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Correction: Controlled synthesis of lanthanide-doped $\text{Gd}_2\text{O}_2\text{S}$ nanocrystals with novel excitation-dependent multicolor emissions

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 Correction for 'Controlled synthesis of lanthanide-doped $\text{Gd}_2\text{O}_2\text{S}$ nanocrystals with novel excitation-dependent multicolor emissions' by Lei Lei, et al., *Nanoscale*, 2017, **9**, 5718–5724.

The authors wish to amend the sections of the manuscript detailed below. These corrections are due to the misleading origin of the excitation bands for Eu/Sm/Dy in lanthanide oxysulfide hosts.

The corrections are as follows:

- (1) On page 5718 in the sentence beginning "Considering that Tb^{3+} and..." the phrase " $4f \rightarrow 5d$ " should instead read as " $4f \rightarrow 5d$ or $4f \rightarrow 4f$ ".
- (2) On page 5721 in the sentence beginning "Taking the F-NYG NCs..." the phrase " $4f^n \rightarrow 4f^{n-1}5d^1$ " should instead read as " $4f \rightarrow 5d$ or charge transfer band"
- (3) On page 5721 in the sentence beginning "On replacing all Gd^{3+} ions..." the phrase "the intensity of the $4f \rightarrow 5d$ transitions for Tb^{3+} and Dy^{3+} in the PLE spectra" should instead read as "the intensity of the $4f \rightarrow 5d$ transitions for Tb^{3+} and $\text{O}^{2-} \rightarrow \text{Dy}^{3+}$ charge transfer for Dy^{3+} in the PLE spectra".
- (4) On page 5721 in the sentence beginning "However, the color variation..." the phrase " $4f \rightarrow 5d$ transitions of Tb^{3+} and Eu^{3+} " should instead read as " $4f \rightarrow 5d$ transitions of Tb^{3+} and $4f \rightarrow 4f$ transitions of Eu^{3+} ".
- (5) The labels in Fig. 4(a) and Fig. S10(b) should be corrected, as shown in the below corrected figures.¹

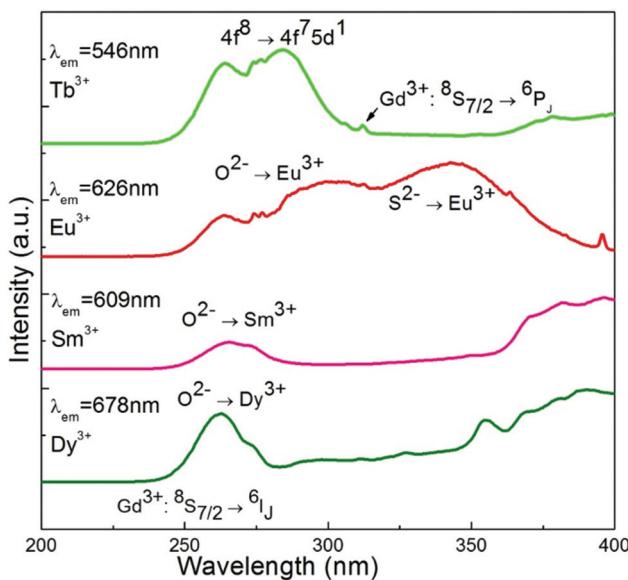


Fig. 4a PLE spectra of F-NYG:Tb³⁺ (or Eu³⁺, Sm³⁺, and Dy³⁺).



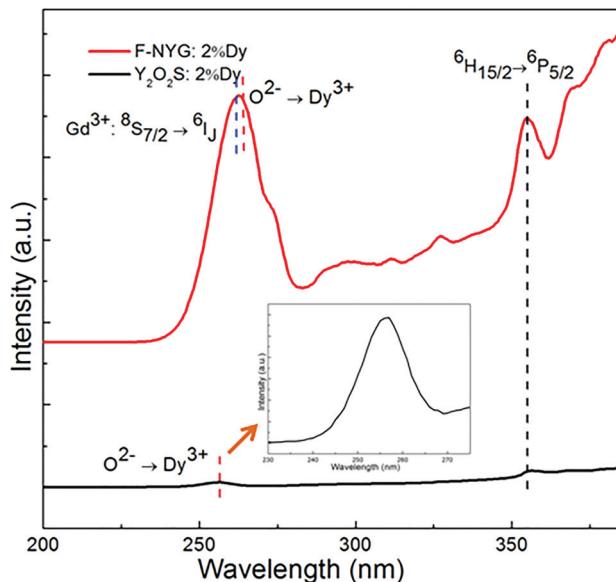


Fig. S10b PLE spectrum of F-NYG: 2%Dy (Y₂O₂S: 2%Dy).

(6) References 9 and 39 given in the sentence beginning “Multicolor emission could not...” should instead refer to the references listed below (ref. 2 and 3)

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

References

- 1 X. J. Wang, J. G. Li, M. S. Molokeev, Q. Zhu, X. D. Li and X. D. Sun, *Chem. Eng. J.*, 2016, **302**, 577–586.
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- 3 A. Podhorodecki, M. Banski, J. Misiewicz, M. Afzaal, P. O. Brien, D. Cha and X. B. Wang, *J. Mater. Chem.*, 2012, **22**, 5356–5361.