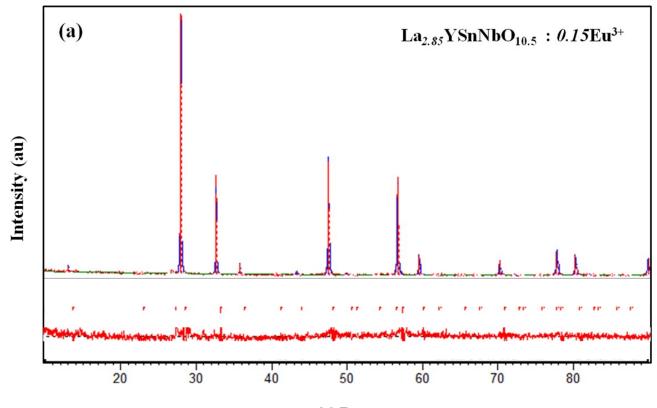
Supporting Information (S1) for

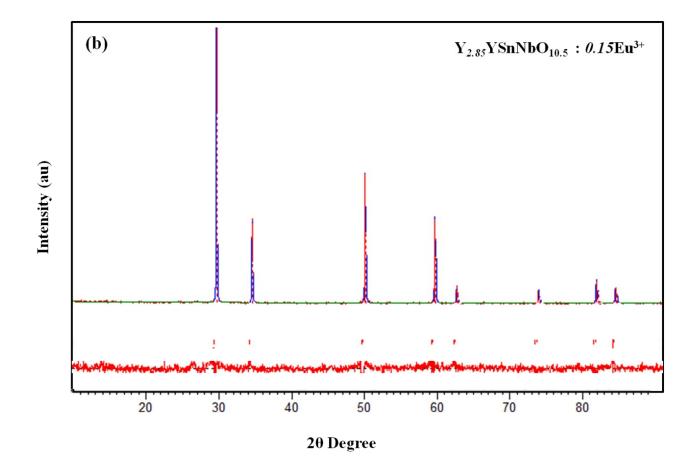
## Exploitation of Eu<sup>3+</sup> Red Luminescence through Order - Disorder Structural Transition in Lanthanide Stannate Pyrochlores for warm White LED Applications

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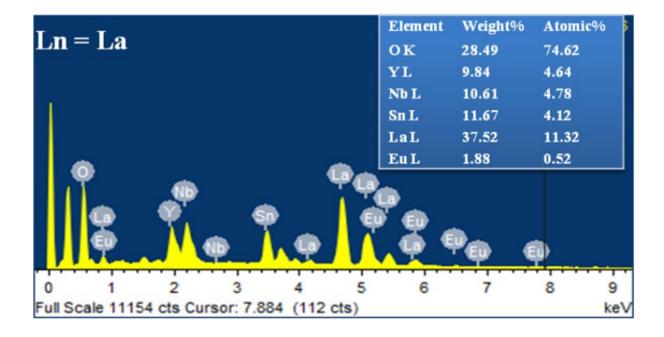
Materials Science and Technology Division, CSIR-National Institute for Interdisciplinary Science and Technology (NIIST), Trivandrum – 695 019, India

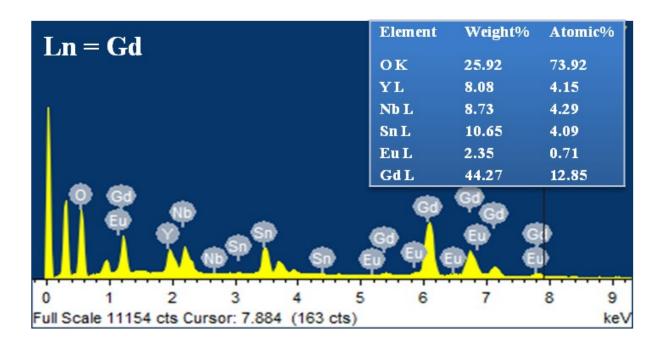


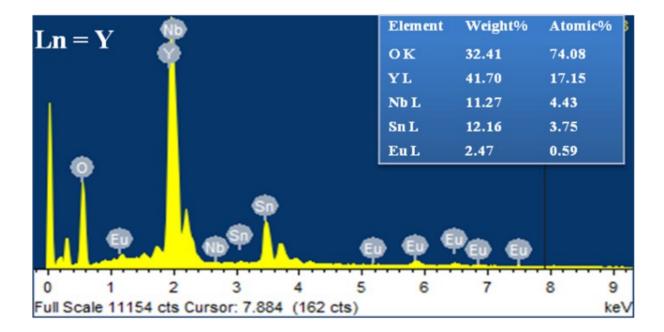
20 Degree

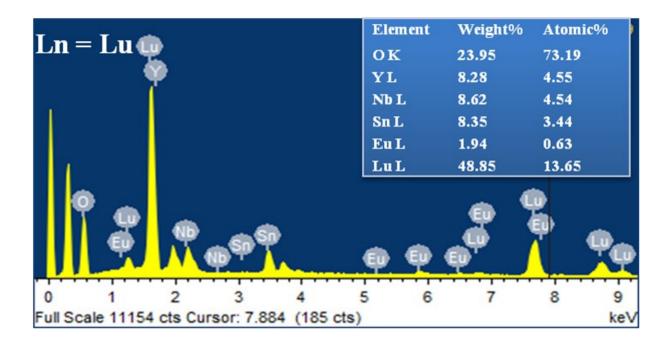


**Fig. S1** Observed, calculated and difference XRD patterns of (a) pyrochlore structured  $La_{2.85}YSnNbO_{10.5}$ : 0.15Eu<sup>3+</sup> and (b) fluorite structured  $Y_{3.85}YSnNbO_{10.5}$ : 0.15Eu<sup>3+</sup>. Rietveld analysis was performed using commercial X'Pert Highscore Plus software.

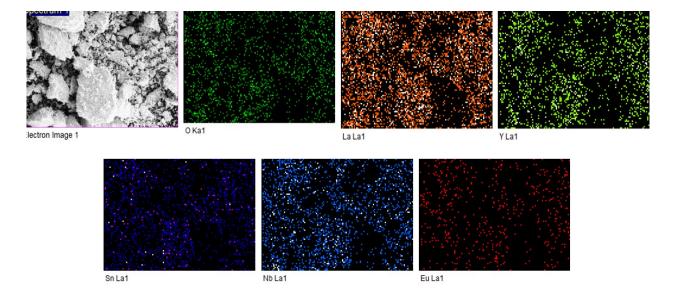








**Fig. S2** EDS spectra of  $Ln_{2.85}$ YSnNbO<sub>10.5</sub>:0.15Eu<sup>3+</sup> (Ln = La, Gd, Y and Lu) phosphors and EDAX microanalysis confirms the chemical homogeneity of the powders prepared by solid state route.



**Fig. S3** Elemental mapping of typical  $La_{2.90}$ YSnNbO<sub>10.5</sub>:0.10Eu<sup>3+</sup> red phosphor which confirms the uniform distribution of all the elements in the lattice.