

Erratum: Relation between the electron scattering length and the van der Waals approximation to the equation of state
[Phys. Rev. A 49, 348 (1994)]

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PACS number(s): 34.80.Bm, 33.20.Ni, 42.25.Ja, 99.10.+g

We found an algebraic error in Eq. (3). It should read

$$\begin{aligned}\delta_0 &\cong -kR - \frac{2m_e k}{\hbar^2} \int_R^\infty \frac{-\alpha e^2 \sin^2[k(r-R)]}{2r^4 k^2} dr \\ &= -kR + \frac{m_e \alpha e^2 k^2}{\hbar^2} \int_{kR}^\infty \frac{\sin^2(x-kR)}{x^4} dx.\end{aligned}$$

After making the appropriate corrections in Eqs. (4)–(6), Eq. (6) becomes

$$A = R - \frac{\alpha}{3R}.$$

It follows that the slope of the scattering length vs polarizability (Fig. 1), as calculated, is smaller by a factor of about 3 than that obtained in experiment.

We are indebted to Dr. R. Szmytkowski for commenting on the paper; this led to the discovery of our error.

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Erratum: Quantum theory of continuous feedback
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Equation (2.55) should read

$$x(t+dt) = \exp[\gamma(x')dW(t-\tau)\partial_{x'}]x', \quad (1)$$

where $x' = x(t) + b(x(t))dW(t)$. Consequently, $\gamma(x)b'(x)$ should be replaced by $\gamma'(x)b(x)$ in Eq. (2.56).

In addition, a previous Erratum concerning Eq. (2.58) has appeared [1].

[1] H. M. Wiseman, Phys. Rev. A **49**, 5159 (1994).