

Figure S1. (a) Results of quantitative refinements of SZT obtained at 1100 - 1400 °C temperature range. Corresponding refinement plots at: (b) 1100 °C, (c) 1200 °C, (c) 1300 °C and (d) 1400 °C, respectively.

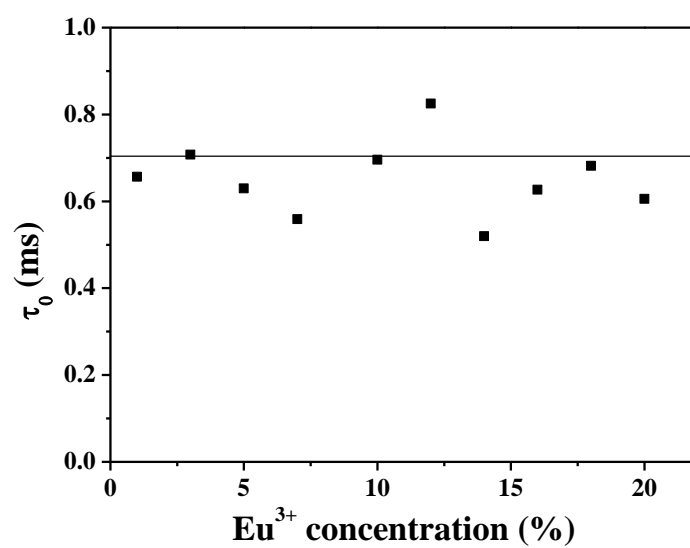
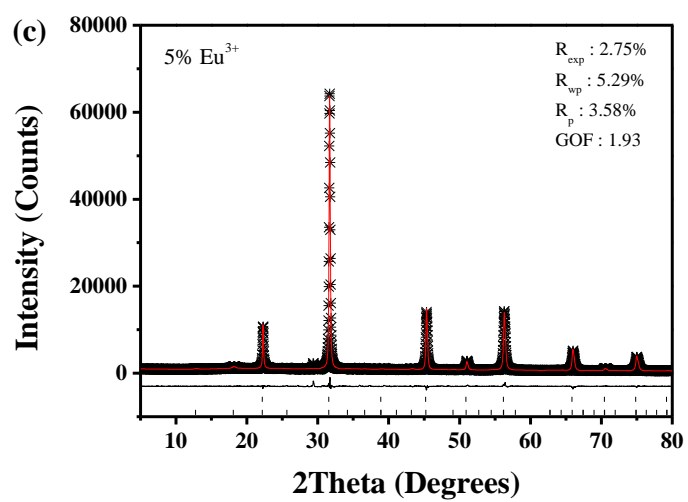
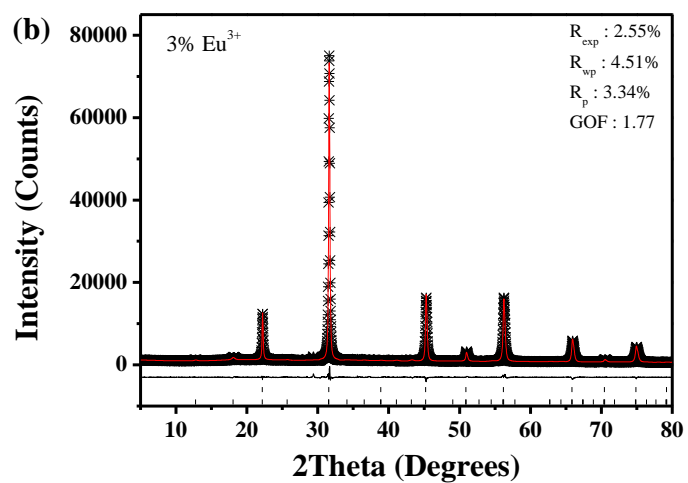
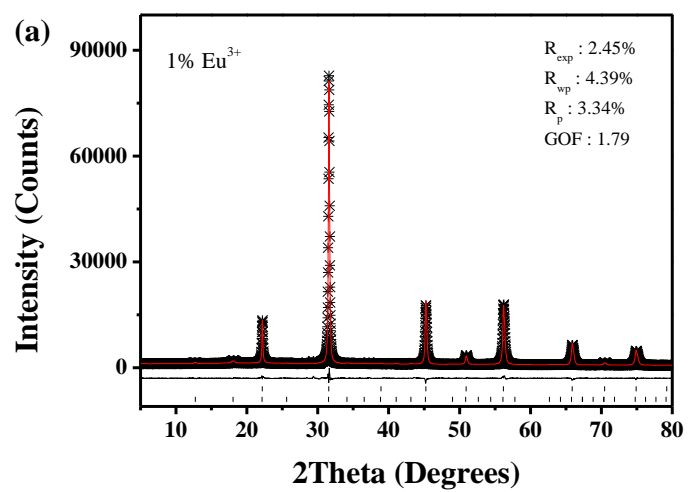


Figure S2. Lifetimes of ${}^5\text{D}_0 \rightarrow {}^7\text{F}_2$ emission under 464 nm excitation of SZT: $x\text{Eu}^{3+}$ ($1\% \leq x \leq 20\%$).



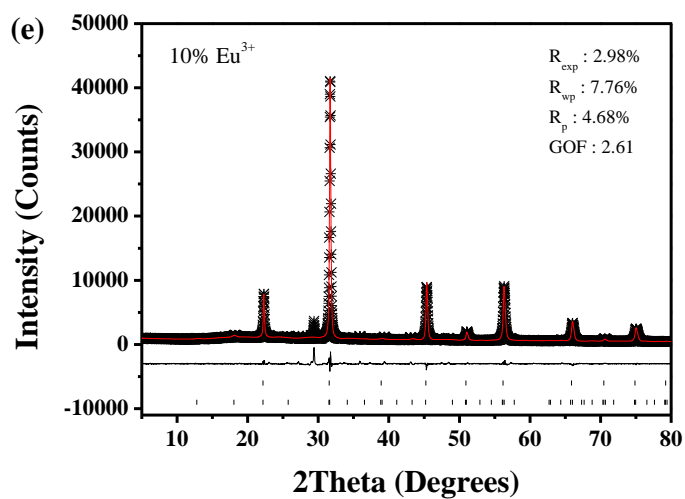
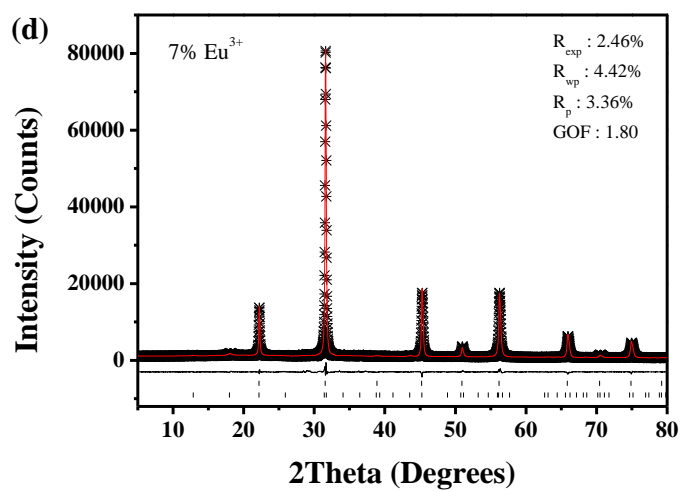


Figure S3. Quantitative Rietveld refinements of SZT: $x\text{Eu}^{3+}$ (a) $x = 1\%$, (b) $x = 3\%$, (c) $x = 5\%$, (d) $x = 7\%$ and (e) $x = 10\%$.