Supporting information

Synthesis and photoluminescence of Mn$^{4+}$ activated ternary-alkaline fluoride $K_2NaGaF_6$ red phosphor for warm-white LED application

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Fig. S1. (a), (b) XRD patterns with different doping concentration and aging time of K$_2$NaGaF$_6$:Mn$^{4+}$, respectively.
Fig. S2. SEM images of K$_2$NaGaF$_6$:$\text{Mn}^{4+}$ phosphors prepared with different aging time:

(a) 0 h, (b) 0.5 h, (c) 1 h, (d) 3 h, (e) 4 h, (f) 5 h.
Fig. S3. CIE chromaticity coordinates of K₂NaGaF₆·Mn⁴⁺ from 25 mA to 350 mA.