

Supplementary information

White Light from Dispersible Lanthanides-Doped LaVO_4 Core-Shell Nanoparticles

Saurabh Singh[†], Anurodh Tripathi[†], Chandresh Kumar Rastogi^{\$}, and Sri Sivakumar^{†\$‡*}

[†]Department of Chemical Engineering, ^{\$}Materials Science Programme, [‡]Centre for Environmental Science and Engineering, Indian Institute of Technology Kanpur, Kanpur-208016

CORRESPONDING AUTHOR FOOTNOTE: srisiva@iitk.ac.in.

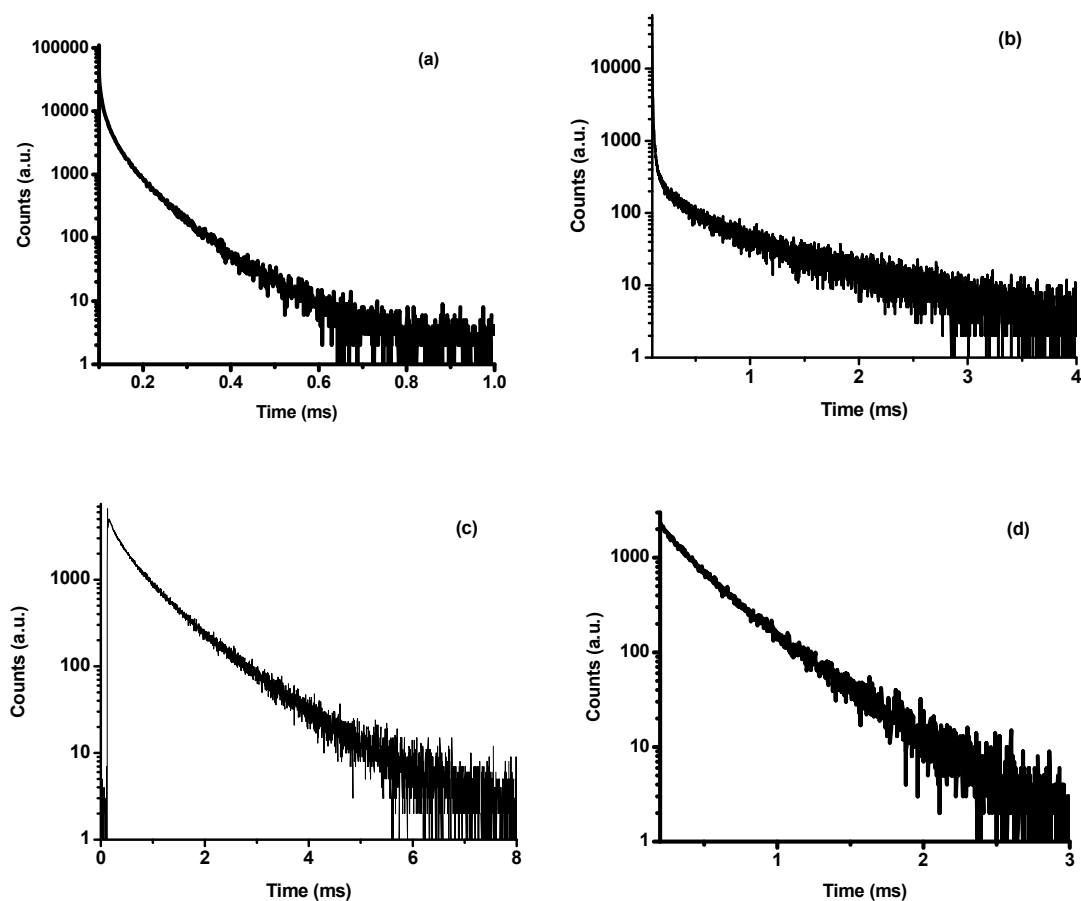


Fig. S1 Decay curves of a) LaVO₄:Tm³⁺ ($\lambda_{\text{ex}} = 280$ nm, $\lambda_{\text{em}} = 475$ nm), b) LaVO₄:Tb³⁺ ($\lambda_{\text{ex}} = 280$ nm, $\lambda_{\text{em}} = 545$ nm), c) LaVO₄:Eu³⁺ ($\lambda_{\text{ex}} = 280$ nm, $\lambda_{\text{em}} = 612$ nm), and d) LaVO₄:Dy³⁺ ($\lambda_{\text{ex}} = 280$ nm, $\lambda_{\text{em}} = 575$ nm)

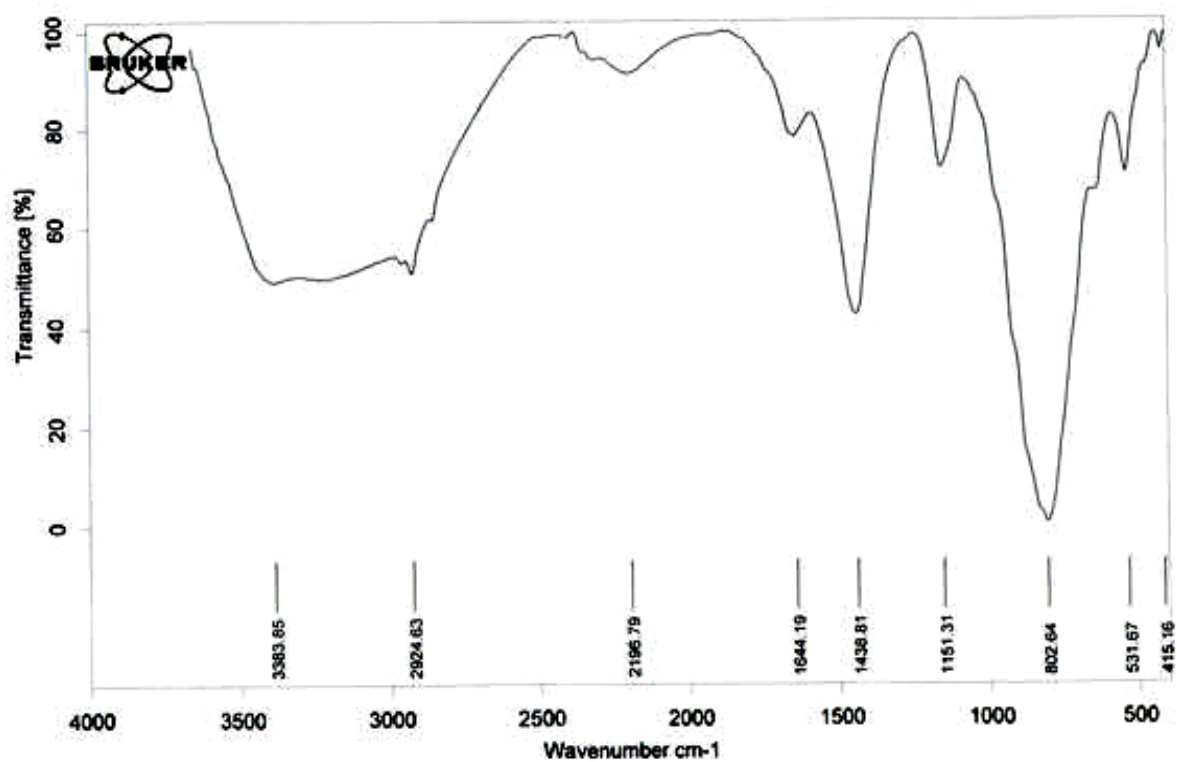


Fig. S2 FTIR spectrum of type 1 core-shell LaVO_4 nanoparticles

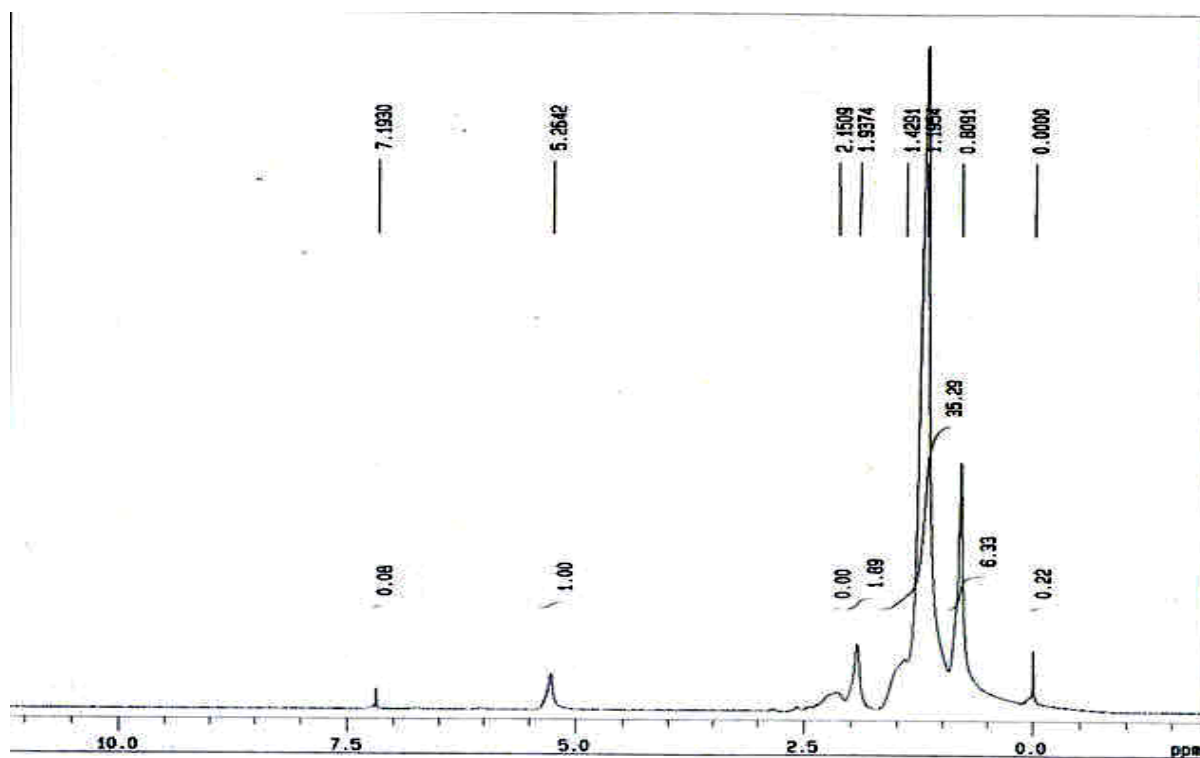


Fig. S3 ^1H NMR of spectrum of type 1 core-shell LaVO_4 nanoparticles

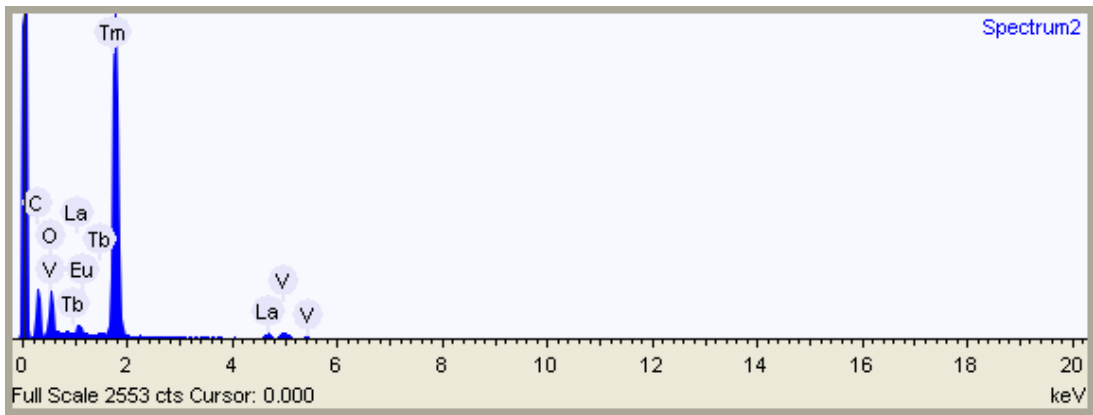


Fig. S4 Energy dispersive X-ray (EDX) spectrum type 1 core-shell LaVO₄ nanoparticles

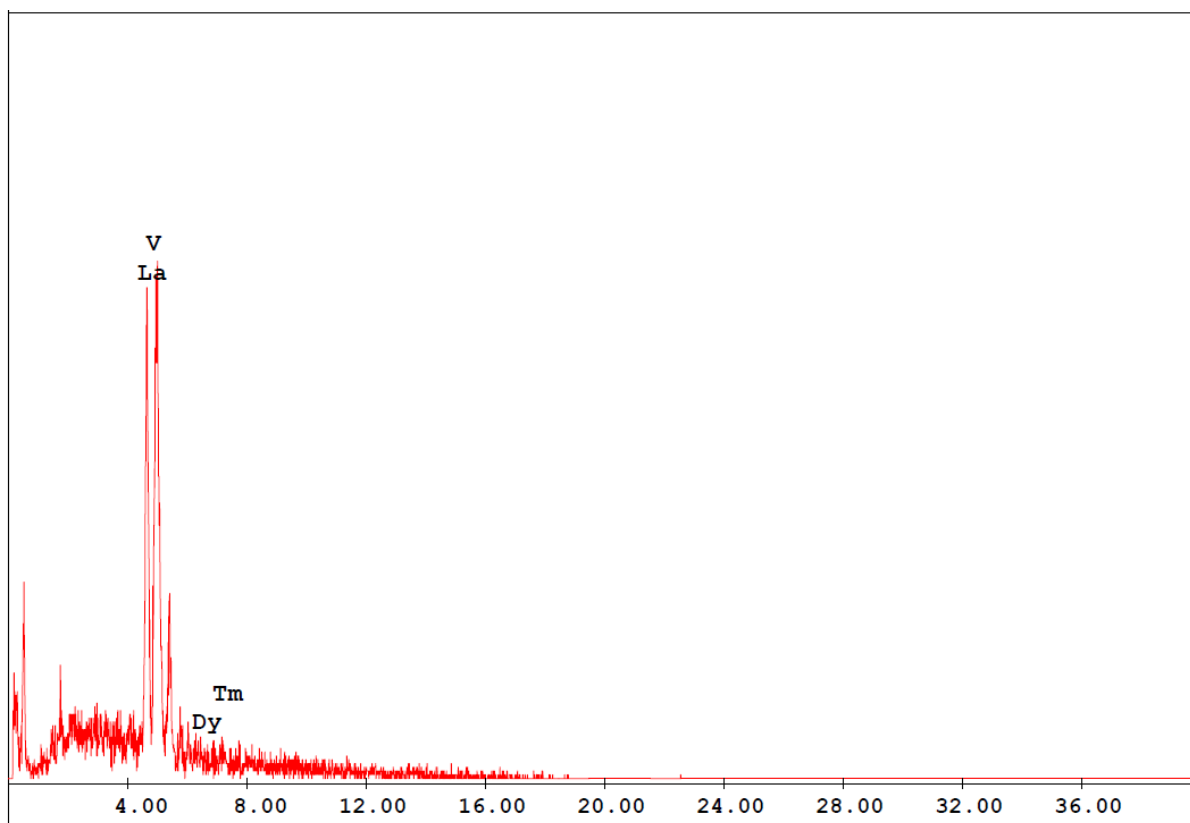


Fig. S5 Energy dispersive X-ray (EDX) spectrum type 2 core-shell LaVO_4 nanoparticles

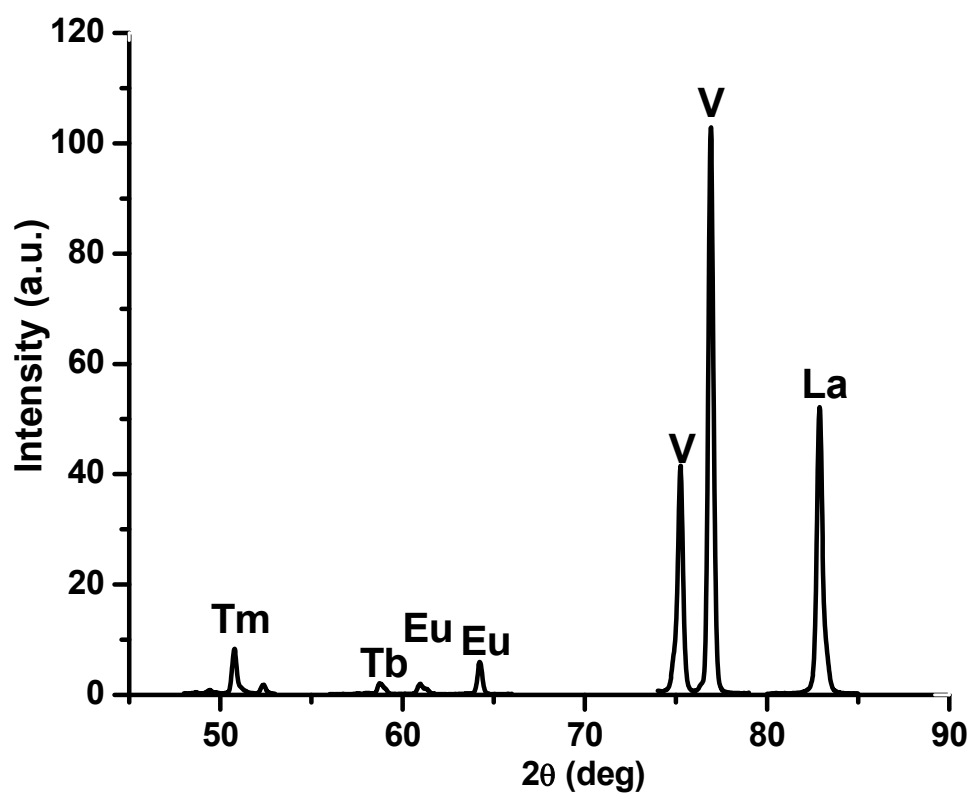


Fig. S6 XRD spectrum of type 1 core-shell LaVO_4 nanoparticles

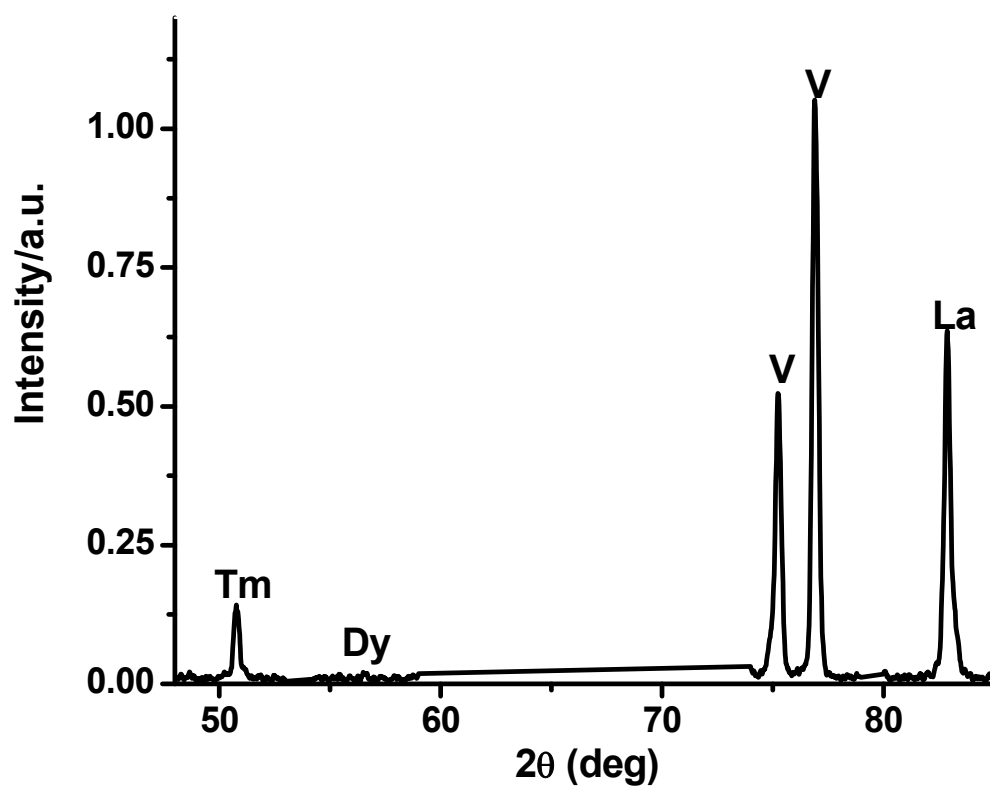


Fig. S7 XRD spectrum of type 2 core-shell LaVO_4 nanoparticles