Electronic Supplementary Material (ESI) for Soft Matter.

Enhanced Microphase Separation of Thin Films of Low Molecular Weight Block Copolymer by the Addition of an Ionic Liquid

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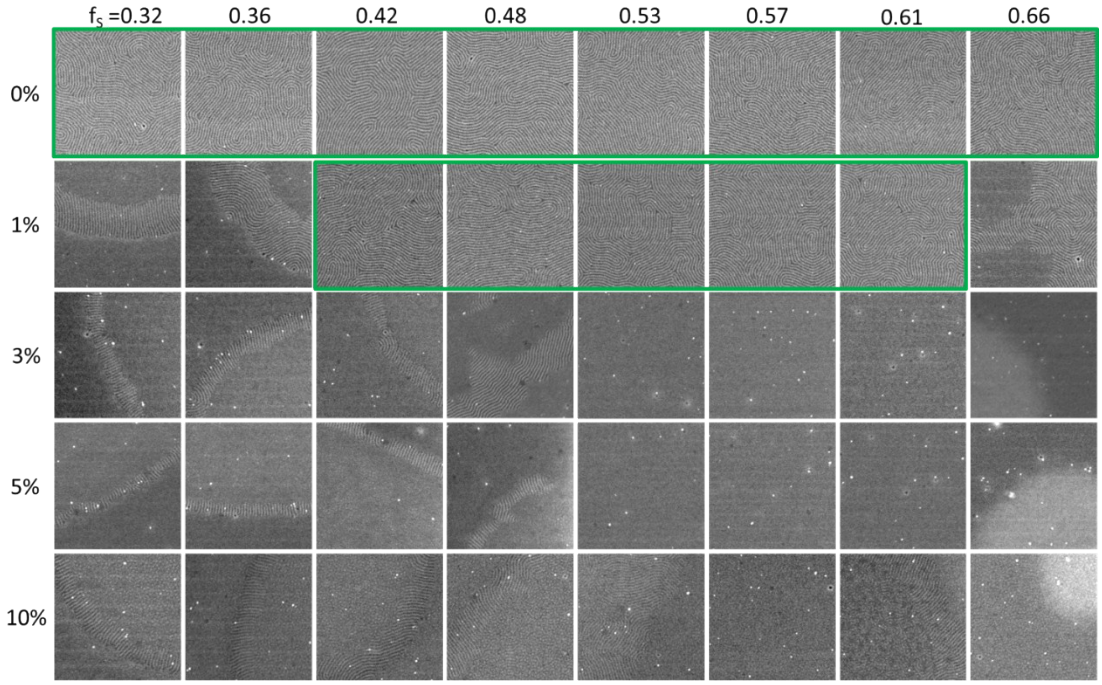
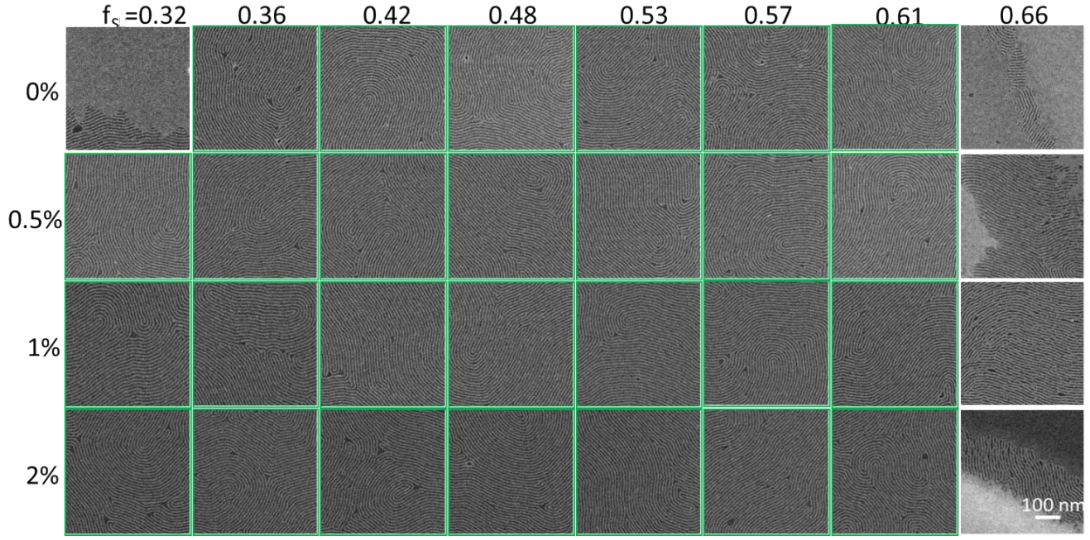
Supplementary Information

More SEM images of the fingerprint patterns of BCPs (VSV-47, SV-20, and VSV-26) blending with varied amount of IL are shown here.

(a)


f_s =0.32
0.36
0.42
0.48
0.53
0.57
0.61
0.66
0%
1%
3%
5%
10%

(b)


f_s =0.32
0.36
0.42
0.48
0.53
0.57
0.61
0.66
0%
0.5%
1%
2%
100 nm

(c)

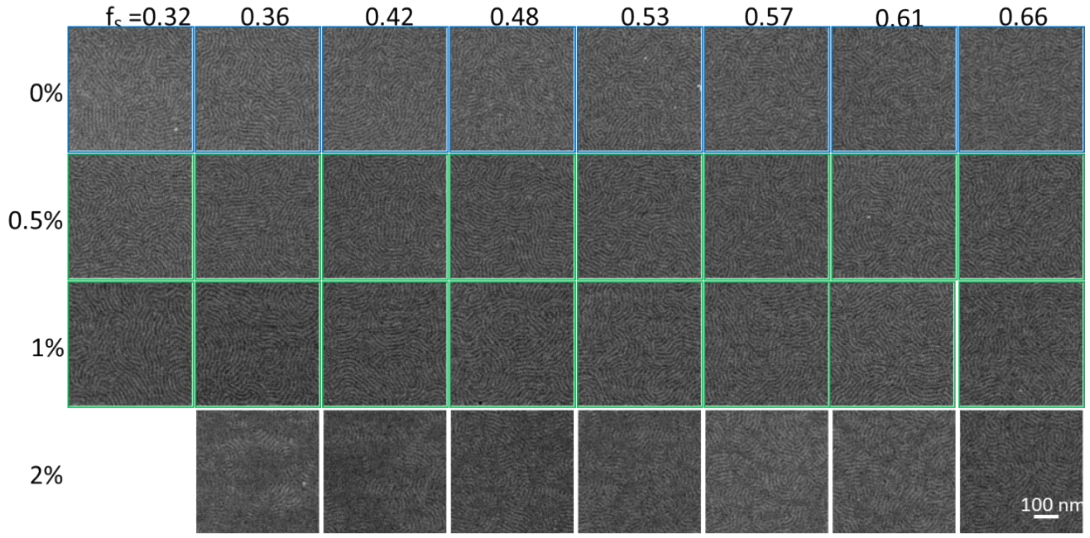


Figure S1. Top view SEM images after sequential infiltration synthesis (SIS) of BCPs fingerprint pattern with different weight ratios of [HMIM][PF6]. Φ_{IL} is reported as weight fraction, and f_S (PS mole ratio) shown is the composition in the P(S-*r*-2VP) random brush. (a) VSV-47 (b) SV-20 (c) VSV-26.

More SEM images of VSV-26 blending with different weight ratio IL after sequential infiltration synthesis (SIS) and O_2 plasma etching are shown below.

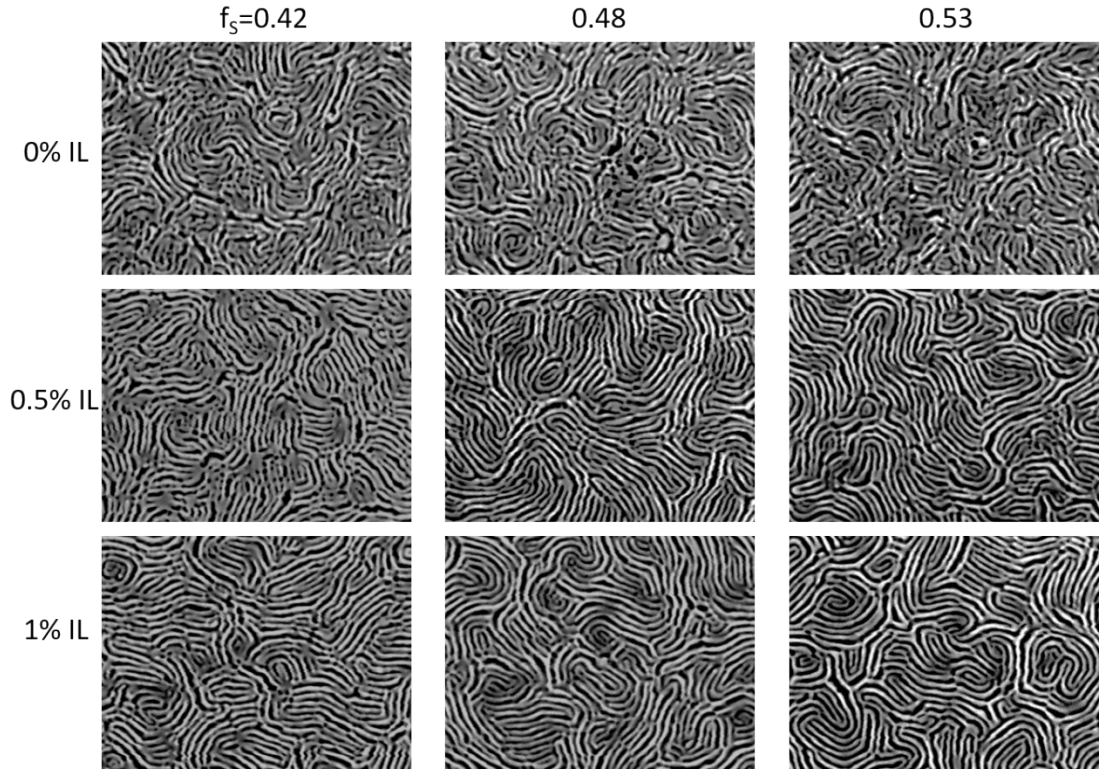


Figure S2. Top view SEM images of fingerprint pattern of VSV-26 blending with different weight ratio [HMIM][PF6] after sequential infiltration synthesis (SIS) and O_2 plasma etching annealed in acetone for 1 h, when f_S (PS mole ratio) are 0.42, 0.48, 0.53, respectively.