Erratum: Exact Green's function for the step and square-barrier potentials

M. A. M. de Aguiar

PACS number(s): 03.65.Db, 03.65.Nk, 99.10.+g

We regret that in the above paper some equations have been misprinted. We list below the corrections to these equations:

1. Equation (3.3), for \( k > k_0 \) should read
   \[
   G^\pm_+(x, x', E) = \pm \frac{m}{ik} \left[ e^{i(k|x - x'|/2)} + r(k)e^{i(k(x + x')/2)} \right].
   \]

2. Equation (4.5). The conditions for \( k > k_0 \) and \( k < k_0 \) should be interchanged.

3. Equation (4.6) should read
   \[
   G^\pm_{00}(x, x', E) = \frac{m}{k^2} \left[ \frac{e^{\pm ika}}{\sin 2\mu a} \left\{ [\alpha_+(\pm k)e^{\mp i\mu a} - \alpha_-(\pm k)e^{\pm i\mu a}]\cos\mu(x + x') \right. \right.
   \]
   
   \[
   \left. \left. - [\alpha_+(\pm k)e^{\mp i\mu a} - \alpha_-(\pm k)e^{\pm i\mu a}]\cos\mu(x - x') \right\}, \quad \text{if } k > k_0
   \]
   
   \[
   \left. \left. - [\beta_-(\pm k)e^{-i\mu a} - \beta_+(\pm k)e^{i\mu a}]\cosh\mu(x + x') \right\}, \quad \text{if } k < k_0
   \]

4. The continuity conditions for the Green's function of the square-barrier potential (p. 2571) should read
   \[
   G^-(-a, x', E) = G^-_0(-a, x', E),
   \]
   \[
   G^-_0(x, -a, E) = G^-_{00}(x, -a, E).
   \]

The author is indebted to Dr. L. Dekar for noticing the misprints.

Erratum: Equations satisfied by the kinetic-energy functional and its derivatives

Daniel P. Joubert

PACS number(s): 31.15.Ew, 71.10.+x, 99.10.+g

Equation (13) should read
\[
(\nabla_1 + \cdots + \nabla_m)T^m(r_1, r_2, \ldots, r_m, [n]) = - \int dr n(r) \nabla^{m+1}T^{m+1}(r, r_1, r_2, \ldots, r_m, [n]).
\]

As a consequence, Eq. (14),
\[
T[n] = -\frac{1}{2}(-1)^m \frac{1}{m!} \int \prod_{i=1}^{m+1} \{dr_i n(r_i)\} r_{m+1} \cdot \nabla_1 T^{m+1}(r_1, r_2, \ldots, r_{m+1}, [n]),
\]

is valid for \( m = 0, 1 \) only.