isomer shift of metallic iron in transition through its Curie temperature has been reported,[17] and several mechanisms to explain it have been discussed in the literature.[17–19]

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Errata

Theory of Resonance Broadening of Spectral Lines by Atom-Atom Impacts, A. W. ALI AND H. R. GRIEM [Phys. Rev. **140**, A1044 (1965)]. In taking averages over the directions of the vectors $\boldsymbol{\rho}$ and $\mathbf{v}$, correlations between their components due to orthogonality and normalization of these vectors were treated incorrectly. With corrected relations for the averages like $\{\rho_x^2\rho_y^2\}=(1/15)\rho^4$, $\{\rho_x^2v_x^2\}=(1/15)\rho^2v^2$, and $\{\rho_x\rho_yv_xv_y\}=-\frac{1}{2}\{\rho_x^2v_x^2\}$, the coefficients in Eq. (7) become $+2/5$ and $+2/15$ instead of $+10/9$ and $-2/9$. In all subsequent relations for the second-order term, the correct numerical coefficient is obtained by substituting "3" for "7" (or "9" for "21"). Using especially the orthogonality relation to re-evaluate the fourth-order term, the quantity ϵ is now calculated to be exactly 0.25 rather than 0.62. The numerical factor in the final result is thus $2(1-1/24)\approx1.92$ as compared to 2.74 in Eq. (22) of the original paper. This new resonance width is only 6% larger than Byron and Foley's result (Ref. 4). Note also that the paper by Tsao and Curnette (Ref. 5) has been published in J. Quant. Spectr. Radiative Transfer **2**, 41 (1962).

Theory of Wing Broadening of the Hydrogen Lyman-α Line by Electrons and Ions in a Plasma, HANS R. GRIEM [Phys. Rev. **140**, A1140 (1965)]. As recognized by G. Peach, Eq. (10) represents a binomial series multiplied with $\frac{9}{2}(u_x^2+u_y^2)$, the series yielding $3^{2(l-1)}$. The right-hand side of Eq. (11) thus becomes 3^{2l-1}. This differs from the original result because of the incorrect use there, e.g., of $\{u_x^2u_y^2\}=\frac{1}{9}$ rather than of $\{u_x^2u_y^2\}=1/15$. To correct Eq. (12), the triple sum (multiplied with $\frac{3}{2}$) must be replaced by

$$\sum_{l=2}^{\infty}\frac{(-1)^l}{(l-1)(2l)!}\left(\frac{6\hbar}{m\rho v}\right)^{2(l-1)},$$

resulting in new constants or coefficients of -0.891_5 and $\frac{3}{2}$ for Eq. (14) rather than -0.967 and 19/10. Using relations like $\{\rho_x^2\rho_y^2\}=(1/15)\rho^4$, $\{\rho_x^2v_x^2+2\rho_x\rho_yv_xv_y\}=0$, and $\{\rho_x^2v_x^2+2\rho_x^2v_y^2\}=\frac{1}{3}\rho^2v^2$, the coefficient of the quadrupole correction term in Eq. (17) is now calculated as 8 instead of 28. In the final results, i.e., in Eqs. (32b) and (34), the coefficient 14/3 must therefore be replaced by $\frac{4}{3}$ and the constant term $\frac{1}{10}$ be doubled, because in the original calculations a constant term -1 was used instead of the correct value -0.891_5. For the plasma conditions and wavelength ranges of the arc (Ref. 10) and shock tube (Ref. 9) experiments, these corrections result in reductions of the intensities by at most 5 and 7%, respectively.