

Structure-Photoluminescence Relation of Green-Red
emissive $\text{Zn}_2\text{SiO}_4:\text{Mn}^{2+}$ phosphor for White-Light-
Emitting Diode

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Green-red emitting $\text{Zn}_2\text{SiO}_4:\text{Mn}^{2+}$ phosphor were synthesized at higher sintering temperature and with heavy doping concentrations than a conventional green-emission $\text{Zn}_2\text{SiO}_4:\text{Mn}^{2+}$ phosphor. The green-red phosphor shows gamma-phase structure and strong photoluminescence intensity under excitation with near-UV light and blue light. The structure, luminescence, and thermal stability of the phosphor are characterized. This phosphor has a potential use for color conversion in white-light-emitting diode.