

## Supplementary Information

### Enhancing the color purity of the green upconversion emission from Er<sup>3+</sup>/Yb<sup>3+</sup>-doped GdVO<sub>4</sub> nanocrystals *via* tuning of the sensitizer concentration

Venkataramanan Mahalingam,<sup>a</sup> Chanchal Hazra,<sup>a</sup> Rafik Naccache,<sup>b</sup> Fiorenzo Vetrone,<sup>b</sup> and John A. Capobianco<sup>\*c</sup>

<sup>a</sup>Indian Institute of Science Education and Research (IISER) Kolkata, Mohanpur Campus, Mohanpur, India, 741 252

<sup>b</sup>Institut National de la Recherche Scientifique – Énergie, Matériaux et Télécommunications, Université du Québec, 1650 Lionel-Boulet, Varennes, QC, Canada, J3X 1S2

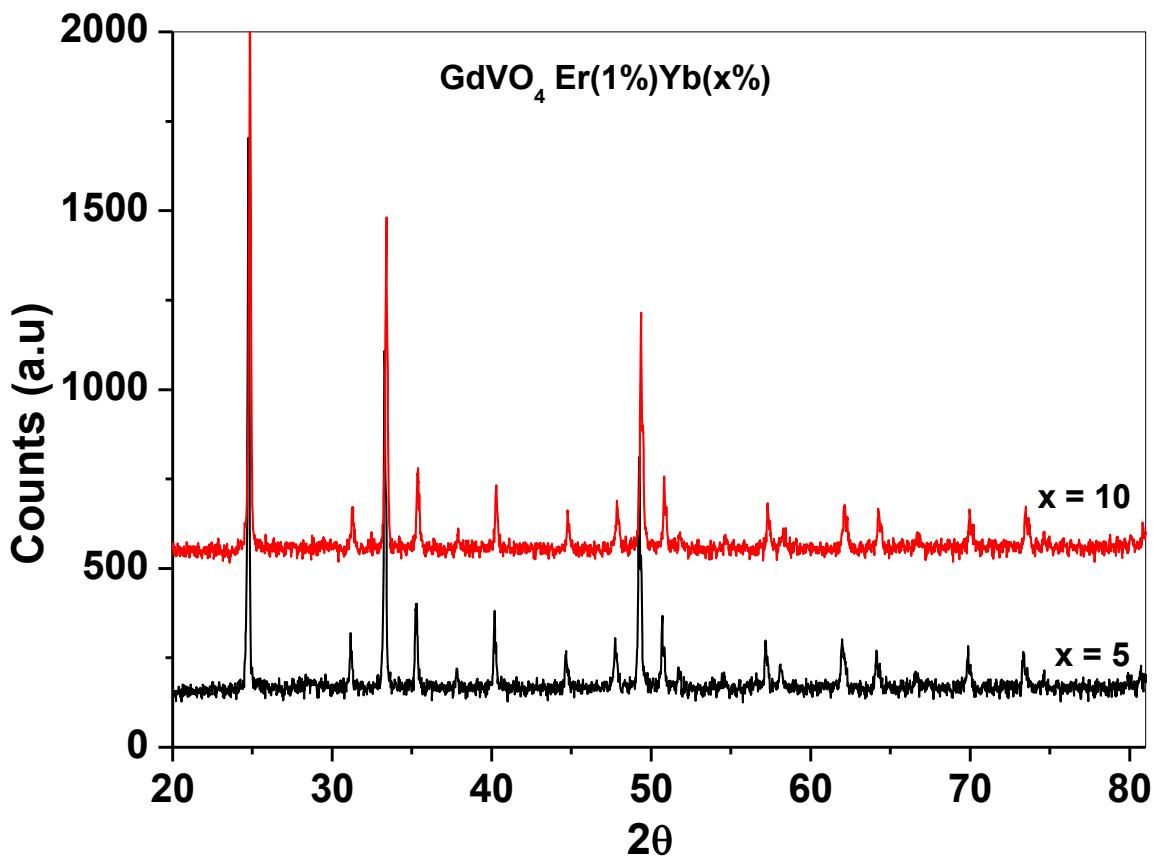
<sup>c</sup>Department of Chemistry and Biochemistry, Concordia University, 7141 Sherbrooke Street West, Montreal, QC, Canada, H4B1R6

\*Corresponding author : John A. Capobianco, E-mail: [capo@vax2.concordia.ca](mailto:capo@vax2.concordia.ca)

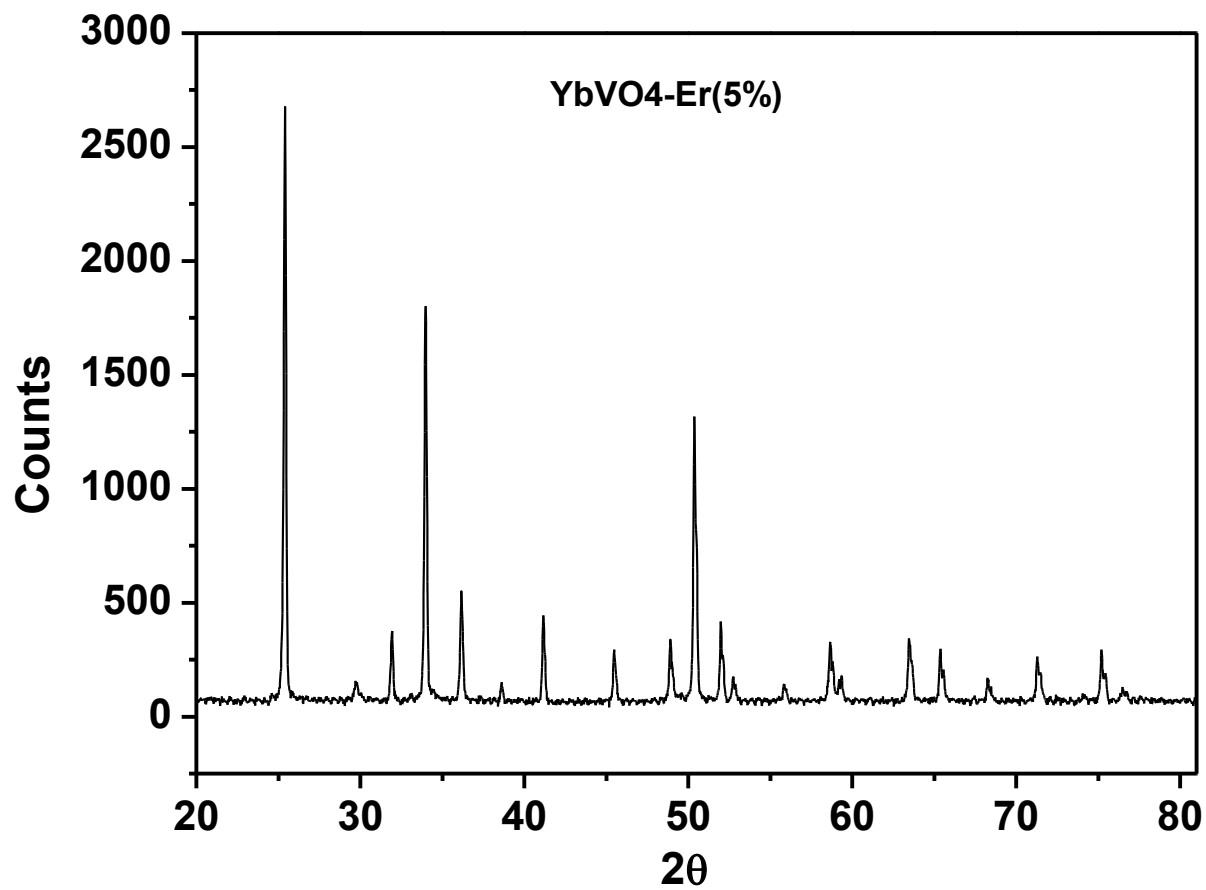
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**Figure S1.** XRD patterns of Er<sup>3+</sup>/Yb<sup>3+</sup> doped GdVO<sub>4</sub> nanocrystals prepared via Pechini type sol-gel method with different Yb<sup>3+</sup> concentration.

**Figure S2.** XRD pattern of (5%) Er<sup>3+</sup>-doped YbVO<sub>4</sub> nanocrystals prepared via Pechini type sol-gel method.



**Figure S1.** XRD patterns of  $\text{Er}^{3+}/\text{Yb}^{3+}$  doped  $\text{GdVO}_4$  nanocrystals prepared via Pechini type sol-gel method with different  $\text{Yb}^{3+}$  concentration.



**Figure S2.** XRD pattern of (5%)  $\text{Er}^{3+}$ -doped  $\text{YbVO}_4$  nanocrystals prepared via Pechini type sol-gel method.