ERRATA

Exact Solution of the Electrostatic Problem for a Single Electron Multijunction Trap [Phys. Rev. Lett. 74, 1839 (1995)]

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As a result of various communications from S. Han, we conclude that our criticism of the Dresselhaus *et al.* Letter [1] is incorrect. Our calculation of the change in free energy ΔF was obtained by first calculating the voltage (V) independent electrostatic energy part ΔE and next adding to it the term for the work done, which is V dependent. We compared our ΔE result with what we thought was the corresponding result in Ref. [1] because it did not contain V explicitly but, as we now realize, the latter result was actually calculated for a given $V = -e/2C_w$. As a result, our remark that "...there cannot be any real trapped electron..." for the system described in Ref. [1] is incorrect as are our other comments on that experiment. In fact, if we used our Eqs. (17) and (18) to analyze this experiment, we would have concluded that the threshold voltages (in units of $e/2C$) for tunneling and escape are -21 and -9, respectively, which makes clear that the system in Ref. [1] does trap electrons and that hysteresis does occur. (Furthermore, contrary to what we stated in the text, (17) and (18) are generally true and are not subject to the condition given in (11). In other words, with an appropriate voltage bias, single electron traps, having a small well capacitance $NC_\omega \ll C$, can have a finite free energy potential barrier and thus are capable of trapping a single electron.) In fact, we can also better explain the hysteresis features in Fig. 2 of Ref. [1] by allowing for a small nonzero stray capacitance and for cotunneling [2]. Finally, we emphasize that all our equations are correct except for the following misprints: (i) There should be a $-$ sign instead of a $+$ sign in front of $\delta_{k'o}$ in Eq. (15) and (16). (ii) In the last paragraph of p. 1841, the equation designations should read (7) instead of (9) and (7) instead of (11).

We would like to express our thanks to Dr. Siyuan Han for several detailed explanations of the work outlined in Ref. [1].

[1] P. D. Dresselhaus, L. Ji Siyuan Han, J. E. Lukens, and K. K. Likharev, Phys. Rev. Lett. **72**, 3226 (1994).
[2] G. Y. Hu and R. F. O'Connell, Phys. Rev. B (to be published).