

Erratum to: ${}^7\text{Li}$ and ${}^7\text{Be}$ isotopes in a new cluster model

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After publication, the authors noticed the following:

- 1) In eq. (1), $\psi_{N,L}$ represents eigenfunctions which vary with the eigenfunctions of eq. (5). Therefore, eq. (1) is modified as follows:

$$\left[-\frac{\hbar^2}{2\mu} \nabla^2 + V(r) \right] U_{N,L}(r, \theta, \phi) = E_{N,L} U_{N,L}(r, \theta, \phi). \quad (1)$$

- 2) As stated on page 2, the potential is formed by the sum of the Hulthen potential and quadratic Yukawa potential; eq. (3) should read

$$V(r) = -V_0 \frac{e^{-2\alpha r}}{(1 - e^{-2\alpha r})} + k \frac{e^{-2\alpha r}}{r^2}. \quad (3)$$

Equation (5) should read

$$\left[\frac{d^2}{dr^2} + \frac{2\mu}{\hbar^2} \left\{ E_{N,L} - \left(-V_0 \frac{e^{-2\alpha r}}{1 - e^{-2\alpha r}} + k \frac{e^{-2\alpha r}}{r^2} \right) - \frac{\hbar^2 L(L+1)}{2\mu r^2} \right\} \right] \psi_{N,L}(r) = 0. \quad (5)$$

- 3) In sect. 3.2, in the formula for the electric quadrupole moment, a factor 4π is missing. The correct form is:

$$eQ = e \int \psi_{NL}^{(0)}(r)^* (3z^2 - r^2) \psi_{NL}^{(0)}(r) dV = 4\pi e \int \psi_{NL}^{(0)}(r)^* (3z^2 - r^2) \psi_{NL}^{(0)}(r) r^2 dr.$$

- 4) On pages 2 and 3, “Wildermuth” is misspelled “Widermuth”.

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