Supporting Information

Photoluminescence Properties of $ScBO_3:Cr^{3+}$ Phosphor and its Applications for Broadband Near-Infrared LEDs

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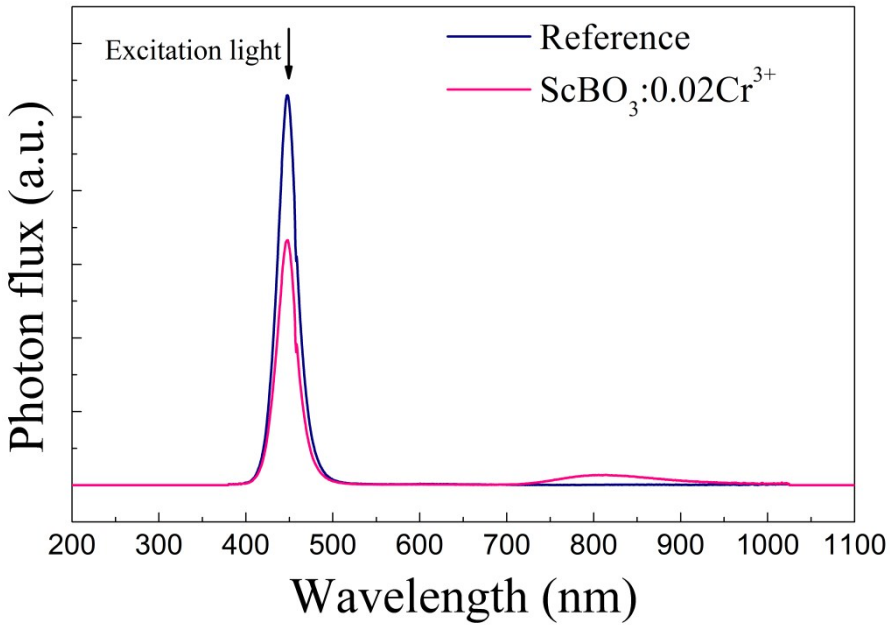

Fig. S1 The quantitative excitation profiles and emission spectra of the $ScBO_3$:0.02Cr^{3+} phosphor and the reference sample under ~450 nm excitation for quantum yield measurements.

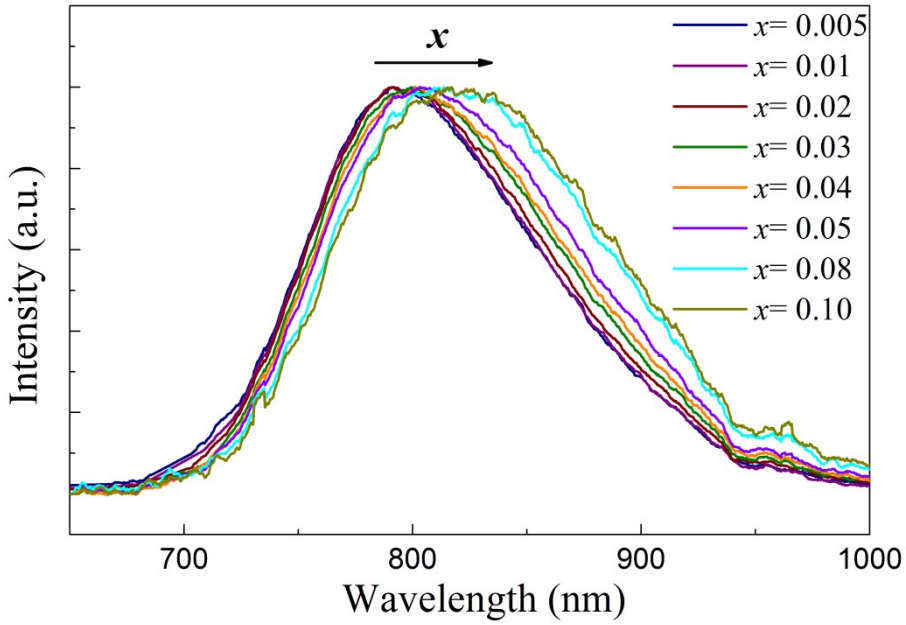

Fig. S2 Normalized emission spectra of $ScBO_3$:xCr^{3+} phosphors (x=0.005–0.1) upon excitation at ~450 nm.

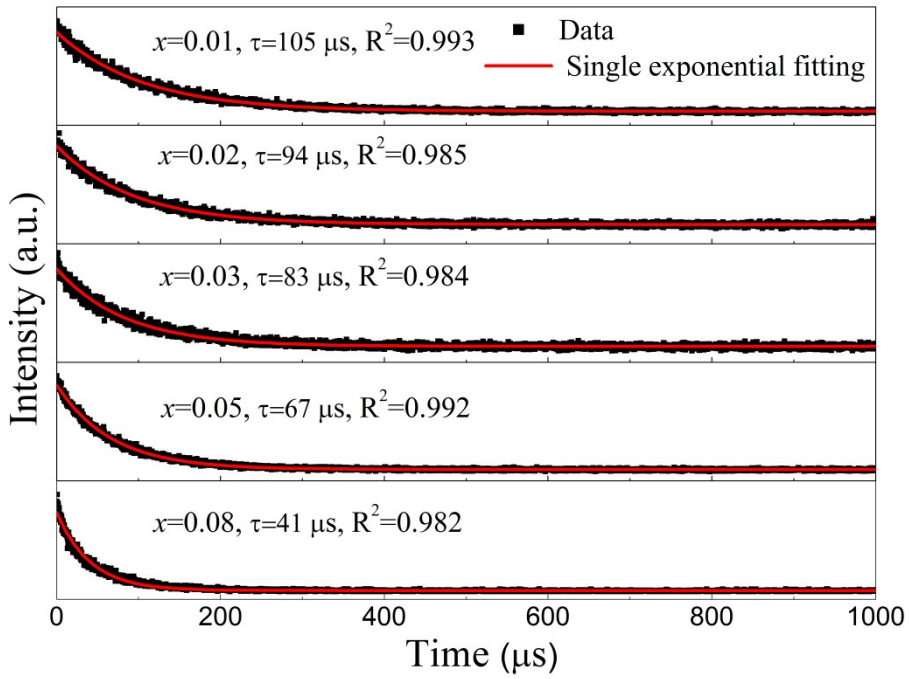

Fig. S3 Luminescent decay curves of $ScBO_3$:$x$$Cr^{3+}$ phosphors with various Cr^{3+} concentrations (λ_{ex} = 450 nm). All the decay curves can be well fitted by a single exponential function:

$$I = I_0 \exp\left(\frac{-t}{\tau}\right)$$