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ERRATA

Theoretical studies of the influence of backflow on the dynamical behaviour of a Fredericks transition of a ferroelectric smectic C* liquid crystal in the bookshelf geometry

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Owing to an error at an early stage of this research some equations in this paper are incorrect. The corrected version of these equations follow below. We want to emphasize that all results presented in figures 3–6 are still correct.

The text starting on first line after equation (17) and ending with equation (19) shall be replaced by:

It is possible to show that when studying a system for which the smectic layers are assumed to be fixed, the z-component of the torque equation (10) is the relevant one to study [3]. This is because the symmetry of the system implies that the most general form the countertorque can adopt is given by [3]

$$\Gamma^{c} = \Gamma^{c}_{x}\hat{\mathbf{x}} + \Gamma^{c}_{y}\hat{\mathbf{y}}, \tag{18}$$

where Γ^{c}_{x} and Γ^{c}_{y} are the x- and y-components of the countertorque, respectively.

The z-component of the elastic torque can be calculated as [3, 11]

$$\Gamma^{el}_{z} = -\left(\frac{\partial g^{el}}{\partial \phi} - \frac{\partial}{\partial x}\frac{\partial g^{el}}{\partial \phi'_{x}} - \frac{\partial}{\partial y}\frac{\partial g^{el}}{\partial \phi'_{y}} - \frac{\partial}{\partial z}\frac{\partial g^{el}}{\partial \phi'_{z}}\right). \tag{19}$$

Below follows a list of the correct versions of the erroneous equations:

$$\Gamma^{\varepsilon}_{z} = -\left(\frac{\partial g^{\varepsilon}}{\partial \phi} - \frac{\partial}{\partial x}\frac{\partial g^{\varepsilon}}{\partial \phi'_{x}} - \frac{\partial}{\partial y}\frac{\partial g^{\varepsilon}}{\partial \phi'_{y}} - \frac{\partial}{\partial z}\frac{\partial g^{\varepsilon}}{\partial \phi'_{z}}\right). \tag{21}$$

$$\Gamma^{\varepsilon}_{z} = -P_0E_0\sin\phi, \tag{28}$$

$$\Gamma^{\varepsilon}_{z} = -\bar{P}E_0\theta\sin\phi, \tag{30}$$

$$2\bar{\lambda}_5\dot{\phi}\theta + [\bar{\lambda}_5 + \bar{\lambda}_2(\cos^2\phi - \sin^2\phi)]\theta v'_y - [(\bar{B}_1\sin^2\phi + \bar{B}_2\cos^2\phi)\phi''_{yy} + \tfrac{1}{2}(\bar{B}_1 - \bar{B}_2)\sin 2\phi\phi'^{2}_{y}]\theta - \bar{P}E_0\sin\phi = 0, \tag{33}$$

$$\frac{\bar{B}_2\theta}{\bar{P}E_0}\phi'' + \phi = \frac{2\bar{\lambda}_5\theta}{\bar{P}E_0}\dot{\phi} + \frac{(\bar{\lambda}_2 + \bar{\lambda}_5)\theta}{\bar{P}E_0}v', \tag{37}$$

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$$\alpha = \frac{\bar{\lambda}_2 + \bar{\lambda}_5}{2\bar{\lambda}_5}, \quad \beta = \frac{2\bar{\lambda}_5\theta}{\bar{P}E_0}, \tag{41 a}$$

$$\bar{t}_0 = \frac{2\bar{\lambda}_5 d^2}{\bar{B}_2\pi^2}, \tag{48}$$

$$\bar{\lambda}_5 > 0, \quad \mu_0 > 0, \tag{65}$$

$$A(\phi) = \frac{[\bar{\lambda}_5 + \bar{\lambda}_2(\cos^2\phi - \sin^2\phi)]^2\theta^2}{\bar{\lambda}_5\{\mu_0 + [\bar{\mu}_4 + \bar{\lambda}_5 + 2\bar{\lambda}_2(\cos^2\phi - \sin^2\phi)]\theta^2 + 2\bar{\mu}_3\sin^2\phi\cos^2\phi\theta^4\}}. \tag{68}$$