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Supporting Information

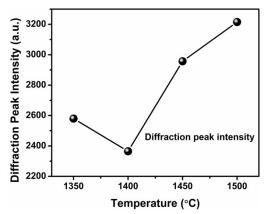


Fig. S1 Diffraction peak (at ~32.8°.) intensities for CSSG:3%Cr³⁺ calcined at 1350 -1500 °C.

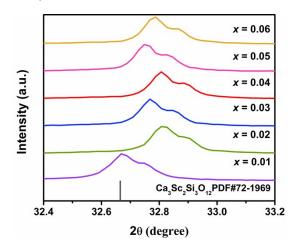


Fig. S2 Magnified XRD peaks for CSSG:xCr³⁺ with different *x* values.

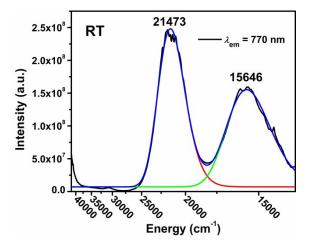


Fig. S3 PLE spectrum (black line) of ${}^{4}T_{1}({}^{4}F)$ and ${}^{4}T_{2}({}^{4}F)$ bands at room temperature fitted by a Gaussian function. Red line and green line are the Gaussian band for ${}^{4}T_{1}({}^{4}F)$ and ${}^{4}T_{2}({}^{4}F)$, respectively. Blue line is total fitted spectrum.

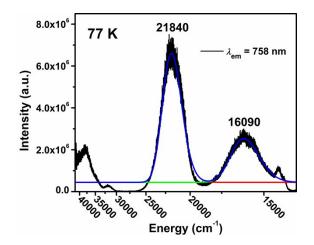


Fig. S4 PLE spectrum (black line) of ${}^{4}T_{1}({}^{4}F)$ and ${}^{4}T_{2}({}^{4}F)$ bands at 77 K fitted by a Gaussian function. Red line and green line are the Gaussian band for ${}^{4}T_{1}({}^{4}F)$ and ${}^{4}T_{2}({}^{4}F)$, respectively. Blue line is total fitted spectrum.

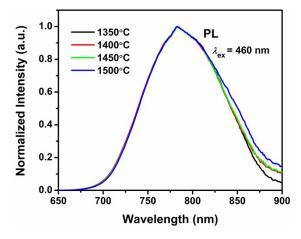


Fig. S5 Normalized PL spectra of CSSG:3%Cr³⁺ calcined at 1350 -1500 °C.

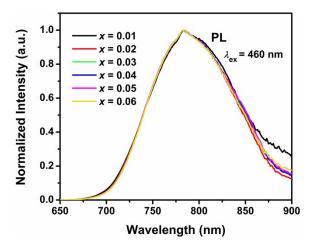


Fig. S6 Normalized PL spectra of CSSG:xCr³⁺ (x = 0.01 - 0.06) sintering at 1500 °C.