

Structure of Micelles Formed by Highly Asymmetric Polystyrene-*b*-Polydimethylsiloxane and Polystyrene-*b*- Poly[5-(N,N-diethylamino)isoprene] Diblock Copolymers

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1. Physical-chemical properties of block copolymers, solvents and their respective solutions.

Table S1. Refractive index increment (dn/dc) for block copolymer systems investigated in this work.

Entry	Copolymer	dn/dc ^a (ml/g)
Solvent = DMAc		
1-Ac	PS ₁₇₁ - <i>b</i> -PDMS ₆	0.147
2-Ac	PS ₁₁₇ - <i>b</i> -PDMS ₄₄	0.119
3-Ac	PS ₈₂ - <i>b</i> -PDMS ₆₂	0.101
Solvent = DMF		
1-F	PS ₁₇₁ - <i>b</i> -PDMS ₆	0.160
2-F	PS ₁₁₇ - <i>b</i> -PDMS ₄₄	0.129
3-F	PS ₈₂ - <i>b</i> -PDMS ₆₂	0.107
4-F	PS ₁₄₇ - <i>b</i> -PAI ₆	
5-F	PS ₁₃₂ - <i>b</i> -PAI ₈	0.139
6-F	PS ₁₂₆ - <i>b</i> -PAI ₁₀	0.136

^a Determined using a classical Brice-Phoenix differential refractometer.

ND = Not determined

Table S2. Solubility parameters of homopolymers and solvents.

Compound	δ (MPa) ^{1/2}
Cyclohexane	16.8
DMAc	22.1
DMF	24.7
PS	18.6
PDMS	15.1
PAI	Not available
PI	15.8

Table S3. Parameters used to determine β_{core} and β_{chain} .

	d_x^a (g/cm ³)	V_x (10 ⁻²² cm ³)	σ_x (10 ¹⁰ cm ⁻²)	M_x (g/mol)	chemical composition	$\sum n_i z_i$
PDMS	0.97	1.27	8.87	74.1	C ₂ H ₆ SiO	40
PAI	0.89	2.59	8.46	139.0	C ₉ H ₁₇ N	78
PS	1.05	1.65	9.57	104.1	C ₈ H ₈	56
DMF	0.944	-	8.76	73.09	C ₃ H ₇ NO	40
DMAc	0.94	-	8.78	87.12	C ₄ H ₉ NO	48

^aValues taken from Xu, R.; Winnik, M. A.; Hallet, F. R.; Riess, G.; Croucher, M. D. *Macromolecules* **1991**, 24, 87, except for PAI which was determined experimentally.