ERRATUM

Topological Transition in $Pb_{1-x}Sn_xSe$ Using Meta-GGA Exchange-Correlation Functional

Acta Physica Polonica A **136**, 667 (2019), **ERRATUM**

R. Islam[a,*], G. Cuono[b,a], N.M. Nguyen[a], C. Noce[b,c] and C. Autieri[a,c]

[a] *International Research Centre Magtop, Institute of Physics, Polish Academy of Sciences, Aleja Lotników 32/46, PL-02668 Warsaw, Poland*
[b] *Dipartimento di Fisica "E.R. Caianiello", Università degli Studi di Salerno, I-84084 Fisciano (SA), Italy*
[c] *Consiglio Nazionale delle Ricerche CNR-SPIN, UOS Salerno, I-84084 Fisciano (Salerno), Italy*

orginal Doi: 10.12693/APhysPolA.136.667 *e-mail: rajibul.islam@magtop.ifpan.edu.pl
actual Doi: 10.12693/APhysPolA.139.169

We calculate the mirror Chern number (MCN) and the band gap for the $Pb_{1-x}Sn_xSe$ alloy as a function of the concentration x by using a virtual crystalline approximation. We use the electronic structure from the relativistic density functional theory calculations in the Generalized-Gradient-Approximation (GGA) and meta-GGA approximation. Our results obtained with the modified Becke–Johnson meta-GGA functional are comparable with the available experimental data for the MCN as well as for the band gap. We advise to use the modified Becke–Johnson approximation with the parameter $c = 1.10$ to describe the transition from a trivial to topological phase for this class of compounds.

topics: 31.10.+z, 73.43.Nq, 31.15.E–

This article was originally published in October 2019 with erroneously swapped captions of Figs. 1–5. The captions of Figs. 1–5 should be corrected in the following way:

- Fig. 1 should have the caption of Fig. 5,
- Fig. 2 should have the caption of Fig. 1,
- Fig. 3 should have the caption of Fig. 2,
- Fig. 4 should have the caption of Fig. 3,
- Fig. 5 should have the caption of Fig. 4.

The Editors apologize for this error.