

Supplementary Information

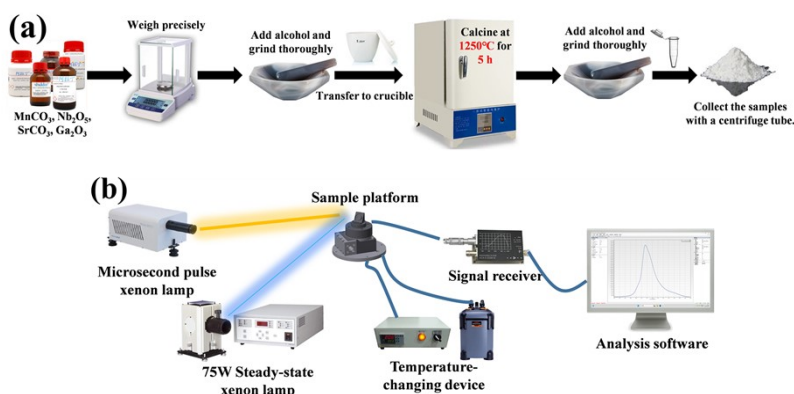


Fig. S1. (a) The fabrication process of the red emitting $\text{Sr}_4\text{GaNbO}_8:\text{Mn}^{4+}$ phosphors. (b) Schematic diagram of the experimental setup used to study the luminescent lifetime, excitation and emission of the sample.

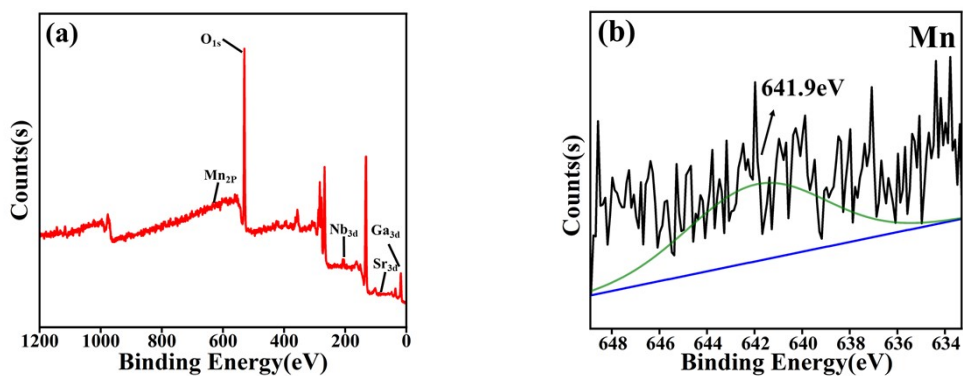


Fig. S2. (a) XPS survey scanning spectra of $\text{Sr}_4\text{GaNbO}_8:0.02\text{Mn}^{4+}$ phosphor. (b) high-resolution XPS spectra of Mn in $\text{Sr}_4\text{GaNbO}_8:0.02\text{Mn}^{4+}$ phosphor.