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Figure S1 Photoluminescence decay curves of  $Ce^{3+}$  in  $CCPO:xEu^{2+}$  and  $CCPO:yMn^{2+}$  phosphors.



Figure S2 Intensity variation of the two sub-peaks of  $Eu^{2+}$  in CCPO:x $Eu^{2+}$  phosphors.



Figure S3 Intensity variation of the two sub-peaks of  $Mn^{2\scriptscriptstyle +}$  in CCPO:yMn^{2\scriptscriptstyle +} phosphors.