

**Erratum: Optically induced forces and torques: Interactions between nanoparticles
in a laser beam**
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We wish to correct some minor errors in our recent paper, arising from an ambiguity between colocated Cartesian frames of reference. In Eq. (3.1), angular factors are referred to a Cartesian frame where Z is identified with the molecular axis, though tensor components are referred to the previously described laboratory frame in which Z is the inter-particle director. Resolving into a common frame of reference and then proceeding, the laser-induced force expression of (3.3) is properly written as

$$F_z = \left(\frac{I}{4\pi\epsilon_0^2 c R^4} \right) \left(\{ \alpha_{\perp}^2 [\sin^2 \phi (3 - \cos^2 \theta) - 2] + \alpha_{\parallel}^2 \sin^2 \phi \cos^2 \theta \} \right. \\ \times \{ 3\hat{R}_z \cos kR \cos(\mathbf{k} \cdot \mathbf{R}) + kR [3\hat{R}_z \sin kR \cos(\mathbf{k} \cdot \mathbf{R}) + \hat{k}_z \cos kR \sin(\mathbf{k} \cdot \mathbf{R})] - k^2 R^2 [\hat{R}_z \cos kR \cos(\mathbf{k} \cdot \mathbf{R}) \\ - \hat{k}_z \sin kR \sin(\mathbf{k} \cdot \mathbf{R})] \} - \{ \alpha_{\perp}^2 \sin^2 \phi \sin^2 \theta + \alpha_{\parallel}^2 \sin^2 \phi \cos^2 \theta \} \{ k^2 R^2 \hat{R}_z \cos kR \cos(\mathbf{k} \cdot \mathbf{R}) \\ + k^3 R^3 [\hat{R}_z \sin kR \cos(\mathbf{k} \cdot \mathbf{R}) + \hat{k}_z \cos kR \sin(\mathbf{k} \cdot \mathbf{R})] \} \left. \right).$$

The short-range result for a pair of *spherical* nanoparticles thus vanishes on taking a rotational average $\langle F_z^0 \rangle = 0$ instead of the result given as (3.6). There is no optical binding force under these specific conditions. Effecting a similar correction for the polar contributions, Eq. (3.9) should read

$$F_z^0 = \left(\frac{3I\hat{R}_z}{4\pi\epsilon_0^2 c R^4} \right) \left\{ [\alpha_{\parallel}^2 + \mu_{\parallel}(\beta_{\parallel} - \beta_{\perp 2})] \sin^2 \phi \cos^2 \theta + \mu_{\parallel} \beta_{\perp 2} + \alpha_{\perp}^2 [\sin^2 \phi (3 - \cos^2 \theta) - 2] \right\}.$$

Results (3.10)–(3.19) are all correct. In Eqs. (4.5)–(4.8), $\cos \phi$ replaces $\sin \phi$ and vice versa. All the graphical results, and their interpretations, are correct.