

Electronic Supplementary Information (ESI)

Thermally stable and color-tunable bi-activated (Trivalent Dysprosium/ Europium) alkaline earth metasilicate phosphor for luminescent devices

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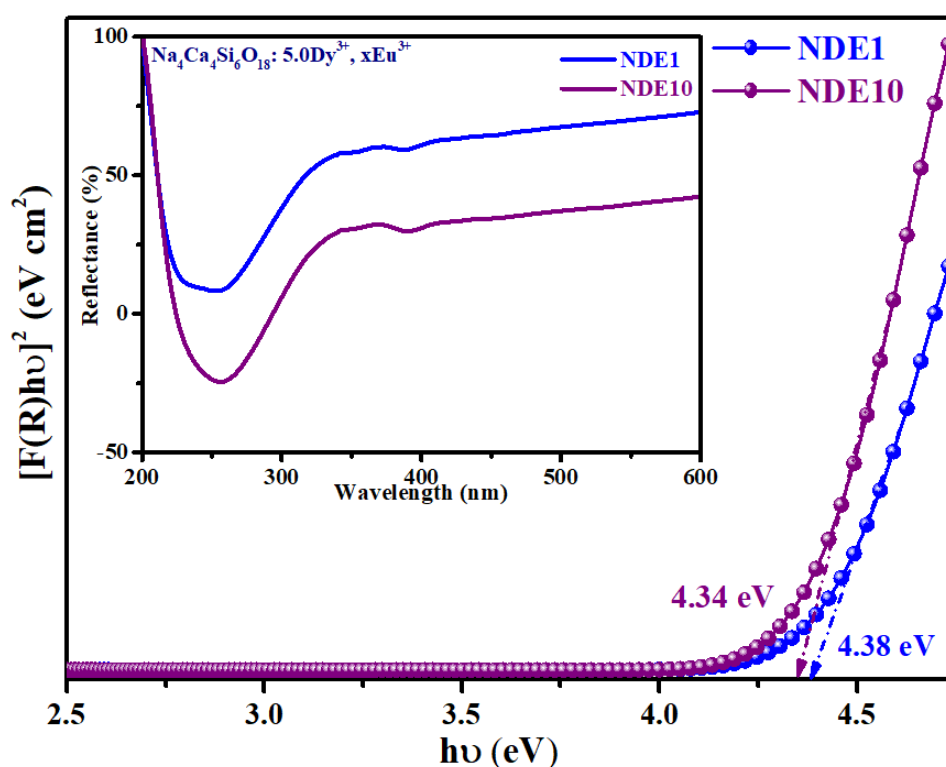


Figure S1. Band gap energy determination using K-M function for 5.0 Dy³⁺/xEu³⁺ (x=1.0 and 10.0 mol%) co-doped Na₄Ca₄Si₆O₁₈ phosphors. Inset shows the diffuse reflectance spectra for the same samples.

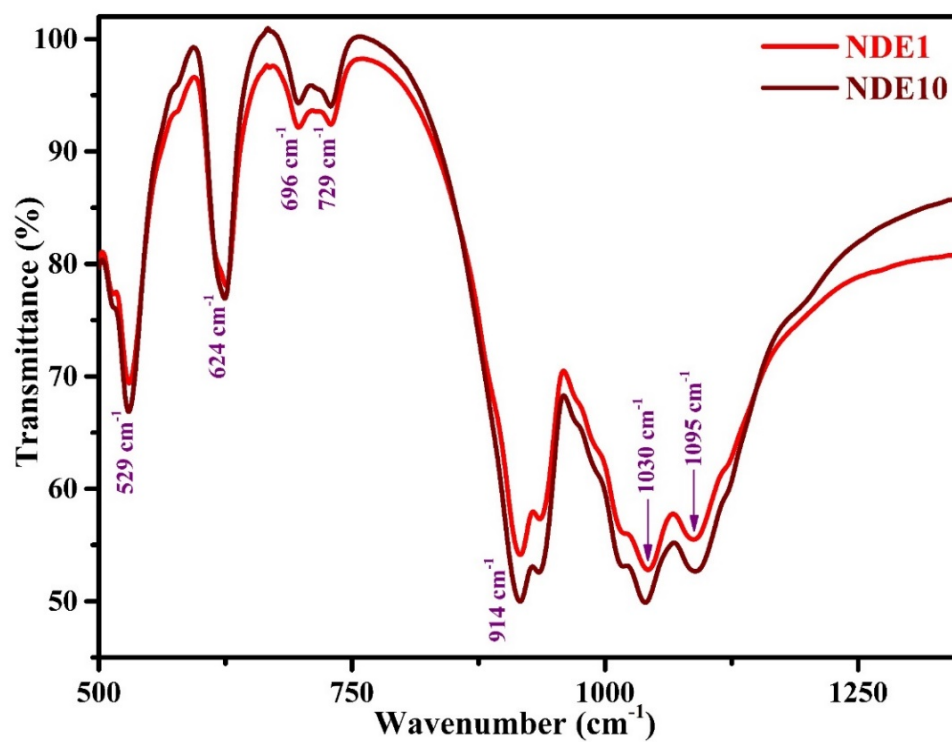


Figure S2. Fourier transform infrared spectroscopy of NCMS: 5.0 Dy^{3+} /1.0 Eu^{3+} (NDE1) and NCMS: 5.0 Dy^{3+} /10.0 Eu^{3+} (NDE10) phosphors.

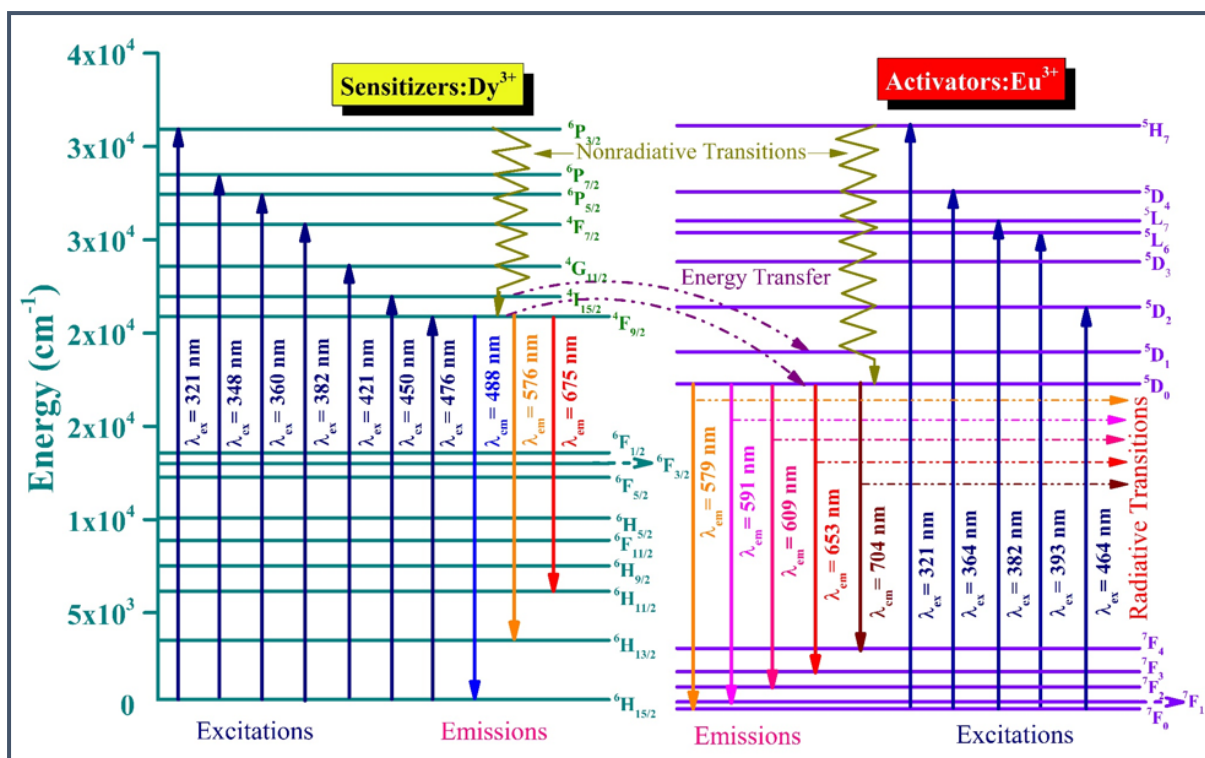


Figure S3. Partial energy level diagram illustrating energy transfer in Dy^{3+} activated and $\text{Dy}^{3+}/\text{Eu}^{3+}$ co-activated $\text{Na}_4\text{Ca}_4\text{Si}_6\text{O}_{18}$ phosphors.