RSC Advances



CORRECTION

View Article Online
View Journal | View Issue



Cite this: RSC Adv., 2024, 14, 28298

Correction: A computational study of the thortveitite structure of zinc pyrovanadate, $Zn_2V_2O_7$, under pressure

S. Reza, M. Maaza bc and M. S. Islam*a

DOI: 10.1039/d4ra90093f

rsc.li/rsc-advances

Correction for 'A computational study of the thortveitite structure of zinc pyrovanadate, $Zn_2V_2O_7$, under pressure' by S. Reza et al., RSC Adv., 2023, 13, 17212–17221, https://doi.org/10.1039/D3RA02426A.

The authors regret that there was an error in the first line in the introduction of the original article.

The text originally read, "The search for chemical systems suitable for lithium-ion batteries with good charge-exchange ability and high energy density¹⁻³ has attracted the attention of researchers toward electrode materials to meet the energy demand in portable electronic devices such as cell phones, laptops, computers, digital cameras, and motor vehicles due to their storage capacity which commercial batteries made of graphite lack." This sentence should read, "The search for chemical systems suitable for lithium-ion batteries with good charge-exchange ability and high energy density¹⁻³ has attracted the attention of researchers toward electrode materials to meet the energy demand in portable electronic devices such as cell phones, laptops, computers, digital cameras, and motor vehicles due to their storage capacity instead of commercial batteries made of graphite."

The authors regret that eqn (3) was shown incorrectly in the original article. The correct version of eqn (3) is as shown below. The corresponding section of the text in the manuscript should be adjusted according to this change, as detailed below.

The value of Debye temperature $\Theta_{\rm D}$ was estimated using the following expression:⁴⁷

$$\Theta_{\rm D} = \frac{h}{k_{\rm B}} \left[\frac{3n}{4\pi V_0} \right]^{\frac{1}{3}} v_{\rm a} \tag{3}$$

where h is Planck's constant, k_B is Boltzmann's constant, V_0 is the volume of the unit cell, n is the number of atoms and v_a is the average wave velocity.

The authors regret that eqn (4) was shown incorrectly in the original article. The correct version of eqn (4) is as shown below.

$$\frac{1}{m^*} = \frac{1}{\hbar^2} \frac{\partial^2 E(k)}{\partial k^2} \tag{4}$$

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

Department of Physics, University of Rajshahi, Rajshahi 6205, Bangladesh. E-mail: sislamru@gmail.com

bUNESCO-UNISA Africa Chair in Nanosciences-Nanotechnology, College of Graduate Studies, University of South Africa, Muckleneuk Ridge, PO Box 392, Pretoria, South Africa (Nanosciences African Network (NanoAFNET), Materials Research Dept., iThemba LABS-National Research Foundation of South Africa, 1 Old Faure Road, Somerset West, PO Box 722, Western Cape 7129, South Africa