Electronic Supplementary Material (ESI) for Soft Matter.

Supplementary Information

Sphere to rod transitions in self assembled systems probed using direct force measurement

Table 2 Parameters for fitted equations for (80/0) (80/12) (80/16) and (80/24)

	(80/0)	**(80/12)**	**(80/16)**	**(80/24)**
Surface Tension (mN/m)	13	11	11	13
Contact angle drop 1(°)	139	131	131	132
Contact angle drop 2(°)	135	135	135	135
Radius 1 (µm)	33	38	38	37
Radius 2 (µm)	33	41	40	35
Scaling factor (-)	0.2	0.2	0.4	0.1
ε[a]	8.8e-9	7e-9	8e-9	5e-9
λ	13.3e-9	18e-9	16e-9	90e-9
A	21.9e-6	5e-6	3.25e-6	50e-6
φ	-2.13	1.63	1.2	1.45
ε_2	-	2e-9	5.6e-9	-
λ_2	-	250e-9	350e-9	-
A_2	-	230e-6	52e-6	-
φ_2	-	1.56	1.58	-
c	0	0	0	0

[a] All parameters for fitting equation entered in SI units. F is in Newtons, R is in metres, and h is in metres.

$$\frac{F}{R} = 2\pi A_1 exp\left(\frac{-h}{\epsilon_1}\right)\cos\left(\frac{2\pi h}{\lambda_1} + \phi_1\right) + 2\pi A_2 exp\left(\frac{-h}{\epsilon_2}\right)\cos\left(\frac{2\pi h}{\lambda_2} + \phi_2\right) + c$$