

Supplementary Information

Concentration Quenching Inhibition and Fluorescence Enhancement in Eu³⁺-doped Molybdate Red Phosphors with Two-phase Mixing

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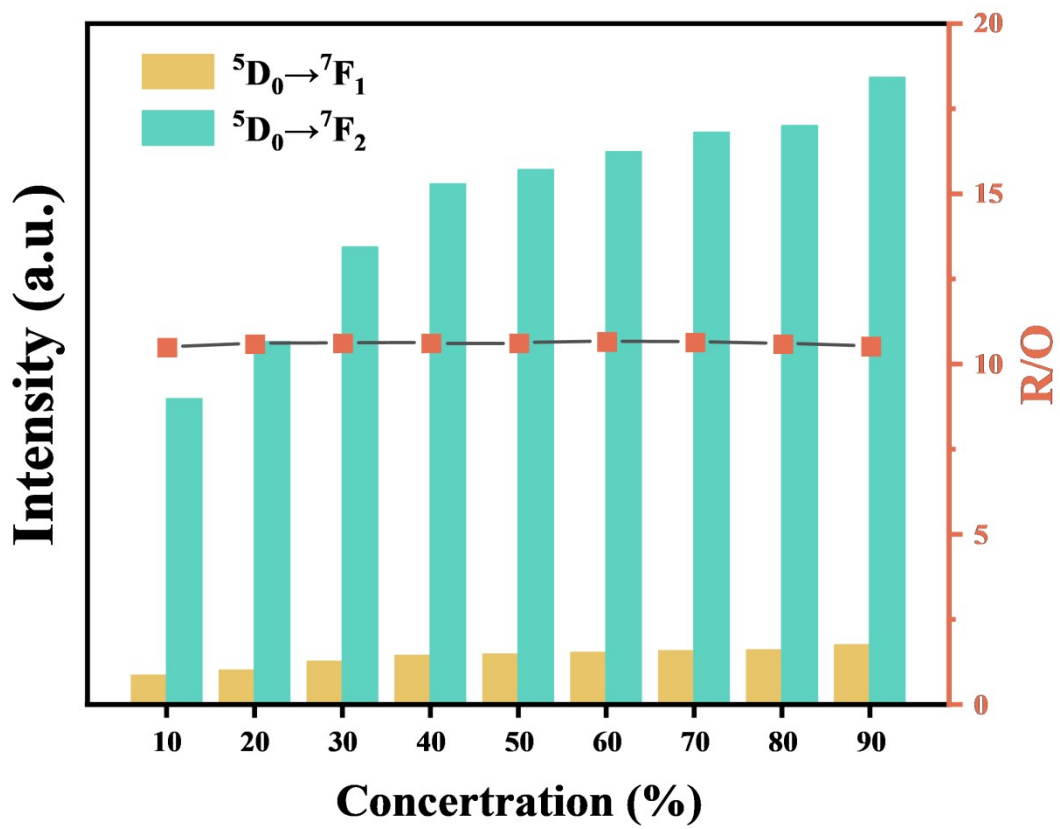


Fig. S1. Integrated emission intensity of NIMO: $x\text{Eu}^{3+}$ and the ratios of ${}^5D_0\text{-}{}^7F_2 / {}^5D_0\text{-}{}^7F_1$ (R/O) with different Eu^{3+} doping concentrations.

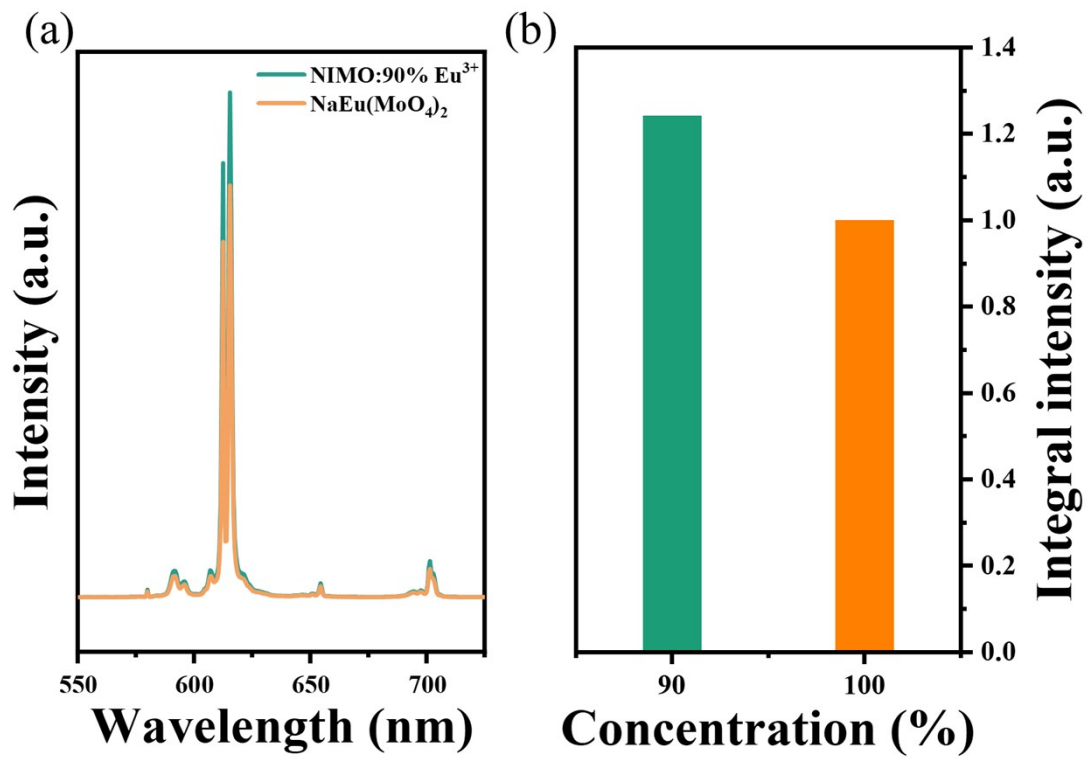


Fig. S2. (a) Comparison of PL spectra between NIMO:90%Eu³⁺ and NEMO. (b) integrated PL intensity of NIMO:90%Eu³⁺ and NEMO.

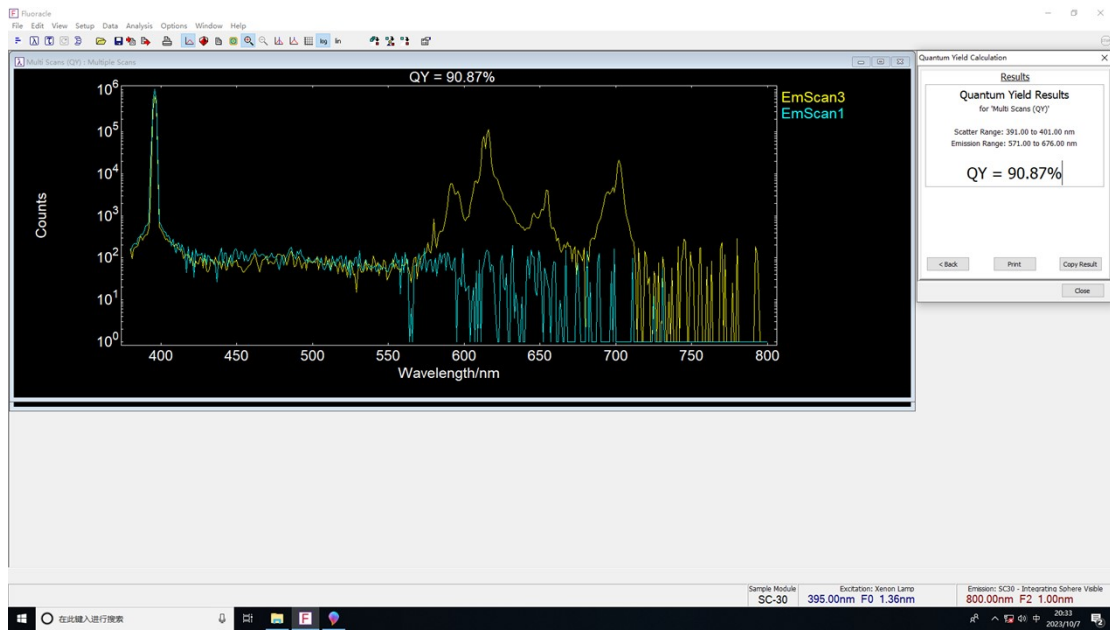


Fig. S3. Absolute quantum yield of NIMO:90%Eu³⁺ phosphor with the excitation wavelength of 395nm

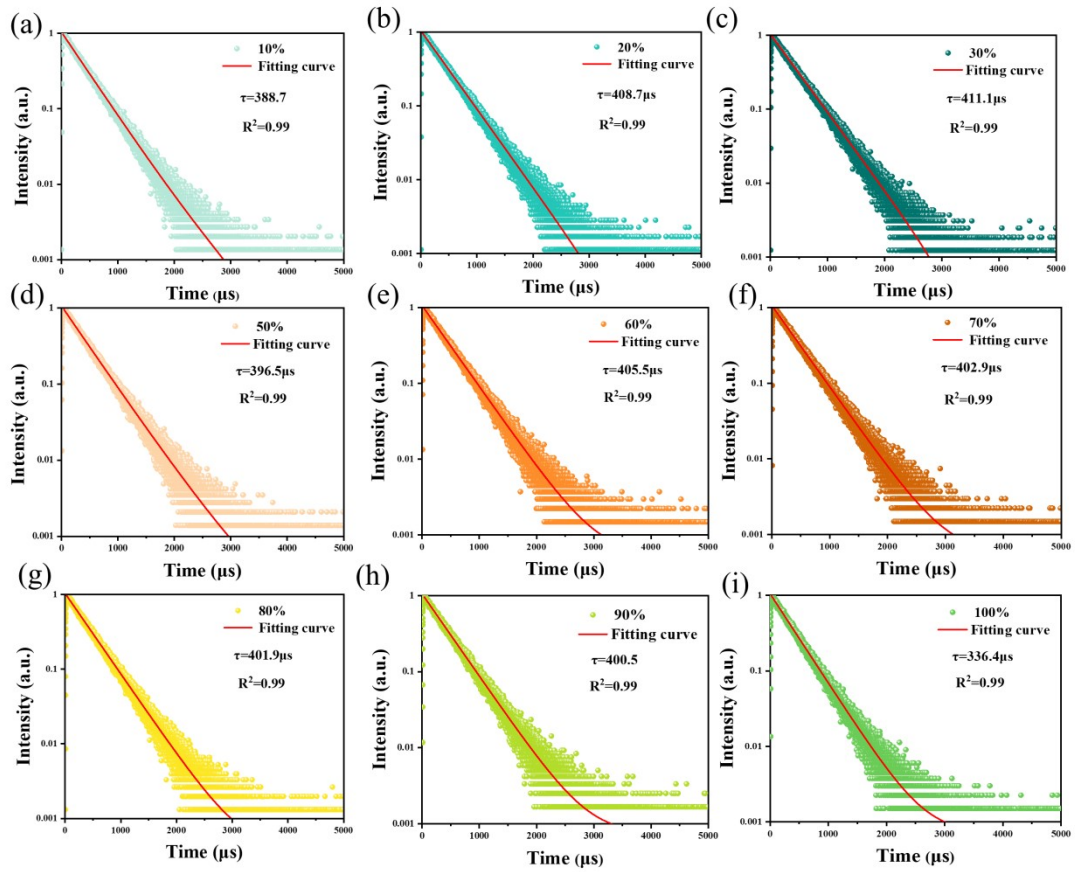


Fig. S4. Fluorescence decay curves and fitting lines of $\text{NaIn}(\text{MoO}_4)_2:x\% \text{Eu}^{3+}$ with different Eu^{3+} doping concentrations.

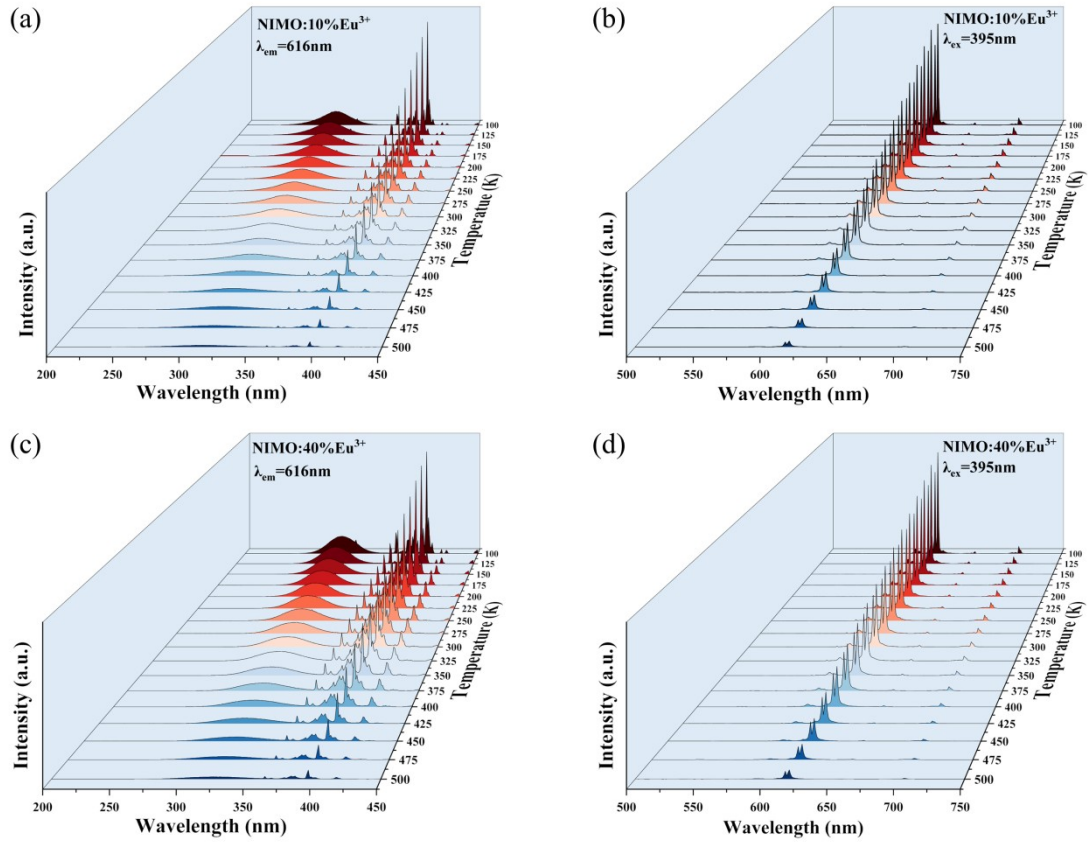


Fig. S5. (a) PL and (b) PLE spectra of $\text{NaIn}(\text{MoO}_4)_2:10\%\text{Eu}^{3+}$ with varying temperature ranging from 100 to 500K. (c) PL and (d) PLE spectra of $\text{NaIn}(\text{MoO}_4)_2:40\%\text{Eu}^{3+}$ with varying temperature ranging from 100 to 500K.