Erratum: Optical second-harmonic generation in atomic vapors with focused beams
D. S. Bethune

Following Eq. (5c), the next two sentences should be replaced by “The \((\mathbf{E} \cdot \nabla)\mathbf{E} \) and \(\mathbf{E} \times \mathbf{B}\) terms of Eq. (5a) combine to give the gradient term in Eq. (5c), which in a uniform medium is a purely irrotational polarization (having vanishing curl) and cannot radiate except at boundaries, where it can give a radiating dipole layer.\(^{12}\) However, in a nonuniform plasma both terms in Eq. (5c) can radiate.”

Equation (5d) should be replaced by
\[
\tilde{P}(2\omega) = \chi_{fe}^{(2)(2\omega)}(2\omega / R^2)[\mathbf{E}^2 - 4\mathbf{E} \cdot \mathbf{E}\mathbf{E}] / \epsilon_{\parallel} .
\]

Because the second term dominates, the description of the polarization and radiation patterns following Eq. (5d) will still be essentially correct.

Similarly, if the density of neutral atoms is nonuniform, all of the terms in Eq. (15) can radiate second-harmonic light. Noting that the addition of the gradient of any scalar field to the polarization field does not alter the radiation properties, the polarization in Eq. (15) can be transformed to have two dominant terms in a nonuniform vapor:
\[
\tilde{P}(2\omega) \approx -\chi_{a}^{(2)(2\omega)}(\nabla \ln N)\mathbf{E}^2 - \chi_{b}^{(2)(2\omega)}[(\nabla \ln N) \cdot \mathbf{E}]\mathbf{E} .
\]

For a highly nonuniform atomic density resulting, for example, from multiphoton ionization, these terms may make a major contribution to SHG, with essentially the strength indicated in the last row of Table I of the original article (for two noncollinear cross-polarized beams). In this case the polarization, radiation pattern, and phase-matching properties of the SHG would be essentially those of the third-order case [Sec. IV and Eq. (23)], with \(R_x = \chi_{a}^{(2)(2\omega)} / \chi_{b}^{(2)(2\omega)}\).

Erratum: Photoabsorption and photoemission of Cu near the 3p threshold
L. C. Davis and L. A. Feldkamp

Equation (9) should read
\[
\Gamma_{ILS} = 100 \pi (2l + 1)(2L + 1)(2S + 1)
	\times \sum_{K=1,3} \frac{1}{2K+1} R_K(3p;el;3d,3d)(1200 \mid K0\rangle \langle 1200 \mid K0\rangle \left[ \begin{array}{cc} l & 1 \\ 2 & L \end{array} \right] \right)^2 .
\]

The numerical results are correct. The caption for Fig. 4 should read “Calculated absorption (arbitrary zero). . . .”