Supporting information

Mn$^{4+}$,Li$^+$ co-doped SrMgAl$_{10}$O$_{17}$ phosphor-in-glass: Application in high-power warm white LEDs

Jiasong Zhong, Wei Xu, Qingli Chen, Shuo Yuan, Zhengguo Ji, Daqin Chen$^*$

College of Materials and Environmental Engineering, Hangzhou Dianzi University, Hangzhou 310018, China

Fig. S1 Two-dimensional (2D) fluorescence topographical maps of as-prepared SAM:0.05%Mn$^{4+}$, 0.05%Li$^+$ sample.
**Fig. S2** PL spectra of SAM: x%Mn$^{4+}$, x%Li$^+$ samples with various x concentration under 450 nm excitation.

**Fig. S3** PL spectra of SAM:0.05%Mn$^{4+}$ and SAM:0.05%Mn$^{4+}$, R$^+$ (R$^+$ = Li$^+$, Na$^+$, K$^+$). Inset: Relative intensities of SAM:0.05%Mn$^{4+}$ and SAM:0.05%Mn$^{4+}$, R$^+$ (R$^+$ = Li$^+$, Na$^+$, K$^+$).
Fig. S4 Temperature-dependent emission spectra of SAM:Mn$^{4+}$, Li$^+$. Inset is the corresponding integrated emission intensity of SAM:Mn$^{4+}$, Li$^+$ as a function of temperature.

Fig. S5 Luminescence decay curves of SAM:Mn$^{4+}$, Li$^+$ as a function of temperature.