## Journal of **Materials Chemistry C**



## CORRECTION

**View Article Online** 



Cite this: J. Mater. Chem. C, 2019, 7 6475

## Correction: Electrochemically deposited nanocrystalline InSb thin films and their electrical properties

K. E. Hnida, \*a S. Bäßler, b J. Mech, c K. Szaciłowski, R. P. Socha, d M. Gajewska, a K. Nielsch, be M. Przybylski and G. D. Sulkag

DOI: 10.1039/c9tc90107h

rsc.li/materials-c

Correction for 'Electrochemically deposited nanocrystalline InSb thin films and their electrical properties' by K. E. Hnida et al., J. Mater. Chem. C, 2016, 4, 1345-1350

There was an error in eqn (3) which was reproduced from the literature and used for the interpretation of the results. The calculations (using the equations from an original work from 1987) were done according the correct version of eqn (3) presented below:

$$\Delta E = \left[ E_{\rm g}^2 + \frac{2\hbar^2 E_{\rm g} \left(\frac{\pi}{r}\right)^2}{m^*} \right]^{0.5}$$

The obtained values show a decreased contribution of the quantum size effect to the  $E_g$  value. The quantum effect and Burstein-Moss effect contributions are now: 0.12 eV and 0.24 eV, respectively. Recalculated values of carrier concentration and mobility in InSb nanocrystalline films are gathered in Table 1.

Table 1	Recalculated values	

	Recalculated
Effective energy band gap	0.29 eV
Quantum effect contribution	0.12 eV
Burstein-Moss effect contribution	0.24 eV
Carrier concentration n	$4.10 \times 10^{17} \ \mathrm{cm^{-3}}$
Carrier mobility $\mu$	$31.4 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$

The change in the value of the recalculated parameters is not significant in comparison with data presented in the paper and does not affect the interpretation of the results.

The authors apologise for this oversight and for any confusion that it may have caused.

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

<sup>&</sup>lt;sup>a</sup> AGH University of Science and Technology, Academic Centre for Materials and Nanotechnology, al. A. Mickiewicza 30, 30-059 Krakow, Poland. E-mail: khnida@agh.edu.pl, katarzyna.hnida@gmail.com; Tel: +48 12 617 52 82

b University of Hamburg, Multifunctional Nanostructures, Institute of Nanostructure and Solid State Physics, Jungiusstrasse 11, 20-355 Hamburg, Germany

<sup>&</sup>lt;sup>c</sup> AGH University of Science and Technology, Faculty of Non-Ferrous Metals, Al. A. Mickiewicza 30, 30-059 Krakow, Poland

<sup>&</sup>lt;sup>d</sup> Jerzy Haber Institute of Catalysis and Surface Chemistry Polish Academy of Sciences, Niezapominajek 8, 30-239 Krakow, Poland

<sup>&</sup>lt;sup>e</sup> Leibniz Institute for Solid State and Materials Research Dresden, PO Box 270116, 01171 Dresden, Germany

fAGH University of Science and Technology, Faculty of Physics and Applied Computer Science, al. A. Mickiewicza 30, 30-059 Krakow, Poland

g Jagiellonian University in Krakow, Department of Physical Chemistry and Electrochemistry, Ingardena 3, 30-060 Krakow, Poland