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Tunable luminescence and energy transfer properties of a novel $Na_4Ca_4Si_6O_{18}:Ce^{3+}, Mn^{2+}$ phosphor

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Table S1. Selected fractional atomic coordinates and Main Parameters of Processing and Refinement of the NCSO:0.04Ce^{3+} sample.

Atoms	Site	*x*	*y*	*z*	Occ.	U_{iso}(Å^2)
Ca1	6c	0.309200	-0.016800	0.589900	0.3230	0.03004
Ca2	3a	0.305900	0.000000	0.333300	1.0000	0.03004
Na1	6c	0.309200	-0.016800	0.589900	0.4280	0.03004
Na2	6c	0.279000	-0.031000	0.620000	1.0000	0.03004
Si1	6c	0.198100	0.152400	0.777700	1.0000	0.03004
Si2	6c	0.499300	0.322600	0.895700	1.0000	0.03004
O1	3b	0.163500	0.000000	0.833300	1.0000	0.03004
O2	6c	0.344700	0.281800	0.837100	1.0000	0.03004
a = b = 10.472788 Å, c = 13.153687 Å, V=1257.84 Å^3; Z = 3; space group, P 3_121; weighted-profile agreement index R_{wp} = 11.01%, profile residual agreement index 7.54% and χ^2 =6.35.						

Figure S1

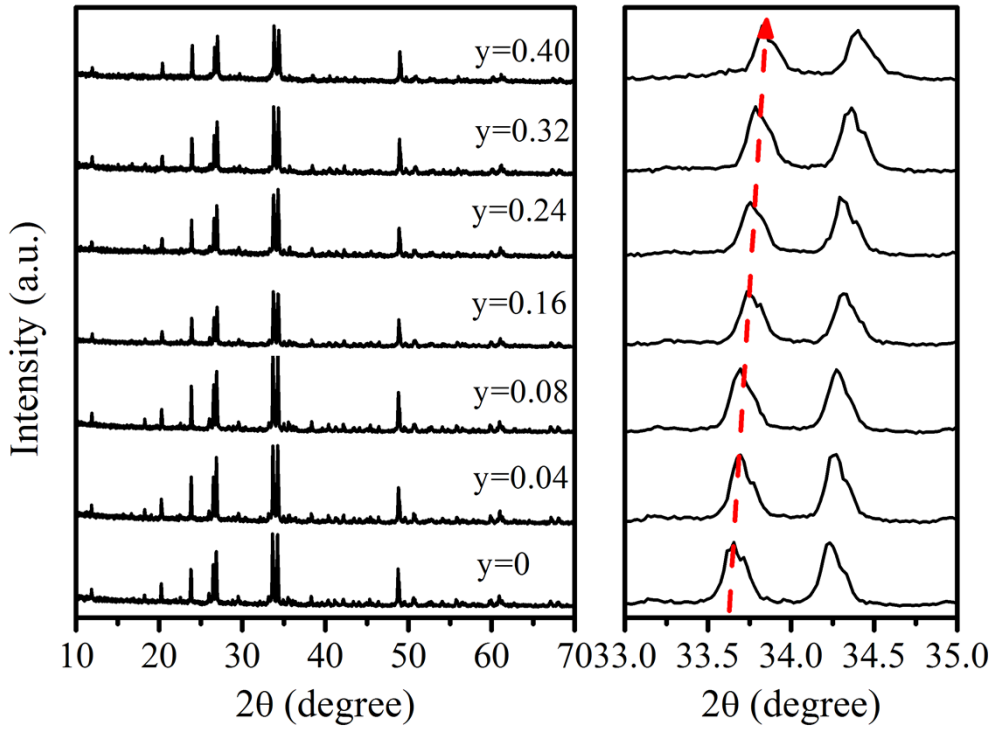

Figure S1. XRD patterns of the NCSO: $0.04Ce^{3+}$, yMn^{2+} powders.