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Ground State of trans-Polyacetylene and the Peierls Mechanism - Errata

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ERRATA

Ground State of *trans*-Polyacetylene and the Peierls Mechanism. J. ASHKENAZI, W. E. PICKETT, H. KRAKAUER, C. S. WANG, B. M. KLEIN, and S. R. CHUBB [Phys. Rev. Lett. **62**, 2016 (1989)].

In Fig. 1 the model Peierls energy defined in Eq. (1) was scaled incorrectly (drawn to our attention by J. Mintmire and C. White). Correcting this error, and accounting both for two CH units per cell and for spin degeneracy to allow the most direct comparison, the resulting curve is rescaled and presented here. The local-density calculations are independent of this model term, which is simply shown for comparison. The inference drawn in paragraph 1, p. 2018, concerning the large cancellation of nonanalytic terms is modified; the canceling terms (again, simply inferred) are smaller than suggested originally. All other results of the paper are unaffected by this correction.

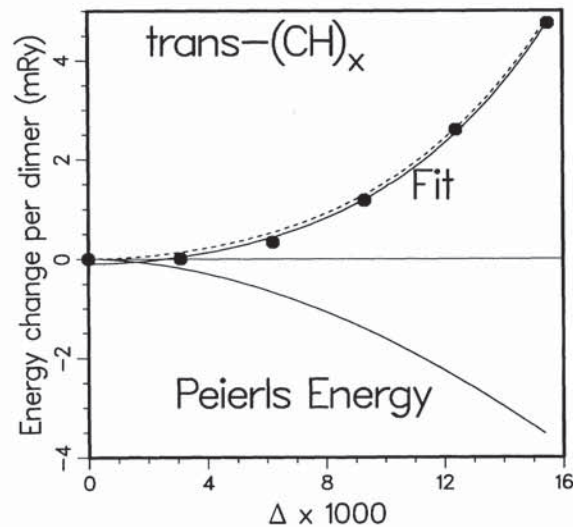


FIG. 1. Calculated energy of distortion (symbols) vs $\Delta = E_g/2W$ for *trans*-(CH)_x. Note that Δ is proportional to the distortion magnitude u . Also shown are the five-parameter fit of Eq. (7) (upper solid line), the two-parameter representation (see text, dotted line), and the Peierls band energy of Eq. (1) (lower solid line) scaled to energy/dimer and including spin degeneracy.