

Supporting information

Mn⁴⁺,Li⁺ co-doped SrMgAl₁₀O₁₇ phosphor-in-glass: Application in high-power warm w-LEDs

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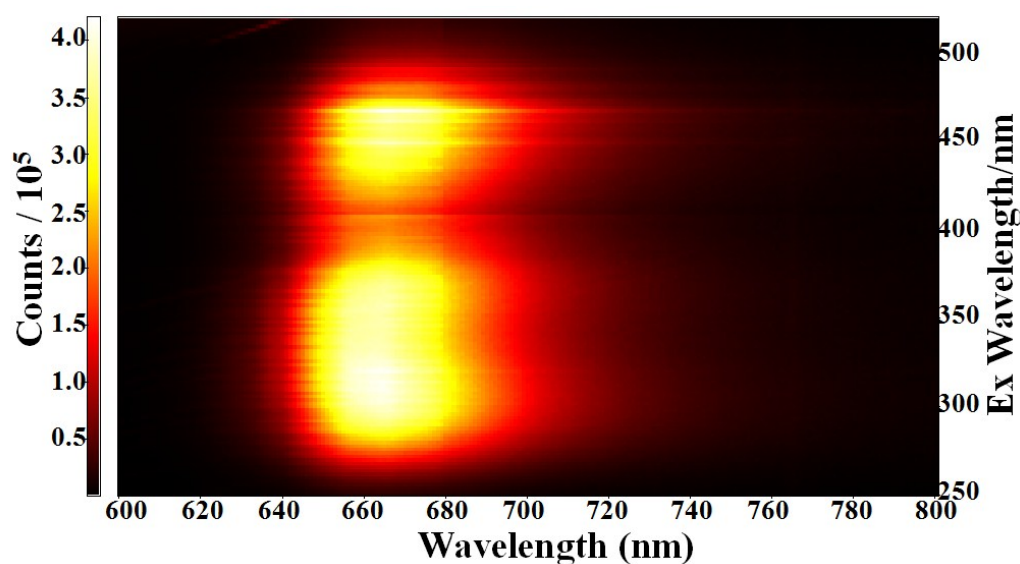


Fig. S1 Two-dimensional (2D) fluorescence topographical maps of as-prepared SAM:0.05%Mn⁴⁺, 0.05%Li⁺ sample.

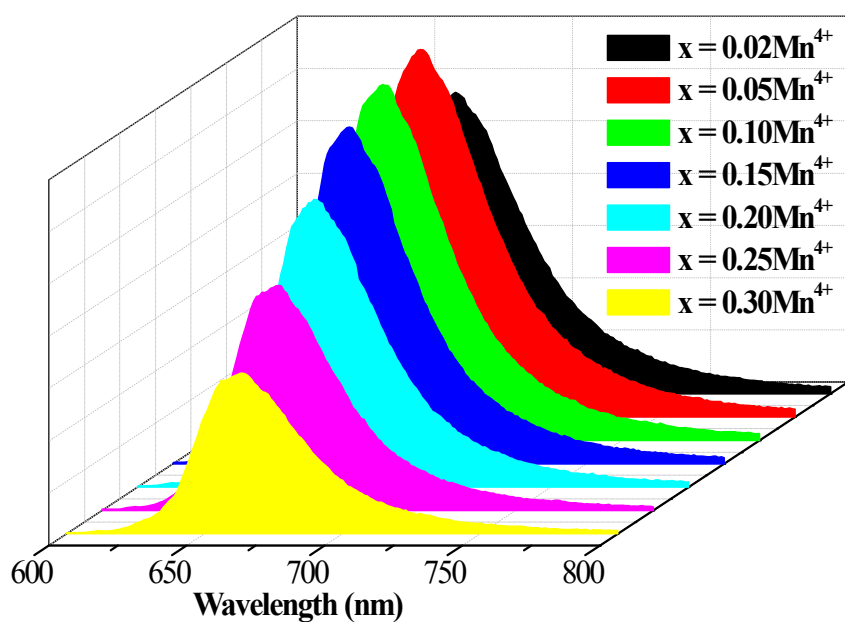


Fig.S2 PL spectra of SAM: $x\%\text{Mn}^{4+}$, $x\%\text{Li}^+$ samples with various x concentration under 450 nm excitation.

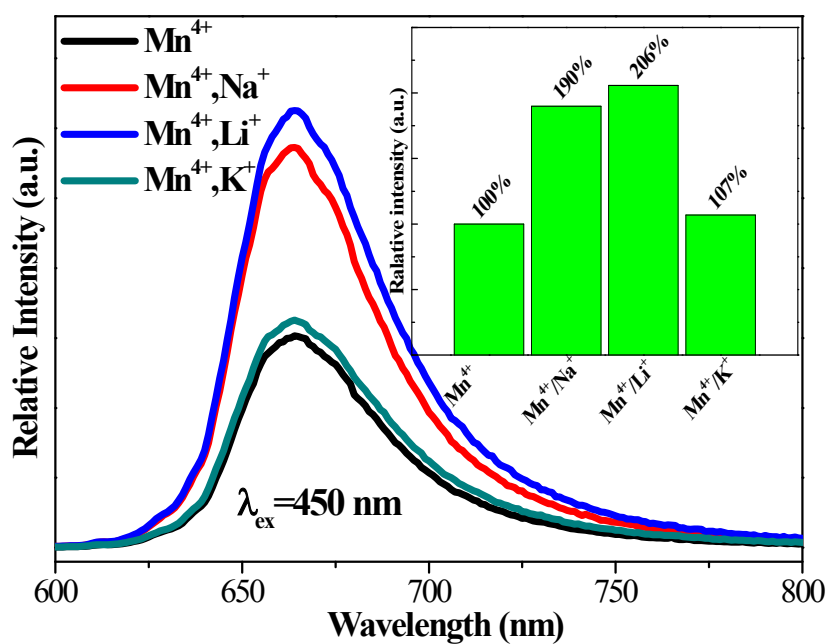


Fig. S3 PL spectra of SAM:0.05%Mn⁴⁺ and SAM:0.05%Mn⁴⁺, R⁺ (R⁺ = Li⁺, Na⁺, K⁺). Inset: Relative intensities of SAM:0.05%Mn⁴⁺ and SAM:0.05%Mn⁴⁺, R⁺ (R⁺ = Li⁺, Na⁺, K⁺).

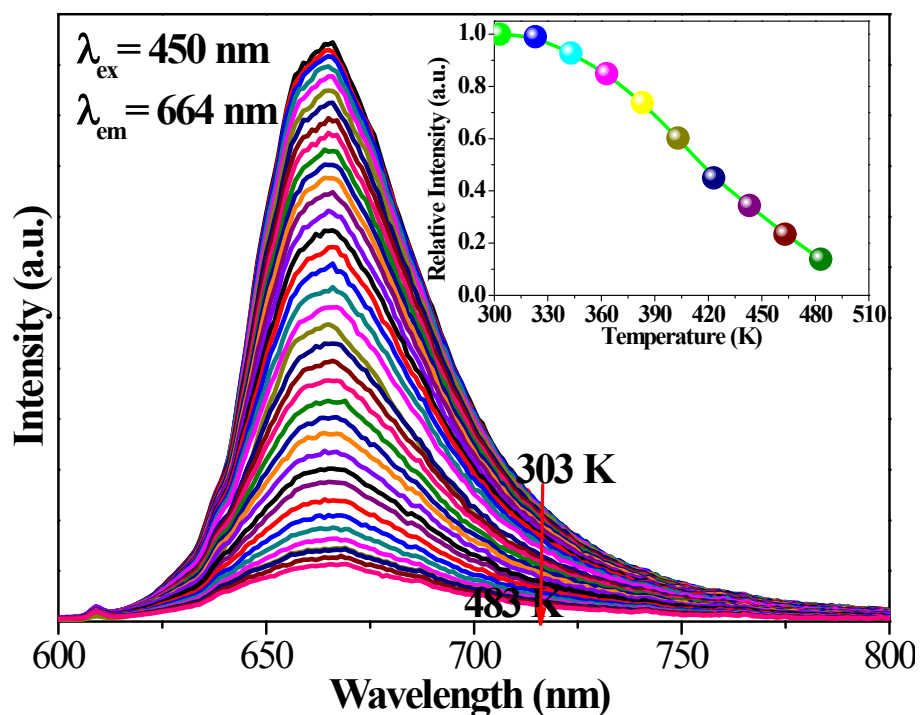


Fig.S4 Temperature-dependent emission spectra of SAM:Mn⁴⁺, Li⁺. Inset is the corresponding integrated emission intensity of SAM:Mn⁴⁺, Li⁺ as a function of temperature.

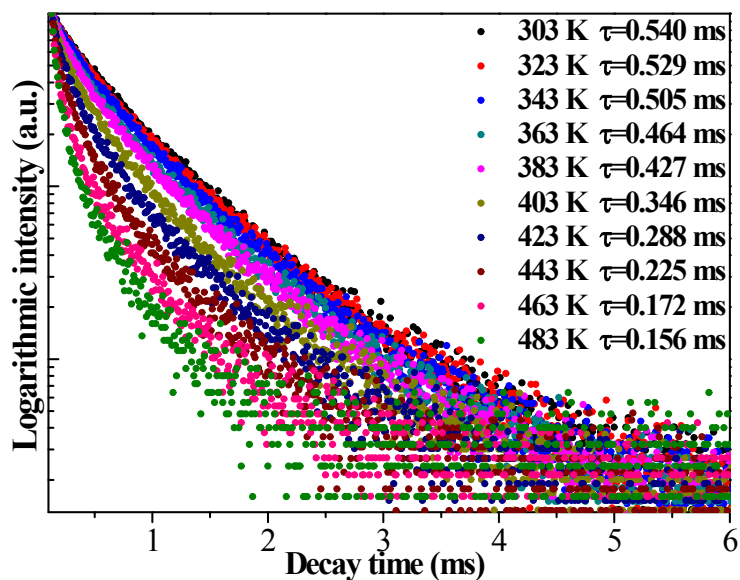


Fig.S5 Luminescence decay curves of SAM:Mn⁴⁺, Li⁺ as a function of temperature.