Supporting Information

$Ca_3La_2Te_2O_{12}:Mn^{4+},Nd^{3+},Yb^{3+}$: An efficient thermal-stable UV/visible-far red/NIR broadband spectral converter for c-Si solar cells and plant-growth LEDs

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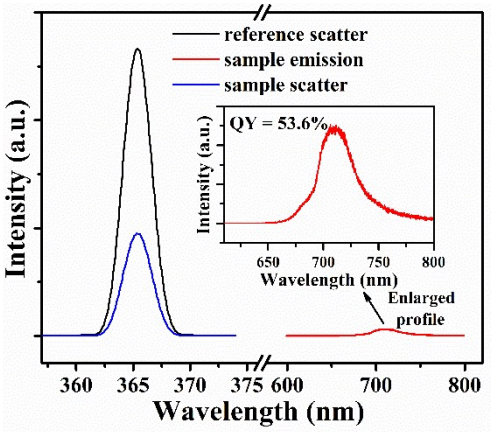

Fig. S1 Quantitative excitation and emission spectra of CLTO:0.004Mn^{4+} and reference sample with the assistance of an integrated sphere.

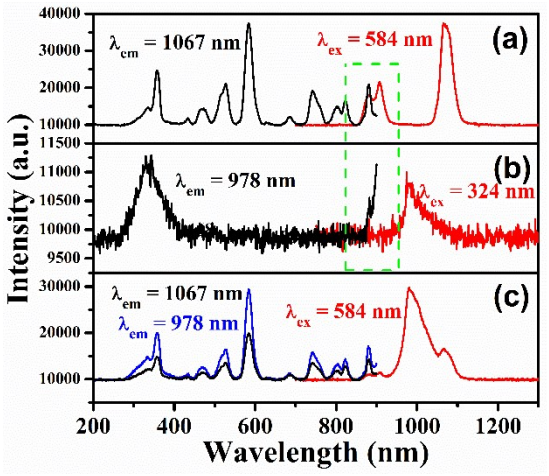

Fig. S2 PL excitation and emission spectra of CLTO:0.04Nd^{3+} (a), CLTO:0.20Yb^{3+} (b) and CLTO:0.04Nd^{3+},0.20Yb^{3+} (c).

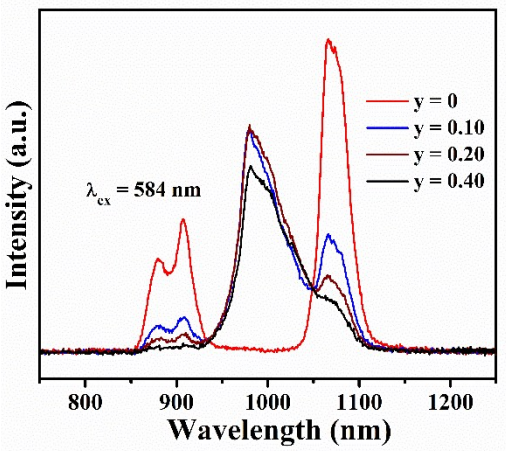

Fig. S3 Variation of emission spectra for CLTO:0.04Nd^{3+},yYb^{3+} samples excited at 584 nm.

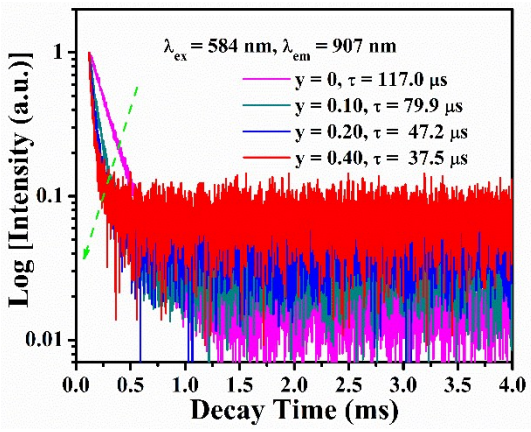

Fig. S4 Variation of decay curves (λ_{ex} = 584 nm, λ_{em} = 907 nm) for CLTO:0.04Nd^{3+},yYb^{3+} samples (y = 0-0.40).

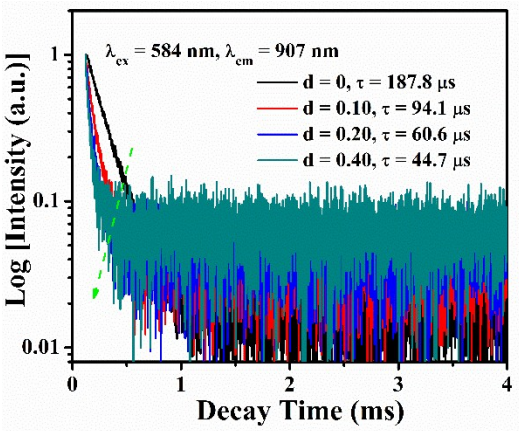

Fig. S5 Variation of decay curves (λ_{ex} = 584 nm, λ_{em} = 907 nm) for CLTO:0.004Mn^{4+},0.04Nd^{3+},dYb^{3+} (d = 0-0.40) samples.