Macromolecules

Addition/Correction

Correction to Force and Scale Dependence of the Elasticity of Self-Assembled DNA Bottle Brushes

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Equation 12 should read

$$\Gamma_0 = \frac{2\pi}{\xi}\left(\frac{P_0 k_B T}{f}\right)^{1/2} \tag{A.1}$$

and eq 13 should read

$$\Gamma = \frac{2\pi}{\xi}\left(\frac{(P_0 + \Delta P) k_B T}{f}\right)^{1/2} \tag{A.2}$$

Note that the in the (corrected) expressions for the dimensionless parameters Γ_0 and Γ one recognizes the Odijk deflection lengths $\lambda_0 = (P_0 k_B T/f)^{1/2}$ and $\lambda = ((P_0 + \Delta P) k_B T/f)^{1/2}$. In terms of these deflection lengths the dimensionless parameters are simply $\Gamma_0 = 2\pi\lambda_0/\xi$ and $\Gamma = 2\pi\lambda/\xi$. No explicit expression was given for the force-dependent apparent persistence length $P_{app}(f)$. Upon substituting eq 10 in eq 6, one finds the simple result

$$P_{app}(f) = \frac{P_0}{1 + \gamma} \tag{A.3}$$

with the dimensionless factor γ being given by eq 11 and the corrected versions of eqs 12 and 13, viz. eqs A.1 and A.2.