Simulations of Morphology Evolution in Polymer Blends during Light Self-Trapping

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Figure S1. Phase diagrams for polymer blends with different N₂. Spinodal curves are plotted for different values of N₁ to indicate the rise and expansion of the curve over the course of photopolymerization. Black circle shows the temperature-composition coordinate ($\varphi = 0.5$) at room temperature (298 K). Colors of the spinodal curves presented values of N₁ of 1 (magenta), 10 (blue), 100 (green), and 1000 (red).

Results for Other Blend Conditions



Figure S2. Time series of the evolution polymer 2 (C₂). Parameters for data shown are: $C_1 = 0.5$, $\chi = 0.5$, $k_p = 1$, and $N_2 = 50$.



Figure S3. Spatial distribution of polymer 1 (C₁) mapped over rate constant (k_p) and blend interaction parameter (χ). N₂ = 1.



Figure S4. Spatial profile of the optical beam mapped over rate constant (k_p) and interaction parameter (χ). $N_2 = 1$.



Figure S5. Spatial distribution of polymer component (C₁) mapped over rate constant (k_p) and interaction parameter (χ). N₂ = 5.



Figure S 6 Spatial profile of the optical beam mapped over rate constant (k_p) and interaction parameter (χ). $N_2 = 5$.



Figure S7. Spatial profile of the optical beam mapped over rate constant (k_p) and interaction parameter (χ). $N_2 = 50$.



Figure S8. Spatial distribution of polymer component (C₁) mapped over rate constant (k_p) and blend interaction parameter (χ). N₂ = 500.



Figure S9. Spatial profile of the optical beam mapped over rate constant (k_p) and interaction parameter (χ). N₂ = 500.



Figure S10. Spatial distribution of polymer component (C₁) mapped over rate constant (k_p) and blend interaction parameter (χ). N₂ = 5000.



Figure S11. Spatial profile of the optical beam mapped over rate constant (k_p) and interaction parameter (χ). N₂ = 5000.



Figure S12. Spatial distribution of polymer component (C₁) mapped over N₂ and blend interaction parameter (χ). k_p = 1. ϕ = 0.75.



Figure S13. Spatial distribution of polymer component (C₁) mapped over N₂ and blend interaction parameter (χ). k_p = 1. ϕ = 0.25.



Figure S14. Spatial distribution of the optical beam for $k_p = 1$, $\phi = 0.25$, and $N_2 = 50$.



Figure S15. Spatial distribution of the optical beam for $k_p = 1$, $\phi = 0.75$, and $N_2 = 50$.



Figure S16. Spatial distribution of the optical beam and polymer 1, when the refractive index values of polymer 1 and 2 are switched. $k_p = 1$, $\phi = 0.25$, and $N_2 = 50$.