

INVESTIGATING THE SPONTANEOUS FORMATION OF SDS MICELLE IN AQUEOUS SOLUTION USING A COARSE-GRAINED FORCE FIELD

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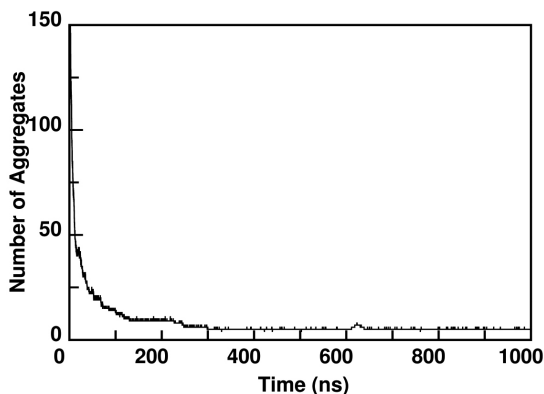


Figure 1S. Total number of SDS aggregates during the simulation (including monomers and premicellar aggregates)

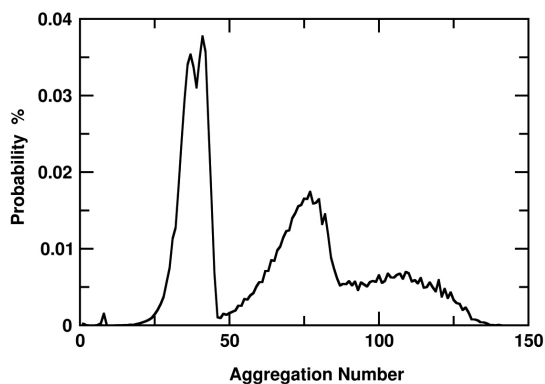


Figure 2S. Cluster size probability distribution

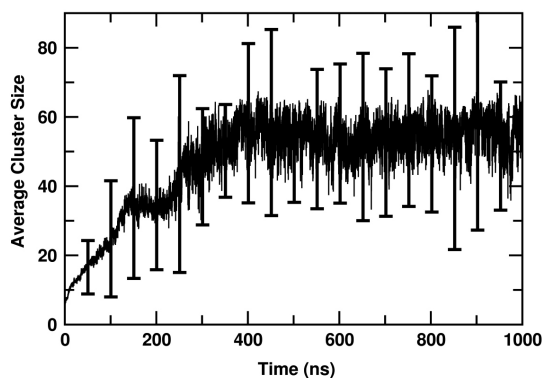


Figure 3S. Average aggregation number of the micellar aggregates

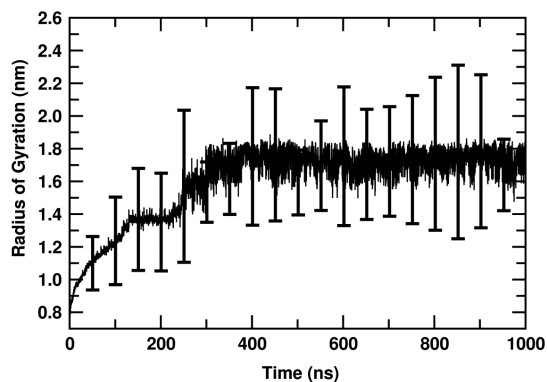


Figure 4S. Average radius of gyration of the micellar aggregates

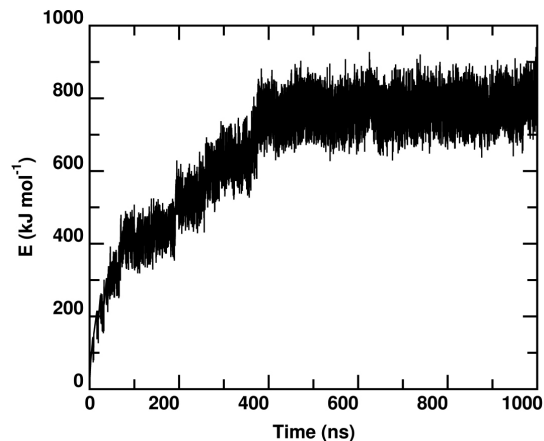


Figure 5S. Coulomb energy between Na⁺ cation from 0.0 up to 1000 ns simulation

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Table 1S. Micellar parameters: model, SDS molar concentration [SDS], average aggregation number $\langle N \rangle$ and Radius of SDS micelle $\langle R \rangle$

Ref. Year	Method	Model	[SDS] (mM)	$\langle N \rangle$	$\langle R \rangle$ /nm
[43] 1981	SANS	Polydisperse spheres	40		2.17
[45] 1986	SANS	Polydisperse spheres	65	90	2.51
[46] 1999	SANS	Polydisperse spheres	-	48	2.00
[48] 2002	SAXS	Ellipsoid	40	-	2.18
[44] 2005	SANS	Ellipsoid biaxial	50	75	2.23
[42] 2007	SANS SAXS	Ellipsoid triaxial	300	91	2.20
[47] 2009	SANS SAXS	Ellipsoid triaxial core/shell	50	67	2.12
[47] 2009	SANS SAXS	Ellipsoid oblate homogeneous	50	77	2.12
[36] 1995	A.A MD	Spheres	700	60	2.21
[34] 2002	A.A MD	Spheres	400	60	2.20
[26] 2005	AA/CG MD	Spheres	1100	60	2.00 ± 0.01
[37] 2009	CG MD	Spheres	100	60	2.03 ± 0.03
This work	CG MD	Spheres	55	41 68 and 95	2.23 ± 0.08