



Cite this: *Phys. Chem. Chem. Phys.*, 2017, 19, 16280

DOI: 10.1039/c7cp90127e

rs.c.li/pccp

## Correction: $\text{Eu}^{2+}$ – $\text{Eu}^{3+}$ valence transition in double, Eu-, and Na-doped PbSe from transport, magnetic, and electronic structure studies

Bartłomiej Wiendlocha,<sup>a</sup> SunPhil Kim,<sup>b</sup> Yeseul Lee,<sup>c</sup> Bin He,<sup>b</sup> Gloria Lehr,<sup>d</sup> Mercouri G. Kanatzidis,<sup>c</sup> Donald T. Morelli<sup>d</sup> and Joseph P. Heremans<sup>b,e</sup>

Correction for 'Eu<sup>2+</sup>–Eu<sup>3+</sup> valence transition in double, Eu-, and Na-doped PbSe from transport, magnetic, and electronic structure studies' by Bartłomiej Wiendlocha *et al.*, *Phys. Chem. Chem. Phys.*, 2017, 19, 9606–9616.

The authors have identified an error in the chemical formula of the sample given in the labels and description of Fig. 4c and d. These two figures show magnetization measurements for the  $\text{Pb}_{1-x-y}\text{Eu}_x\text{Na}_y\text{Se}$  sample, with  $x = 0.03$  and  $y = 0.01$ . The corrected sentence (page 9611, second paragraph), referring to this figure, should read: "The increase in Eu level in PbSe results in a larger deviation from  $M_{\text{BR}}$  as seen in Fig. 4c for the ( $x = 0.03$ ,  $y = 0.01$ ) sample." The corrected version of Fig. 4 is shown below.

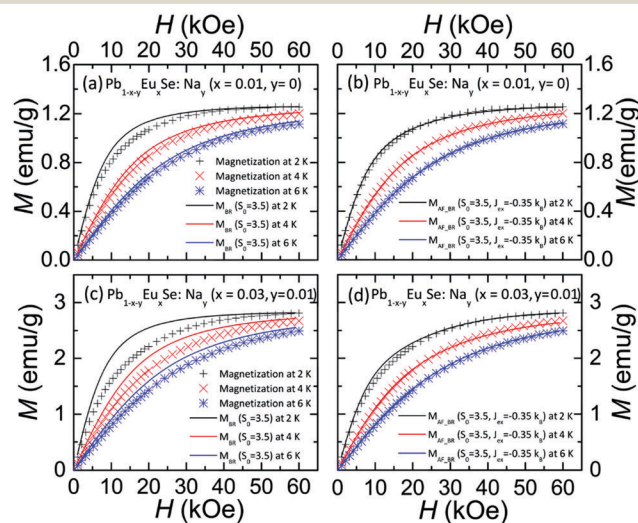


Fig. 4 Magnetization of two  $\text{Pb}_{1-x-y}\text{Eu}_x\text{Na}_y\text{Se}$  samples as a function of magnetic field. Solid lines in panels (a) and (c) are the curves of the calculated magnetization with Brillouin function (without corrections for the AF interaction). Solid lines in panels (b) and (d) are model ( $M_{\text{AF-BR}}$ ) curves that consider AF contributions of pairs and triplets to the magnetization. The much better agreement between the measured data and models on panels (b) and (d) versus (a) and (c) is clearly visible.

In addition, in eqn (4), the Brillouin function should have the index  $S$ ,  $B_S(\xi)$ , instead of  $J$ ,  $B_J(\xi)$ , which is present in the original paper. The authors apologise for these errors.

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

<sup>a</sup> Faculty of Physics and Applied Computer Science, AGH University of Science and Technology, Aleja A. Mickiewicza 30, 30-059 Krakow, Poland.

E-mail: wiendlocha@fis.agh.edu.pl

<sup>b</sup> Department of Mechanical & Aerospace Engineering, The Ohio State University, Columbus, Ohio, USA

<sup>c</sup> Department of Chemistry, Northwestern University, Evanston, IL, USA

<sup>d</sup> Department of Chemical Engineering and Materials Science, Michigan State University, East Lansing, MI, USA

<sup>e</sup> Department of Physics, The Ohio State University, Columbus, OH, USA

