Erratum: "Long-range orientation correlation in dipolar liquids probed by hyper-Rayleigh scattering" [J. Chem. Phys. 143, 134503 (2015)]

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The $K = 0$ limits of Eqs. (11) and (12) in Ref. 1 were incorrectly evaluated to obtain Eqs. (22) and (23) in Ref. 1. For finite r_1 and $K = 0$, the correct expression for Eq. (22) is

$$S_{T,0}(0) = S_{L,0}(0) = 4\pi \int_0^{r_1} r^2 dr [B_L(r) + 2B_T(r)]/3. \tag{22}$$

Using Eq. (20), one has $[B_L(r) + 2B_T(r)]/3 = [1 + (r/a)^2]^{-5/2}$ and

$$S_{T,1}(0) = 2\pi a^3 + \frac{4\pi}{9}r_0^3 - \frac{4\pi}{3}a^3[1 + (a/r_1)^2]^{-3/2}, \tag{23a}$$

$$S_{L,1}(0) = 0 + \frac{4\pi}{9}r_0^3 - \frac{4\pi}{3}a^3[1 + (a/r_1)^2]^{-3/2}. \tag{23b}$$

The corrections to Eqs. (22) and (23) do not change the conclusions of Ref. 1, but the corrected expressions show that for $K = 0$ the difference between S_T and S_L is entirely due to the orientation correlation at a long range.

[1] D. P. Shelton, J. Chem. Phys. **143**, 134503 (2015).