Errata

Erratum: Contradictions with the neoclassical theory of radiation in weakly excited multilevel systems [Phys. Rev. A 7, 1766 (1973)]

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E. T. Jaynes has pointed out that Eq. (8a) gives, for no pumping light ($\tau_p = \infty$), an equilibrium value of a different from a_0. The mistake was made by solving the equations with $a_0 = 0$ and then inserting a_0 in afterwards incorrectly. The analysis and conclusions of the paper are valid if one sets $a_0 = 0$ in Eqs. (8a) and (12a); in fact, $a_0 \approx e^{-\Delta E/kT} \approx e^{-60}$. Alternatively, a_0 can be included if the T terms of Eqs. (8) are replaced by

$$-(a - a_0)/T + a_0(b_0 A_{ab} + c_0 A_{ac} + d_0 A_{ad}),$$

$$-[b - b_0(1 - a_0 T A_{ab})]/T,$$

$$-[c - c_0(1 - a_0 T A_{ac})]/T,$$

and

$$-[d - d_0(1 - a_0 T A_{ad})]/T$$

and Eq. (12a) by

$$\bar{a} \approx \frac{\bar{b}/\tau_p + a_0(A_a + 1/T)}{A_a + 1/T} \approx \bar{b}/\tau_p A_a .$$

Erratum: Semiprecision calculations of electron-hydrogen resonances [Phys. Rev. A 8, 2184 (1973)]

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A factor of π was omitted in the formula for the bound-state contribution to the shift. Equation (3a) should read

$$\Gamma_b = 2\pi |\langle P\Upsilon_{1S} | H | Q\Phi \rangle|^2 . \qquad (3a)$$

The resultant contribution to the shift in Table I should therefore be multiplied by π and is correctly (results in eV)

$$\Delta_b = +0.0033$$

so that

$$\Delta = -0.0033$$

and

$$E = 9.5487 .$$

This value of E is our final value of the ^1S resonance energy which should also appear in Table II. The new result is within the stated uncertainty (± 0.003) of our previous result. The general conclusions are not altered: the result is even closer to the result of Chung and Chen (Ref. 7) and significantly different from Bardsley and Junker (Ref. 8), Burke and Taylor (Ref. 10), and a new complex rotation method result of Doolen, Nuttall, and Stagat (to be published).

Our He $^1P(2s2p)$ resonance bound-state contribution formula [Ref. 6, Eq (1.9b)] is also similarly affected. However the numerical value is so small there that the final value of E is only minimally affected. Those corrections are given in the following erratum.