

## A generalized theory of DNA looping and cyclization

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*Erratum*

## A generalized theory of DNA looping and cyclization

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We incorrectly reported the sign of the sub-dominant exponential factor  $\frac{L}{4\ell_p}$  introduced by Shimada and Yamakawa [1]. The corrected form of eq. (5) is then

$$\begin{aligned}
 J &= \frac{1}{\ell_p^3} \sqrt{\frac{\det \mathcal{H}^o}{2\pi^3 \det \mathcal{H}^\ell \det V}} \left(\frac{\ell_p}{L}\right)^{11} e^{-\frac{1}{2} \frac{\ell_p}{L} \int \kappa_p^2 ds + \frac{L}{4\ell_p}} \\
 &= \Lambda(\Theta) \exp\left(-\frac{1}{2} \frac{\ell_p}{L} \int \kappa_p^2 ds + \frac{L}{4\ell_p}\right).
 \end{aligned}
 \tag{5}$$

Our numeric fit for the planar  $J$  factors as a function of the loop binding angle  $\Theta$  in eq. (7) is modified simply as

$$\begin{aligned}
 J(\Theta) &= [I_0(2\pi\Theta)e^{-2\pi\Theta}] \gamma(\Theta) \frac{1}{\ell_p^3} \left(\frac{\ell_p}{L}\right)^{11/2} \\
 &\times \exp\left(-\frac{\ell_p}{L} E(\Theta) + \frac{L}{4\ell_p}\right).
 \end{aligned}
 \tag{7}$$

Consequently, the additional factor  $\exp(-1/2) \simeq 1.65$  results in a minor upward shift of all curves in fig. 3. None of the remaining results, nor our conclusions are affected by this correction.

\*\*\*

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### REFERENCES

- [1] SHIMADA J. and YAMAKAWA H., *Macromolecules*, **17** (1984) 689.

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