

Erratum: “Acquisition and Analysis of Scanning Tunneling Spectroscopy Data – WSe₂ Monolayer” [J. Vac. Sci. Technol. A 39, 011001 (2021)]

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The original article¹ contained two errors, both arising from incorrect conversion of data between different computing systems employed in the data analysis. The first error affects the absolute magnitude of the conductance shown in the plots. Sometimes the absolute magnitude of the conductance is not listed on such plots, so that no correction is needed, but in cases where the magnitude is listed then it should be corrected (increased) as specified here. The correction is given by the ratio of 1 V divided by the peak modulation voltage V_p (half of the peak-to-peak voltage) employed in the measurement. Typically we employed $V_p = 25$ mV, so that the correction to the conductance values shown on the plots is 40×. The only exception to that is for Fig. S3 of the Supplemental Data, for which $V_p = 10$ mV so that the correction is 100×. In any case, the fits to the conductance spectra are unaffected since the overall magnitude is a free parameter in the fit.

The second error arose from our Fig. 2, which as referenced in the original article was derived from a band structure plotted in the work of Yun *et al.*² A digitization of their plot was employed in constructing our figure, but unfortunately a calibration factor in the horizontal axis (magnitude of the wave vector) in this digitization procedure was neglected. This error does not affect Fig. 2 itself (since the wave vector values are simply listed by symbols, as is conventional), but nonetheless these incorrect numerical values of wave vector were then employed in all of our fits. These wave vectors were incorrect (too small) by a factor of 1.366, so that the effective masses utilized in the fits must be corrected by the square of this factor. In round figures (since the effective masses were just estimated from the plots and the fits are relatively insensitive to them), we have redone all fits simply using effective masses that are 2× larger than those listed in our original article. With that revision, the values of the other fit parameters ($E_0 - E_F$, ν , and σ_a) are unchanged from those listed in the original article. Also, the fits themselves are very nearly identical to those of the original article.

References:

1. R. M. Feenstra, G. R. Frazier, Y. Pan, S. Fölsch, Y.-C. Lin, B. Jariwala, K. Zhang, and J. A. Robinson, J. Vac. Sci. Technol. A **39**, 011001 (2021).
2. W. S. Yun, S. W. Han, S. C. Hong, I. G. Kim, and J. D. Lee, Phys. Rev. B **85**, 033305 (2012).

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