

Erratum: Phonons, magnons, and lattice thermal transport in antiferromagnetic semiconductor MnTe [Phys. Rev. Materials 3, 025403 (2019)]

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One sentence in the caption of Table I is rephrased, and several references are modified. These modifications do not affect the results, discussions, or the conclusions of the paper.

(1) To avoid confusion, we rephrase “As defined, negative J_n indicates the antiferromagnetic coupling” in the caption of Table I to “As defined in Eq. (3), the presented J_n is the exchange interaction between *normalized spins*, and negative J_n indicates the antiferromagnetic coupling.”

(2) The description of local moments of previous work (on p. 4) should read: “Employing $U_{\text{eff}} = 4.8 \text{ eV}$, the calculated local moment on Mn sites in the ground state is about $4.55\mu_B$, consistent with previous work: $4.76\mu_B$ [9], $4.66\mu_B$ [38], $4.27\mu_B$ [14], $4.52\mu_B$ [13].”

(3) The reference regarding magnetic susceptibility measurements (on p. 5) should read: “Magnetic susceptibility measurements [48] of α -MnTe give a Curie-Weiss temperature”

(4) The caption of Fig. 3(a) (on p. 5) should read: “Measured data are also shown for magnons at $T = 11 \text{ K}$ (blue circles) [9], an M -point magnon at $T = 300 \text{ K}$ (blue triangle), and phonons at $T = 300 \text{ K}$ (black circles) [49].”

The corresponding discussion on the same page should read: “Figure 3(a) gives the calculated spin-wave (magnon) dispersion for the antiferromagnetic state of α -MnTe compared with measured dispersion data at $T = 11 \text{ K}$ [9] and a single data point at $T = 300 \text{ K}$ [49]. Also given are the calculated and measured [49] phonon dispersions.”

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- [9] W. Szuszkiewicz, E. Dynowska, B. Witkowska, and B. Hennion, *Phys. Rev. B* **73**, 104403 (2006).
 [13] M. Krause and F. Bechstedt, *J. Supercond. Nov. Magn.* **26**, 1963 (2013).
 [14] D. Kriegner, H. Reichlova, J. Grenzer, W. Schmidt, E. Ressouche, J. Godinho, T. Wagner, S. Y. Martin, A. B. Shick, V. V. Volobuev, G. Springholz, V. Holý, J. Wunderlich, T. Jungwirth, and K. Výborný, *Phys. Rev. B* **96**, 214418 (2017).
 [38] S. J. Youn, B. I. Min, and A. J. Freeman, *Phys. Status Solidi B* **241**, 1411 (2004).
 [48] T. Komatsubara, M. Murakami, and E. Hirahara, *J. Phys. Soc. Japan* **18**, 356 (1963).
 [49] W. Szuszkiewicz, B. Hennion, B. Witkowska, E. Łusakowska, and A. Mycielski, *Phys. Status Solidi C* **2**, 1141 (2005).