

Figure S1: XPS spectra of Sr 3d level in undoped and Europium doped SrMoO<sub>4</sub>.

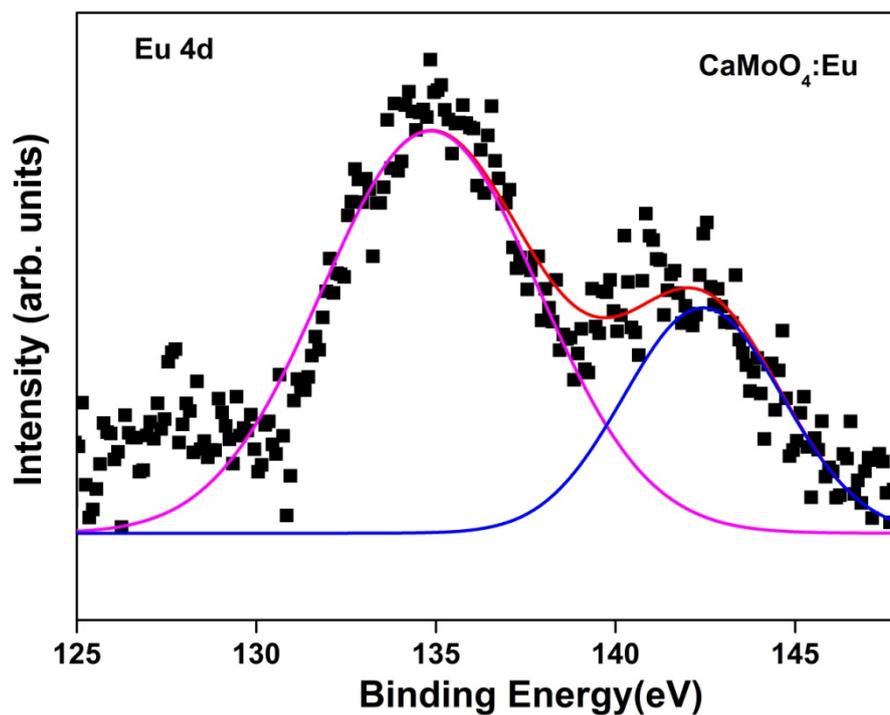


Figure S2: XPS spectra of Eu 4d level in Europium doped CaMoO<sub>4</sub>.

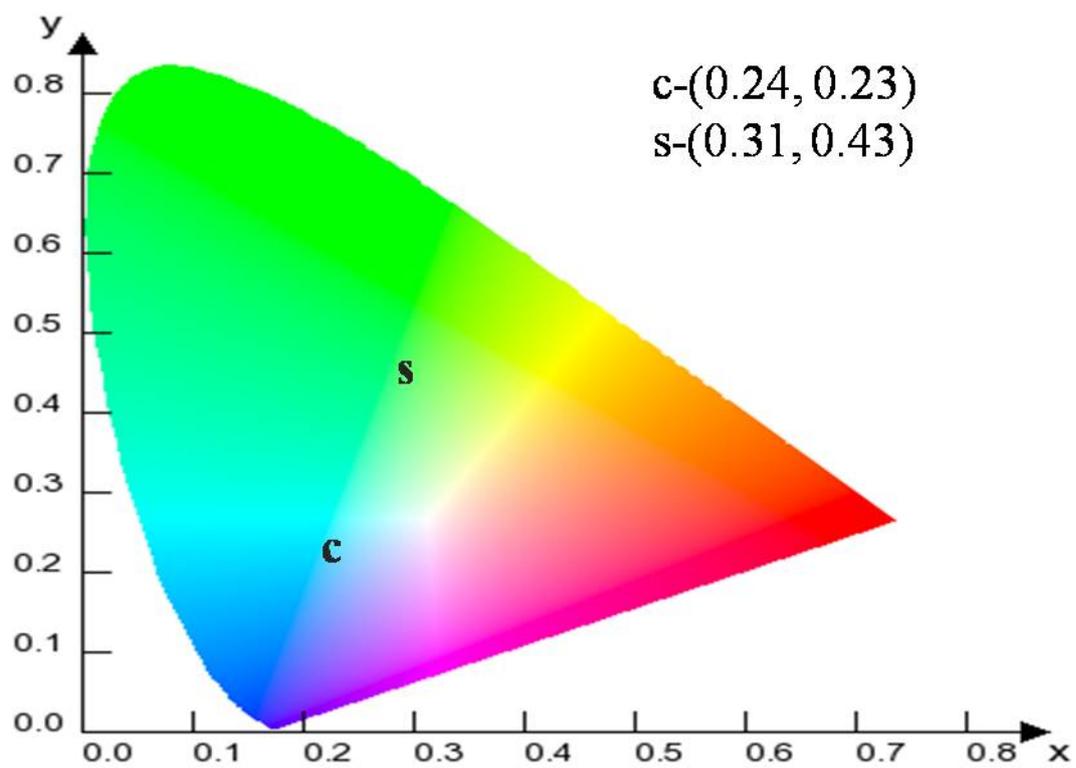


Figure S3: CIE index diagram for CMO and SMO at excitation wavelength of 250 nm.

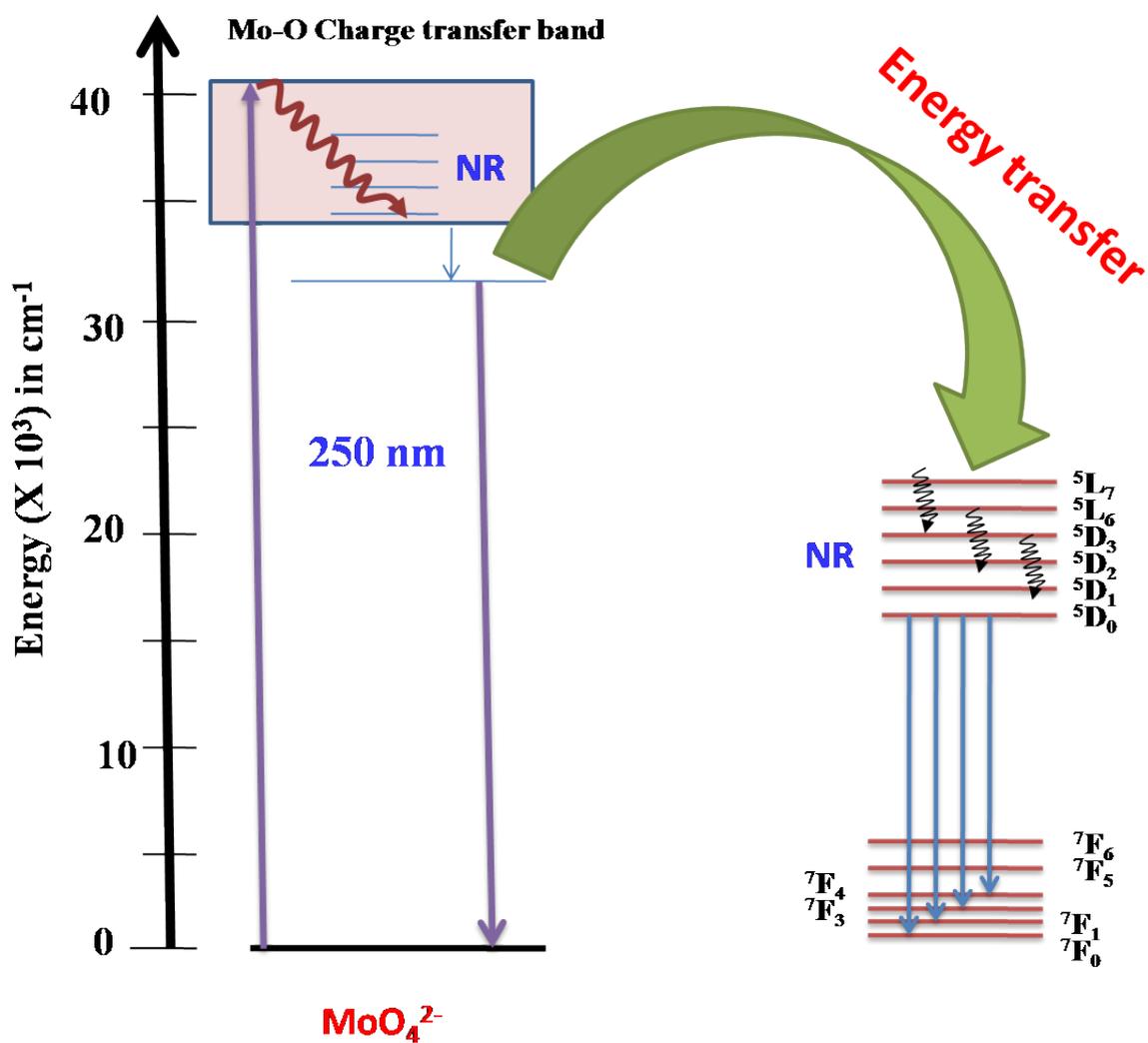


Figure S4: Energy level scheme for the  $\text{Eu}^{3+}$  and  $\text{MoO}_4^{2-}$  group and the energy transfer mechanism from  $\text{MoO}_4^{2-}$  to  $\text{Eu}^{3+}$ .

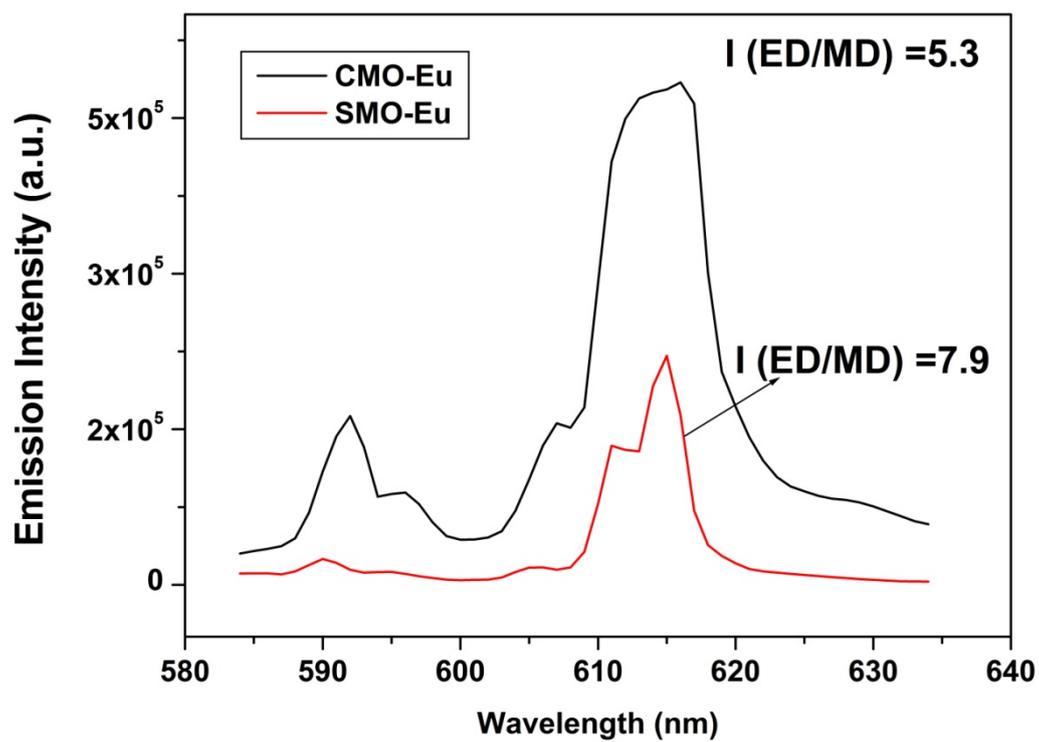


Figure S5: Intensity plot for ED and MD transition in CMO-Eu and SMO-Eu under excitation of 274 nm.