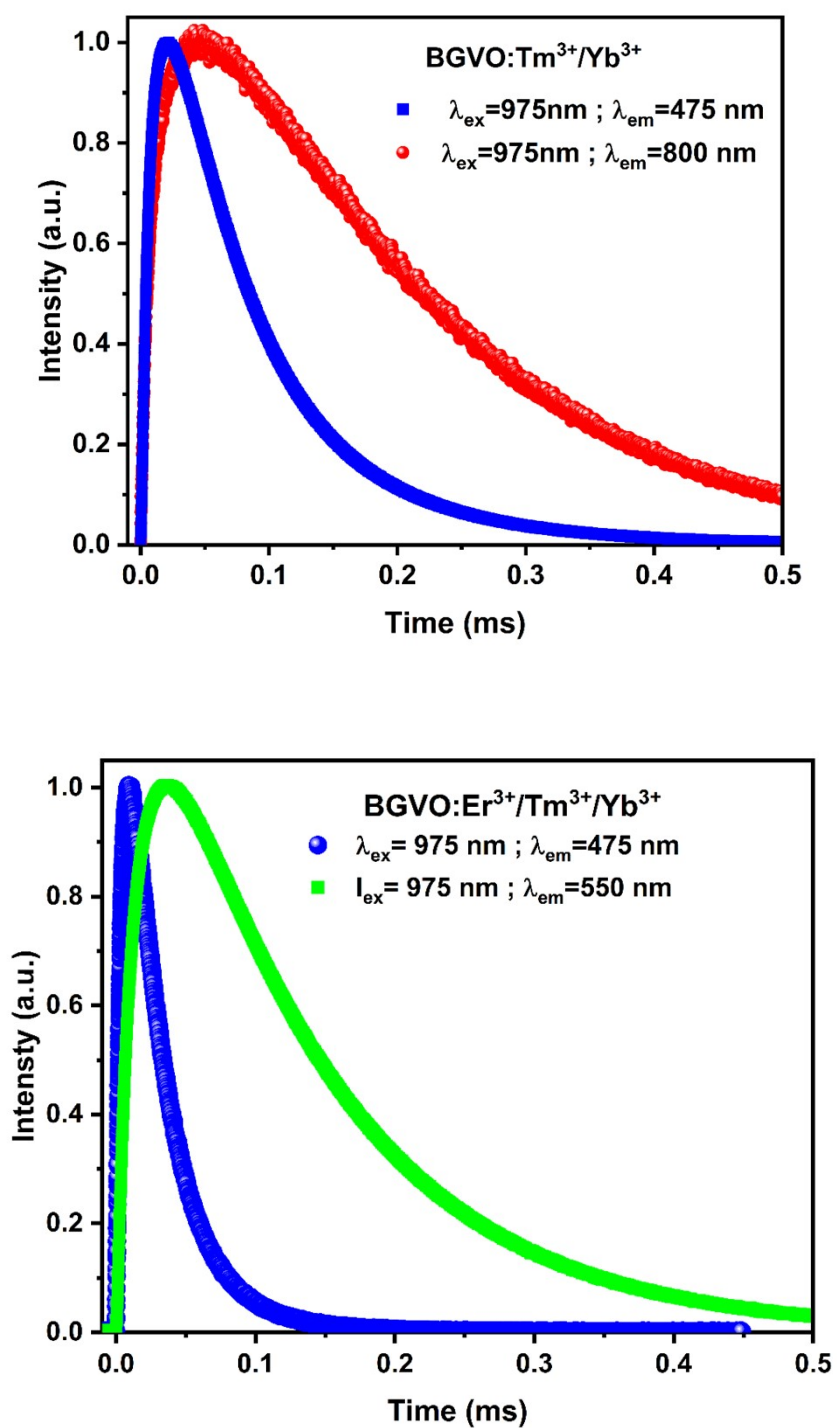


Figure S2: UC emission decay curves of Tm³⁺/Yb³⁺ doped BGVO (a) emission 800nm , (b) emission 475 nm and (c) 650 nm with excitation at 975 nm.

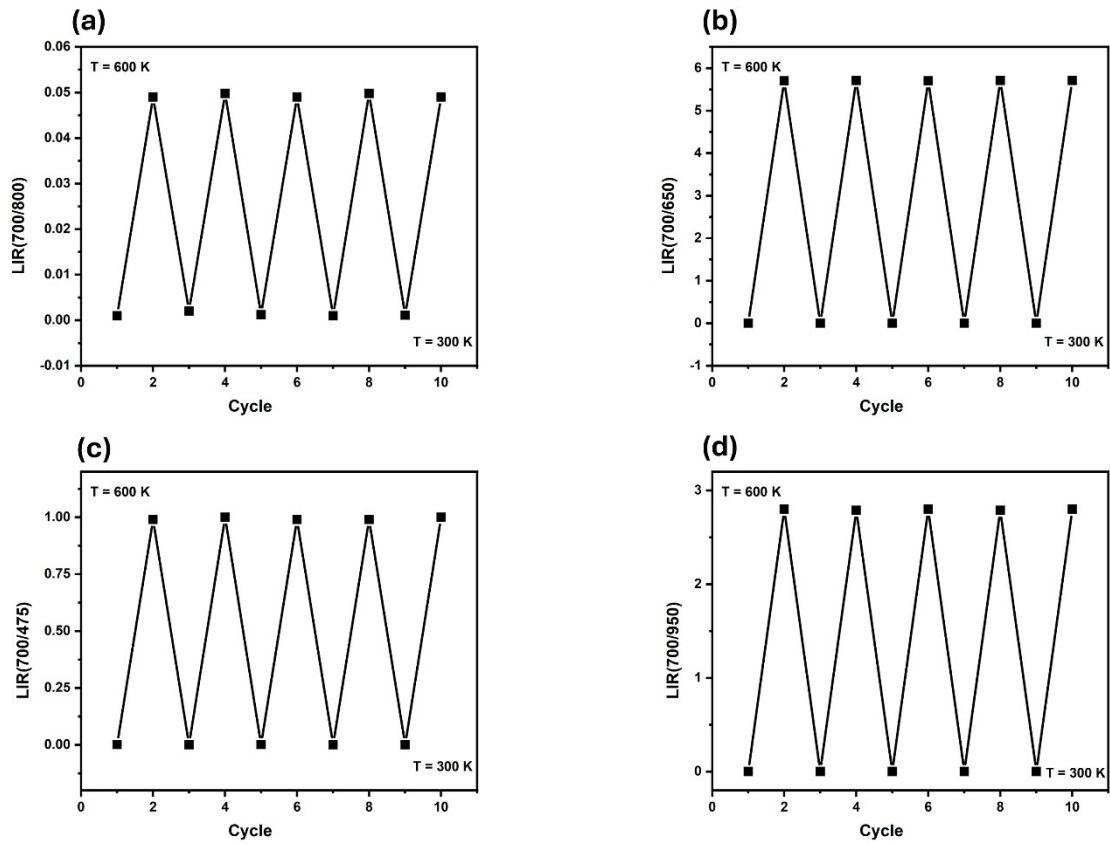


Fig. S3: Repeatability assessment (R) (a) 700/800 nm, (b) 700/650 nm (c) 700/475 nm and (d) 700/950 for $\text{Ba}_2\text{GdV}_3\text{O}_{11}:\text{Er}^{3+}/\text{Tm}^{3+}/\text{Yb}^{3+}$

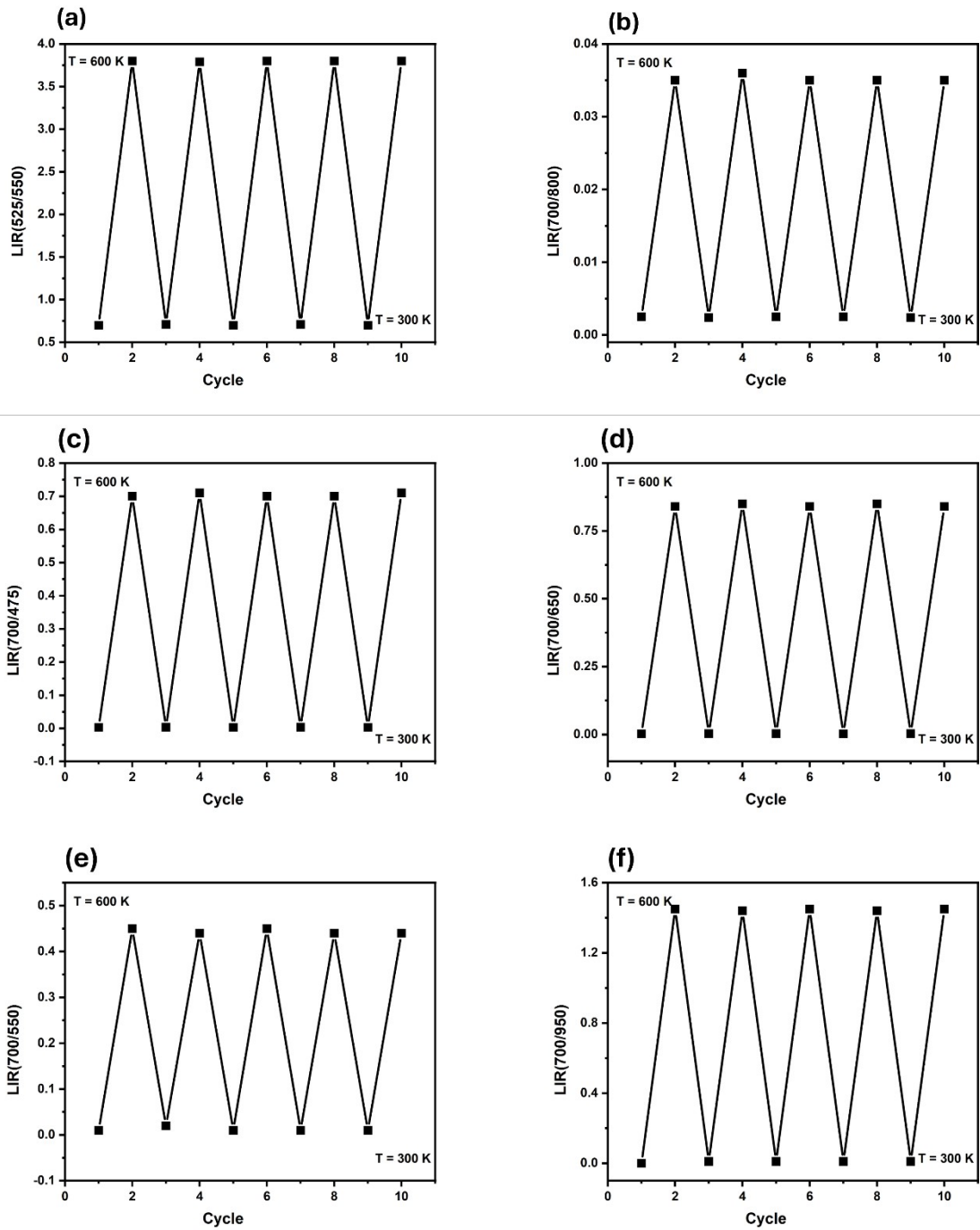


Fig. S4: Repeatability assessment (R) (a) 525/550 nm (b) 700/800 nm (c) 700/475 nm (d) 700/650 nm (e) 700/550 nm and (f) 700/950 nm for $\text{Ba}_2\text{GdV}_3\text{O}_{11}:\text{Tm}^{3+}/\text{Yb}^{3+}$