Errata

Erratum: Rydberg states of helium: Relativistic and second-order corrections
[Phys. Rev. A 31, 1253 (1985)]

Richard J. Drachman

An algebraic error resulted in several incorrect formulas. The right-hand side of Eq. (8) should read

$$\frac{4(Z\alpha)^2[(2l-1)!](2l^4+5l^3+2l^2-2)}{(2Zx)^{2l+2}l(l+1)(2l+1)} ,$$

leading to the following form for Eq. (14):

$$g_l = \sum_{k=2}^{2l+1} \frac{1}{k} + \frac{(6l^4+13l^3+5l^2-2)}{2l(l+1)(l+2)(2l+1)^2} .$$

This gives rise to the corrected values $g_1 = \frac{28}{27}$, $g_2 = \frac{293}{200}$, and $g_3 = \frac{5123}{2940}$. Notice that g_1 is unchanged from its former value, and hence none of the tabulated results must be modified.

The following references were overlooked.

M. L. Bartlett and E. A. Power, J. Phys. A 2, 419 (1969).
N. L. Manakov, L. P. Rapoport, and S. A. Zapryagaev, J. Phys. B 7, 1076 (1974).
A. F. Shestakov and S. V. Khristenko, Opt. Spectrosc. 36, 369 (1974).
S. Kaneko, J. Phys. B 10, 3347 (1977).

Some of these treated only the $l = 1$ case and others discussed all multipoles. The present work is the only one using ordinary perturbation theory with the Breit-Pauli Hamiltonian.

Erratum: Discrepancy between theory and experiment for noncoplanar symmetric (e,2e) momentum profiles of $H_2(^1\Sigma_g^+)$
[Phys. Rev. A 32, 3784 (1985)]

J. W. Liu

Because of a computational error in the evaluation of the normalization constant for the residual-ion wave function for the $2p\pi_u$ transition, the values for this transition in Table I should read according to the table given below. Also, the following corrections to the text should be made. Page 3785, left column, lines 10 and 12: change "0.000 002" to "0.0003." Page 3785, right column: change "0.0242" to "0.0245" in line 7, change "0.0262" to "0.0265" in line 8, change "0.0248" to "0.0267" in line 10, and change "34%" to "26%" in line 11.
No other conclusions or comments in the paper are affected.