Tight-Binding Approach to Electronic Structure of C_{60}

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"2pπ-band" appearing in the sentences from the 5-th line to the 7-th line in the right column at p. 3762 should be replaced by "2pσ-band."

Electronic Structure of One-Dimensional Quasiperiodic Materials of $AB_{1-x}C_x$

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I have found an error in eq. (16) and accordingly in the following paragraph in p. 181: "This vanishing invariant$\cdots$in the theory of the BQPLs." Therefore, it should be replaced as follows:
"Substitute into the invariant of eq. (13) and after a straightforward but tedious calculation we obtain

$$I=\frac{E^2}{4T_a^2}\left(\frac{T_b}{T_c}-\frac{T_c}{T_b}\right)^2, \tag{16}$$

where we have used

$$\cosh^2(u)+\cosh^2(v)+\cosh^2(u+v)-2\cosh(u)\cosh(v)\cosh(u+v)-1=0,$$
$$\cosh(u)\equiv(T_a/T_b+T_b/T_a)/2 \quad \text{and} \quad \cosh(v)\equiv(T_a/T_c+T_c/T_a)/2. \tag{17}$$

This invariant I vanishes at $T_b=T_c$ or $E=0$. Otherwise, it is always positive. This vanishing invariant at $T_b=T_c$ usually means that there is no quasiperiodicity in the system such that the system is trivial,[11,12,18] while the non-vanishing invariant means that the quasiperiodicity is effective. However, the vanishing invariant at $E=0$ is not the case in our problem. No matter what values of T_a, T_b, and T_c are set, the invariant is always zero at this energy $E=0$, because of the identity in eq. (17).[19] It rather means that unless $T_b=T_c$ the energy level at $E=0$ always belongs to a band gap, while the energy level at $E=0$ belongs to the six-cycle in the usual setting of two types of atoms (i.e., $A_{1-x}B_x$), where $I=(T_a/T_b-T_b/T_a)^2/4$.[11,12,18] This implies the validity of the SHL theorem in our problem, which will be discussed later. Thus, we see the reason why we have a Cantor set in the entire spectrum, which will be demonstrated just below. And this situation is essentially new in the theory of the BQPLs."