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Correction

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Correction to "Ion Correlation-Induced Phase Separation in Polyelectrolyte Blends"

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In our recent letter "Ion Correlation-Induced Phase Separation in Polyelectrolyte Blends" (*ACS Macro Lett.* **2013**, *2*, 1042−1046), we miscalculated the phase diagram in Figure 3.[1] Instead of calculating the field contribution $f_q\delta_A(\ln(\rho_+) + 2\mu_{CORR})$ as described both in this work and in the original description of the method,[1,2] the phase diagram was incorrectly calculated using a field contribution $f_q\delta_A(\ln(\rho_+) + \mu_{CORR})$ (the factor of 2 is missing in front of the μ_{CORR}). This error does not change the conclusions of the affected paper; however, the phase boundaries in Figure 3 of the original article[1] are shifted, and the corrected phase diagram is shown in Figure 1:

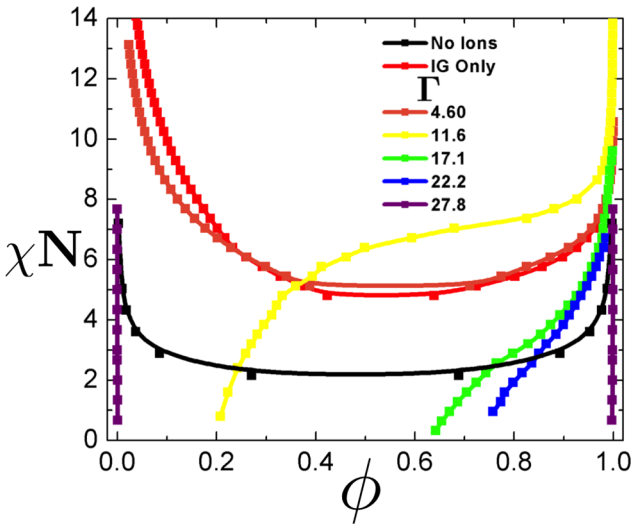

Figure 1. Phase diagram on the $\chi N-\phi_A$ plane from a number of charge-neutral polymer blends. The mean-field Flory−Huggins result for a symmetric blend (black) has a theoretically predicted $\chi_{critical}N = 2.0$. Above this binodal, there is a coexistence regime where phase separation occurs. The inclusion of *only* the ideal gas contribution of the counterions ($\mu_{CORR} = 0$) results in the red curve, which demonstrates strongly suppressed phase separation such that $\chi_{critical}N \approx 5-6$. Inclusion of correlations with a strength denoted by Γ enhances phase separation at large Γ in contrast to the ideal gas result. At large values of $\Gamma \geq 11.6$ phase separation is observed even at $\chi N = 0$ indicating that charge correlations alone can drive phase separation. $f_q = 0.1$ and $N = 40$, $a = 3.0$ Å for $\Gamma = 4.6$, 11.6, $a = 2.5$ Å for $\Gamma = 17.1$, 22.2, and $a = 2.0$ Å for $\Gamma = 27.8$.

REFERENCES

(1) Sing, C. E.; Zwanikken, J. W.; Olvera de la Cruz, M. *ACS Macro Lett.* **2013**, *2*, 1042−1046.

(2) Sing, C. E.; Zwanikken, J. W.; Olvera de la Cruz, M. *Phys. Rev. Lett.* **2013**, *111*, 168303.

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