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## Correction: Controlled synthesis of lanthanide-doped Gd<sub>2</sub>O<sub>2</sub>S nanocrystals with novel excitation-dependent multicolor emissions

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Correction for 'Controlled synthesis of lanthanide-doped Gd<sub>2</sub>O<sub>2</sub>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<sup>3+</sup> and...” the phrase “4f → 5d” should instead read as “4f → 5d or 4f → 4f”.
- (2) On page 5721 in the sentence beginning “Taking the F-NYG NCs...” the phrase “4f<sup>n</sup> → 4f<sup>n-1</sup>5d<sup>1</sup>” should instead read as “4f → 5d or charge transfer band”
- (3) On page 5721 in the sentence beginning “On replacing all Gd<sup>3+</sup> ions...” the phrase “the intensity of the 4f → 5d transitions for Tb<sup>3+</sup> and Dy<sup>3+</sup> in the PLE spectra” should instead read as “the intensity of the 4f → 5d transitions for Tb<sup>3+</sup> and O<sup>2-</sup> → Dy<sup>3+</sup> charge transfer for Dy<sup>3+</sup> in the PLE spectra”.
- (4) On page 5721 in the sentence beginning “However, the color variation...” the phrase “4f → 5d transitions of Tb<sup>3+</sup> and Eu<sup>3+</sup>” should instead read as “4f → 5d transitions of Tb<sup>3+</sup> and 4f → 4f transitions of Eu<sup>3+</sup>”
- (5) The labels in Fig. 4(a) and Fig. S10(b) should be corrected, as shown in the below corrected figures.<sup>1</sup>

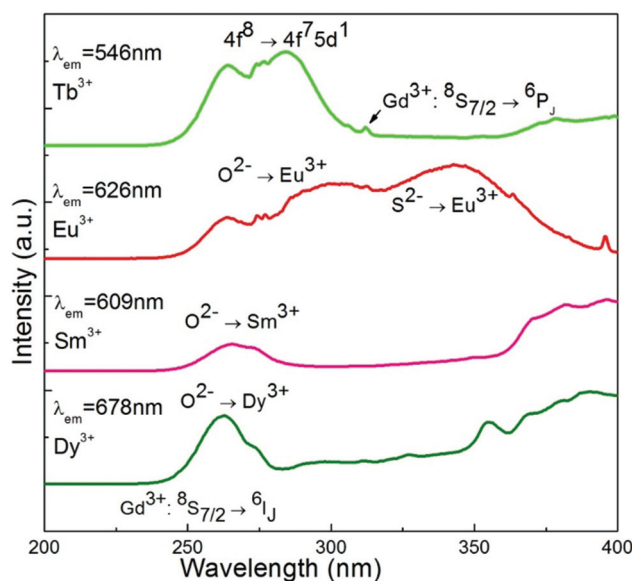


Fig. 4a PLE spectra of F-NYG:Tb<sup>3+</sup> (or Eu<sup>3+</sup>, Sm<sup>3+</sup>, and Dy<sup>3+</sup>).

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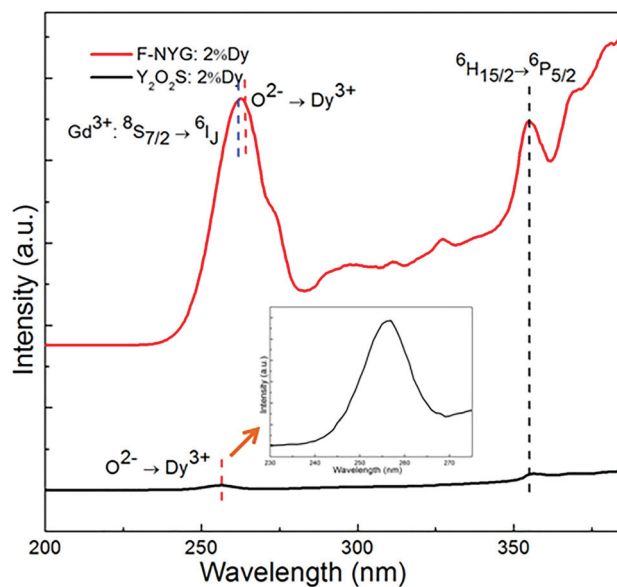


Fig. S10b PLE spectrum of F-NYG: 2%Dy (Y<sub>2</sub>O<sub>2</sub>S: 2%Dy).

(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

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- 2 J. R. DiMaio, B. Kokuoz, T. L. James and J. Ballato, *Adv. Mater.*, 2007, **19**, 3266–3270.
- 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.

