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Ettelaie, R, Murray, BS and Liu, S (2019) On the Origin of Seemingly Non-Surface Active Particles Partitioning between Phase Separated Solutions of Incompatible Non-Adsorbing Polymers and Their Adsorption at the Phase Boundary. Langmuir: the ACS journal of surfaces and colloids, 35 (29). pp. 9493-9503. ISSN: 0743-7463

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Fig 1.

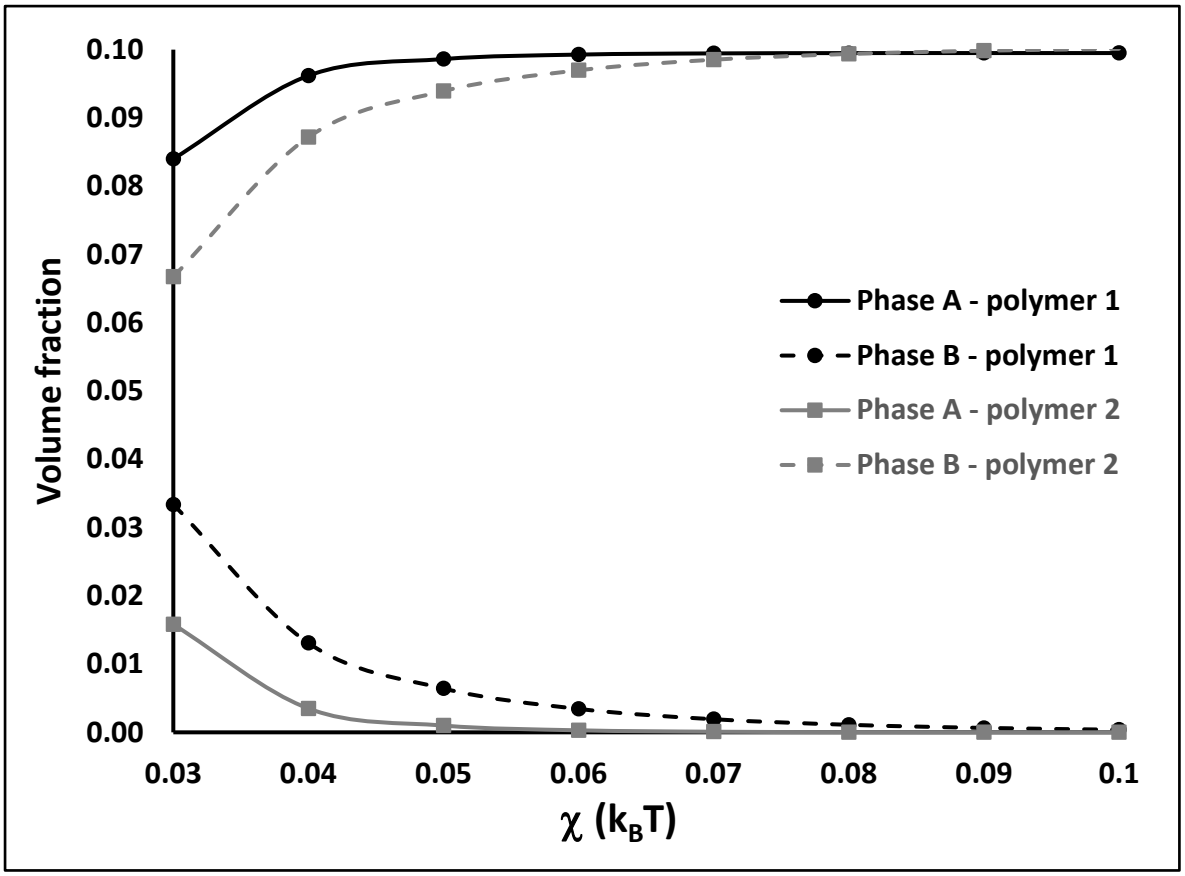

0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Volume fraction
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
χ (k_BT)
Phase A - polymer 1
Phase B - polymer 1
Phase A - polymer 2
Phase B - polymer 2

Fig 2.

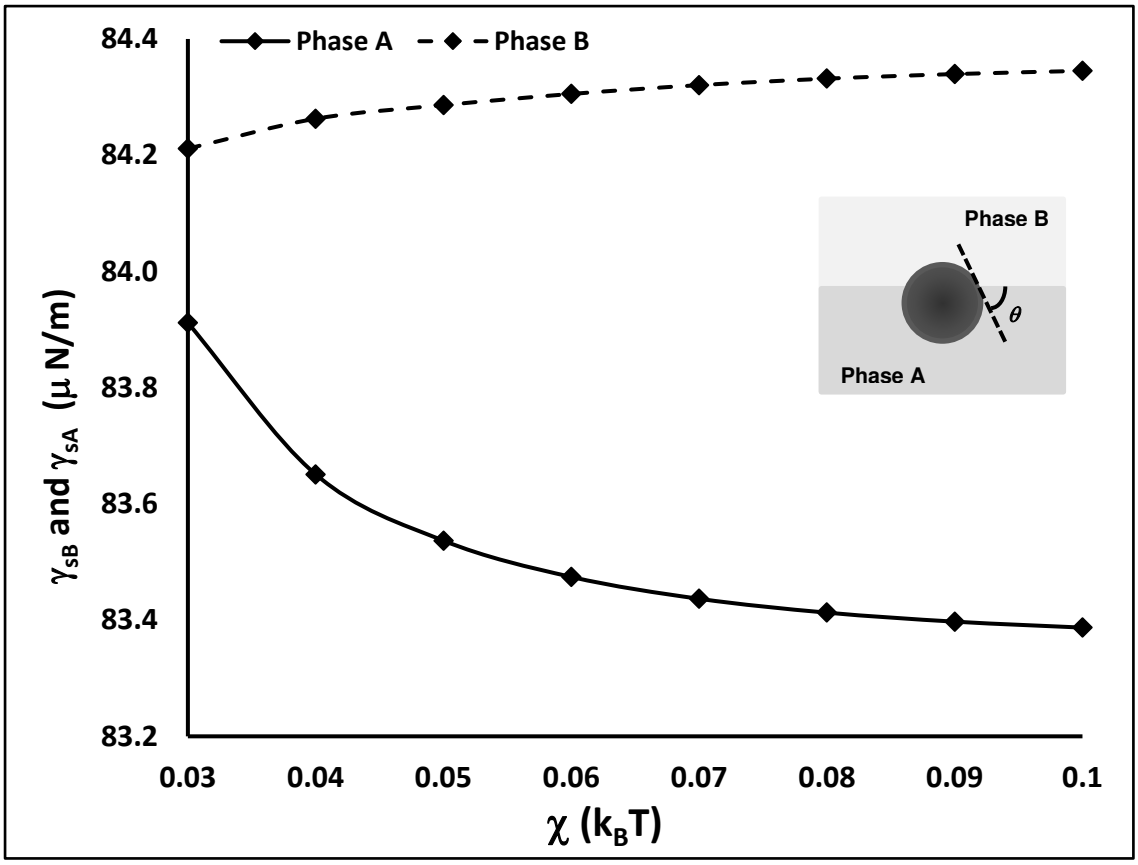

Phase A
Phase B
84.4
84.2
84.0
83.8
83.6
83.4
83.2
γ_{sB} and γ_{sA} (μ N/m)
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.1
χ (k_BT)
Phase B
θ
Phase A

Fig 3 (a).

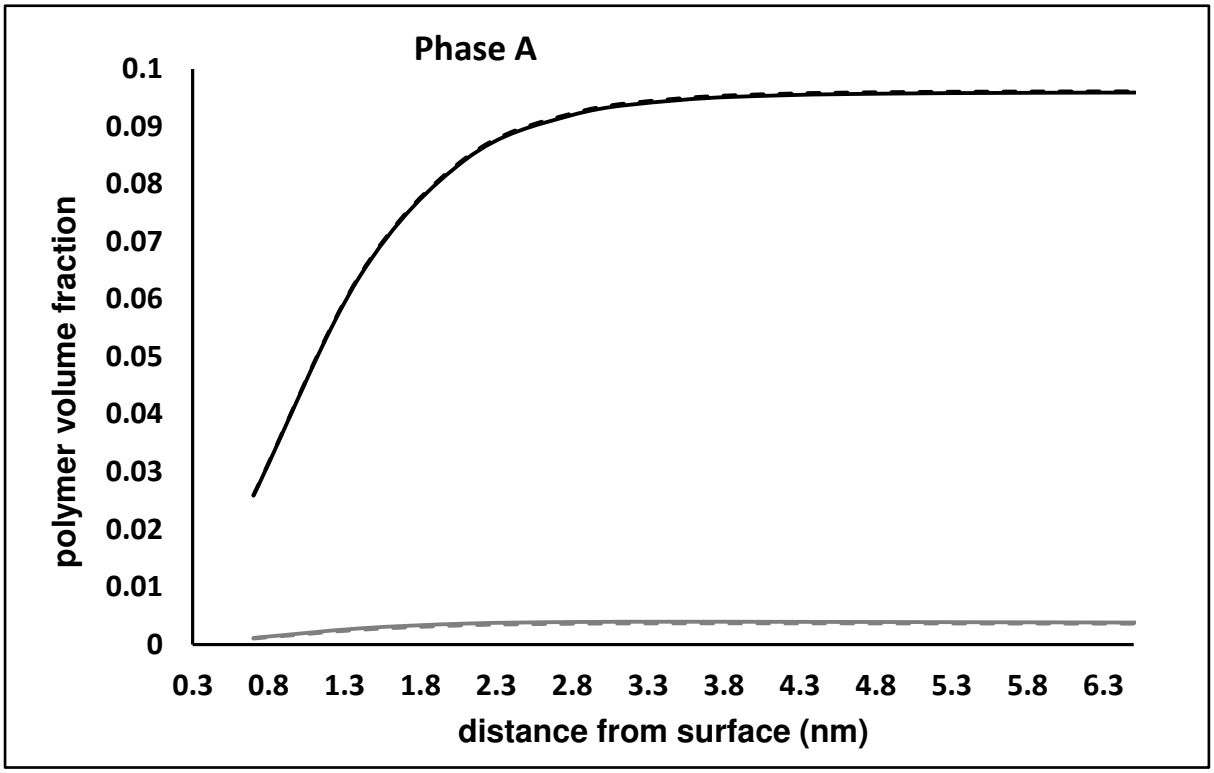

Phase A
polymer volume fraction
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.3
0.8
1.3
1.8
2.3
2.8
3.3
3.8
4.3
4.8
5.3
5.8
6.3
distance from surface (nm)

Fig 3 (b).

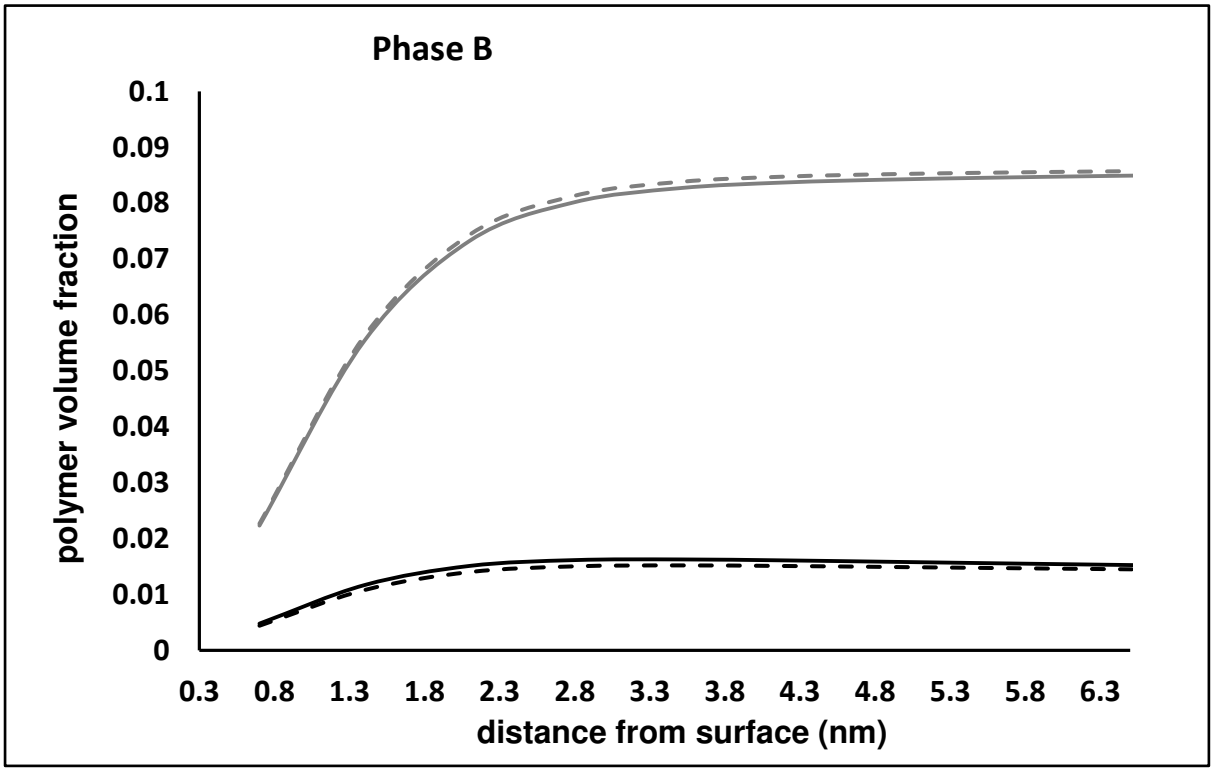

Phase B
polymer volume fraction
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0.3
0.8
1.3
1.8
2.3
2.8
3.3
3.8
4.3
4.8
5.3
5.8
6.3
distance from surface (nm)

Fig 4.

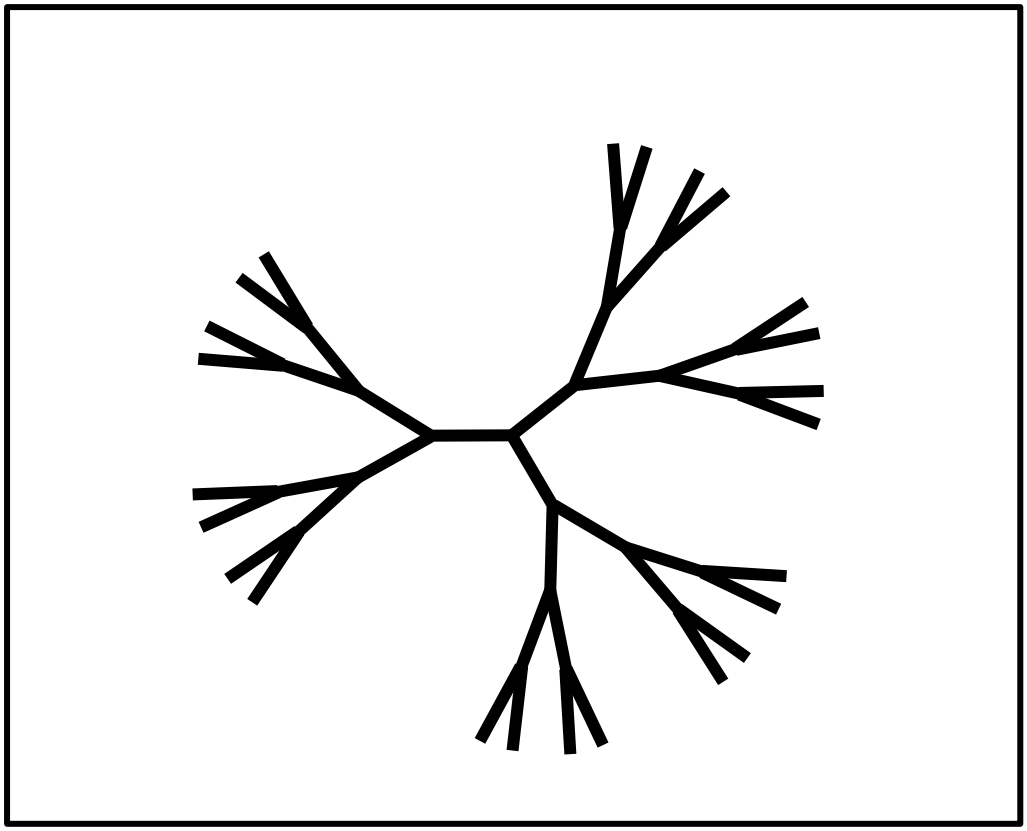


Fig 5.

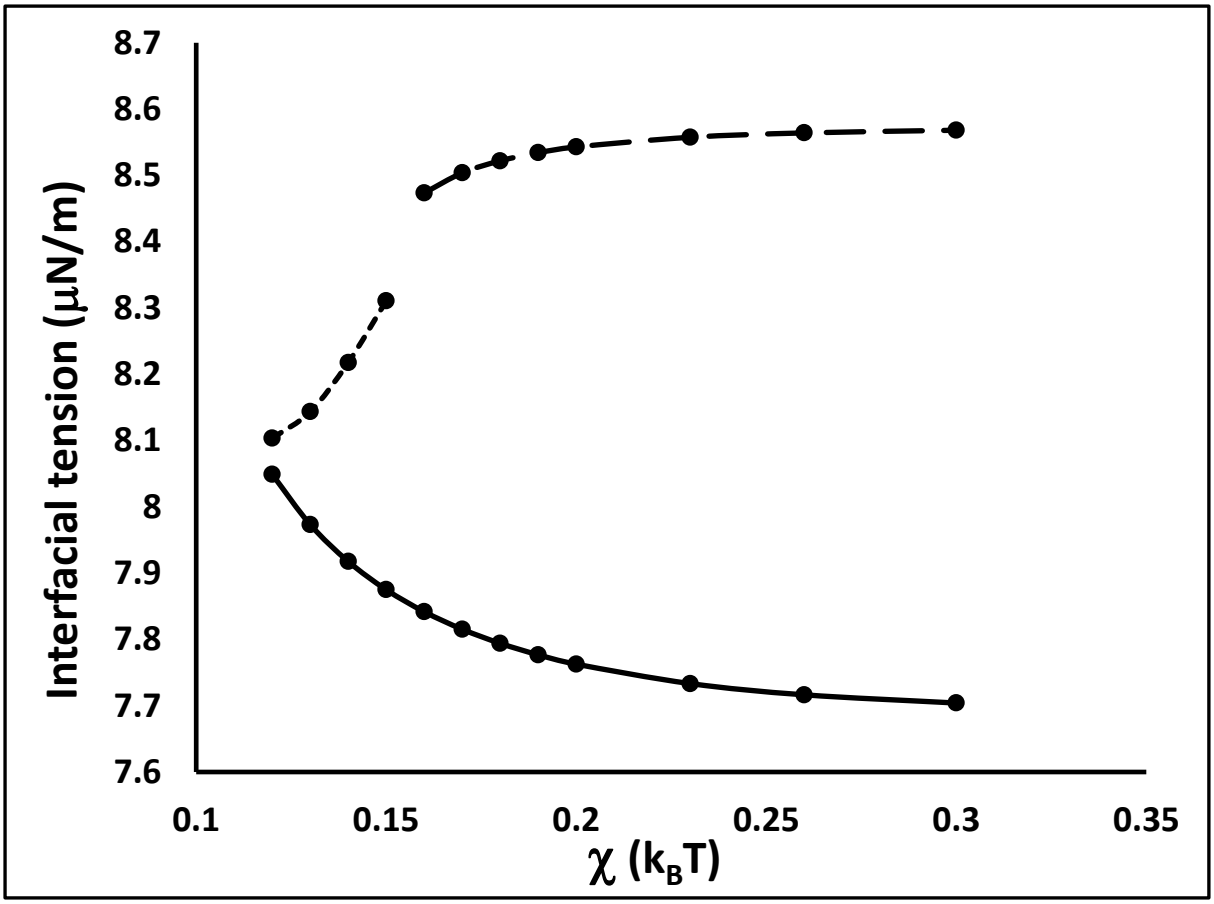

Interfacial tension (μN/m)
8.7
8.6
8.5
8.4
8.3
8.2
8.1
8
7.9
7.8
7.7
7.6
0.1
0.15
0.2
0.25
0.3
0.35
χ (k_BT)

Fig 6.

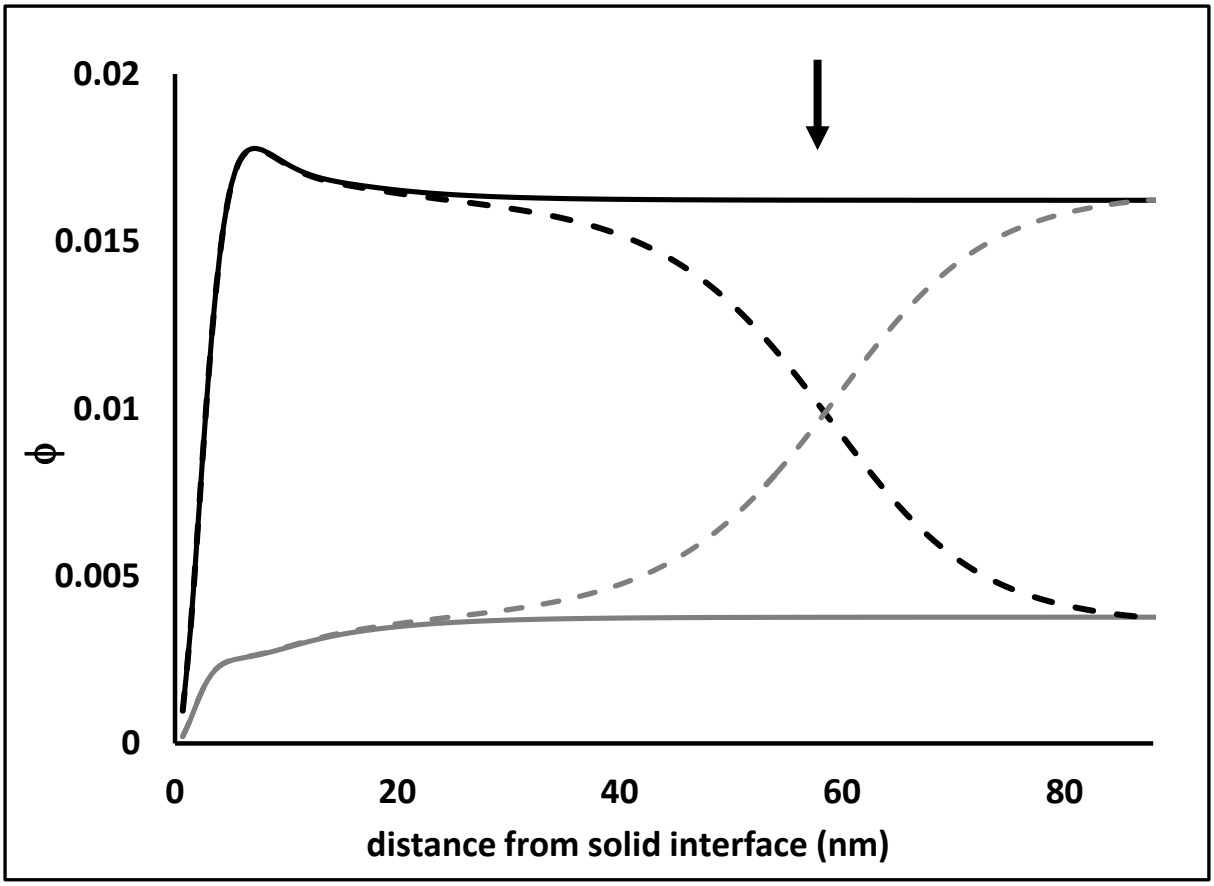
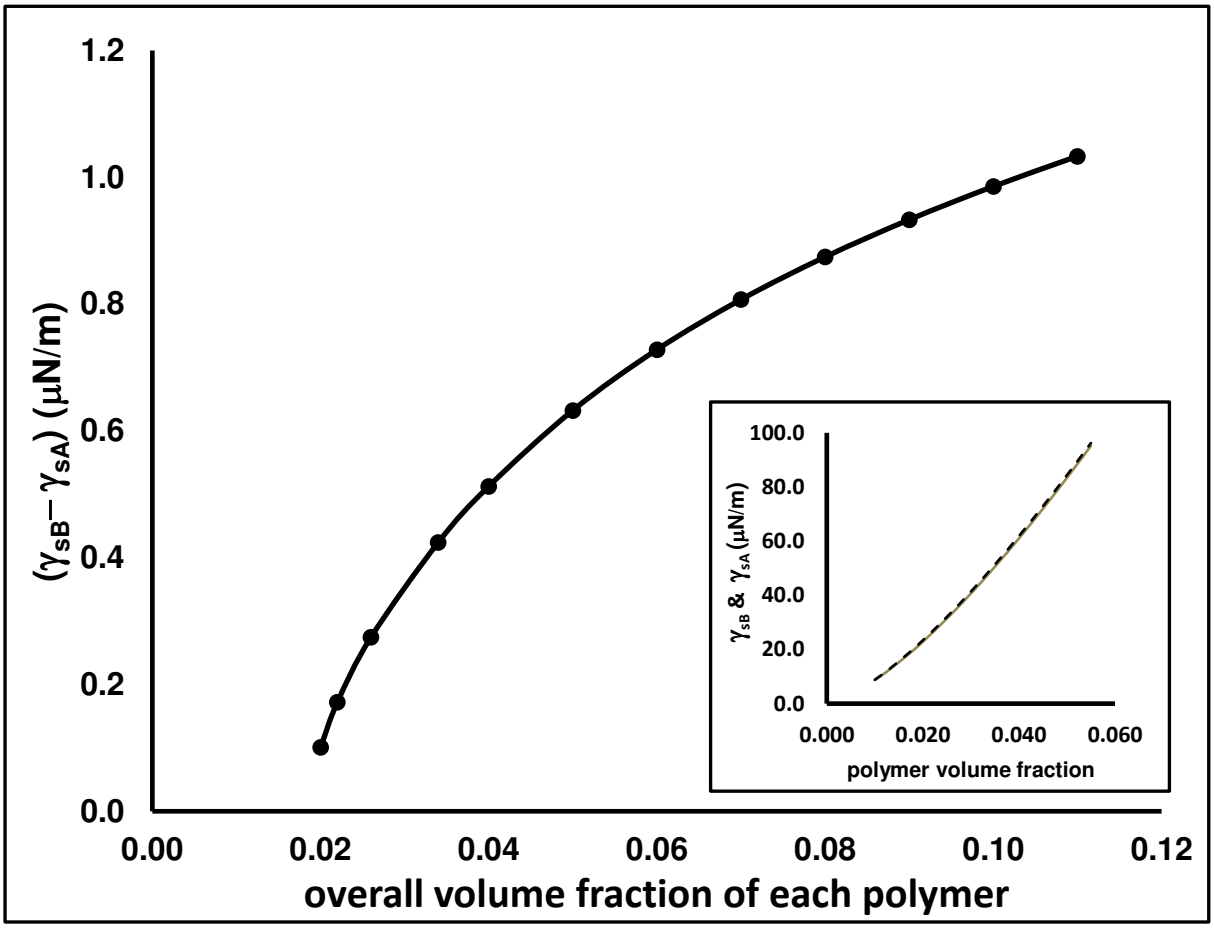
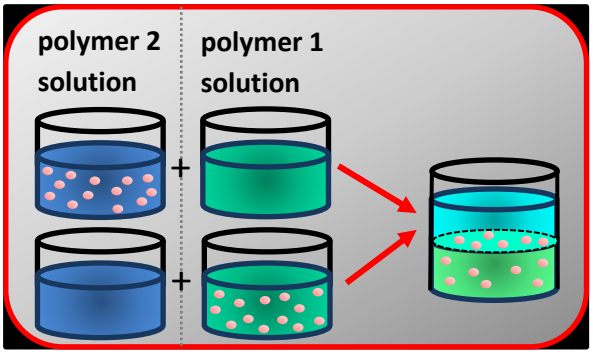

0.02
0.015
0.01
ϕ
0.005
0
0
20
40
60
80
distance from solid interface (nm)

Fig 7.


1.2
1.0
0.8
0.6
0.4
0.2
0.0
$(\gamma_{sB} - \gamma_{sA})$ (μN/m)
0.00
0.02
0.04
0.06
0.08
0.10
0.12
overall volume fraction of each polymer
100.0
80.0
60.0
40.0
20.0
0.0
γ_{sB} & γ_{sA} (μN/m)
0.000
0.020
0.040
0.060
polymer volume fraction

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