Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Information

Structural study of hybrid silica bilayers from "bola-amphiphile" organosilane precursors: catalytic and thermal effects.

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bola-amphiphile organosilane / bilayers/ functionalized silica / densification mechanism / in situ SAXS experiments.

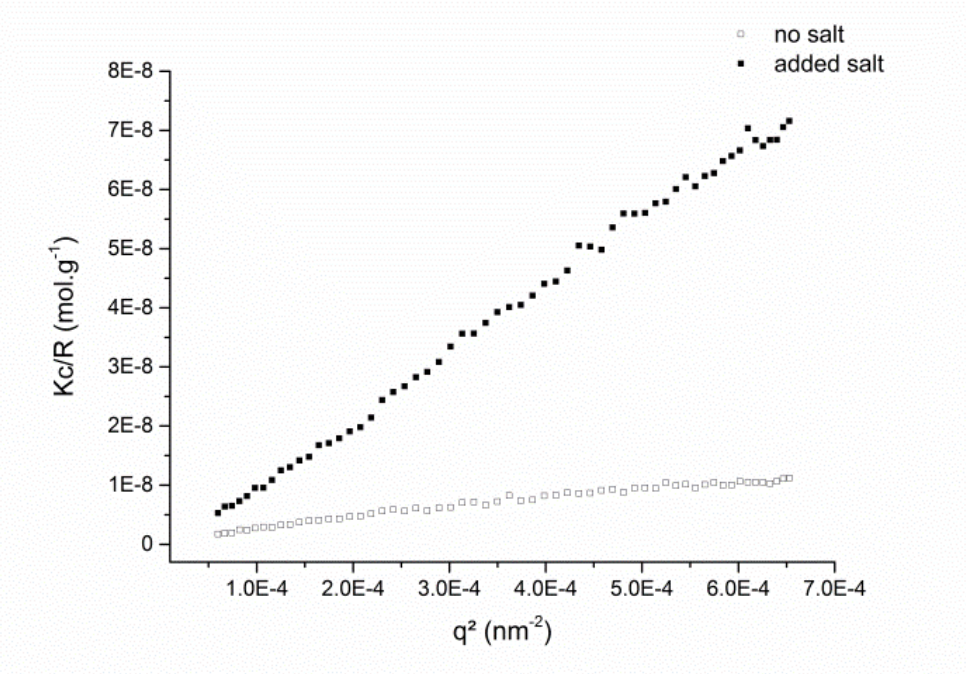


Figure SI 1: SLS pattern (Kc/R=f(q²)) of S1-A solutions without any addition of salt (white squares) and with sodium salt (black squares).

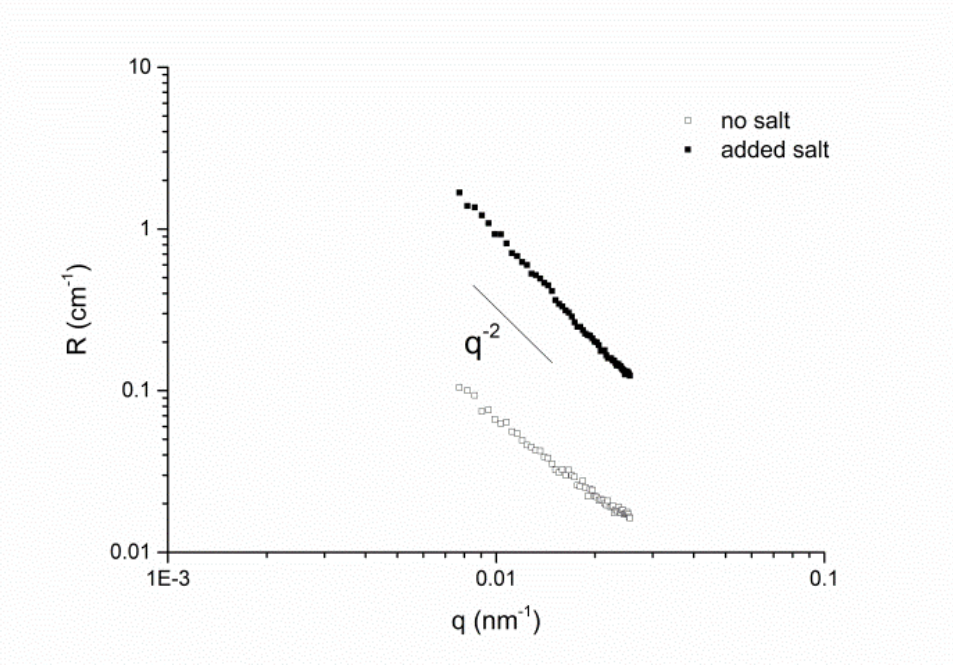


Figure SI 2: SLS patterns (R=f(q)) of S1-A solution without any addition of salt (white squares) and with sodium salt (black squares).

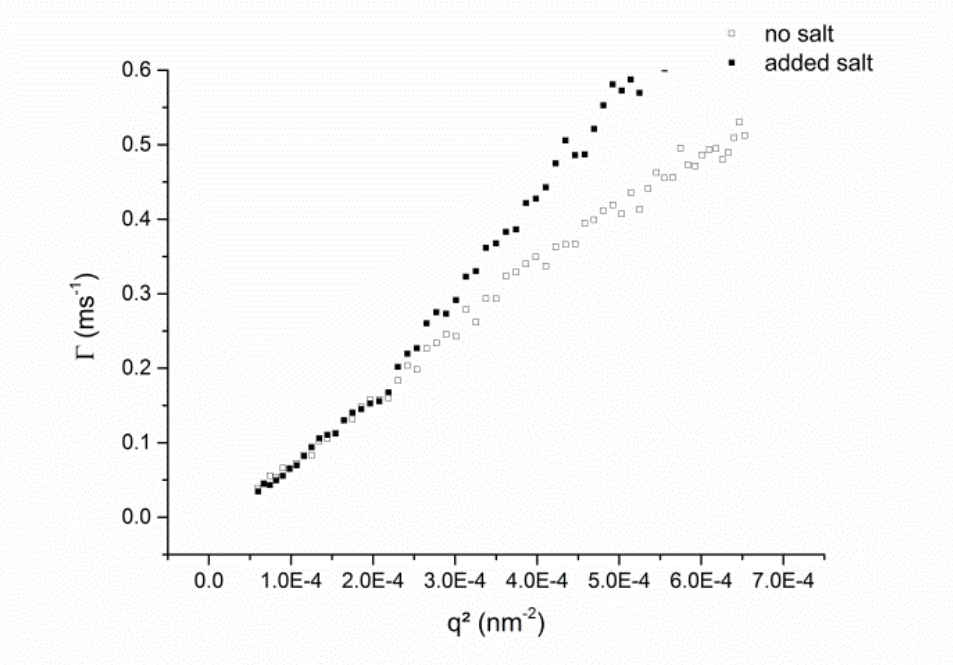


Figure SI 3: DLS patterns ($\Gamma=f(q^2)$) of S1-A solution without any addition of salt (white squares) and with sodium salt (black squares).

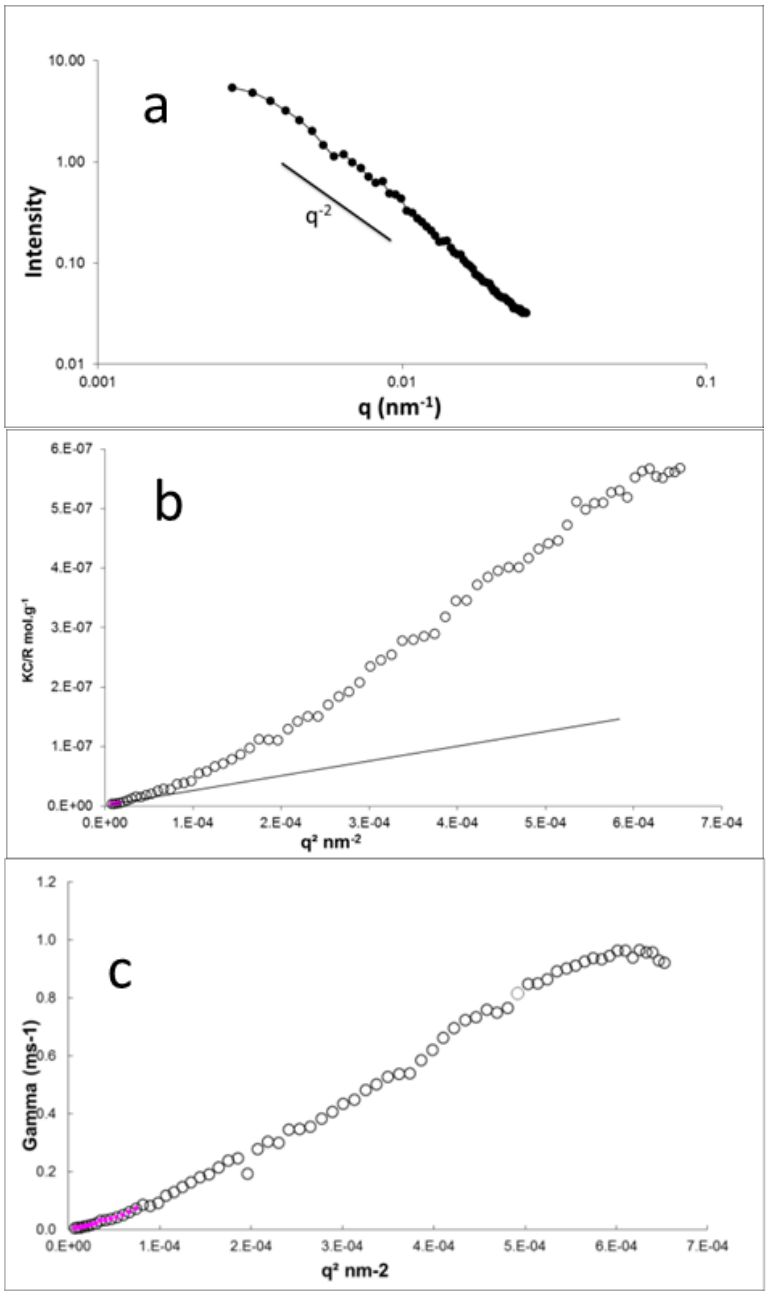


Figure SI 4: SLS patterns of M2-A expressed as a) R=f(q), b) (Kc/R=f(q²)) and c) DLS pattern (Γ=f(q²)) of S2-A.

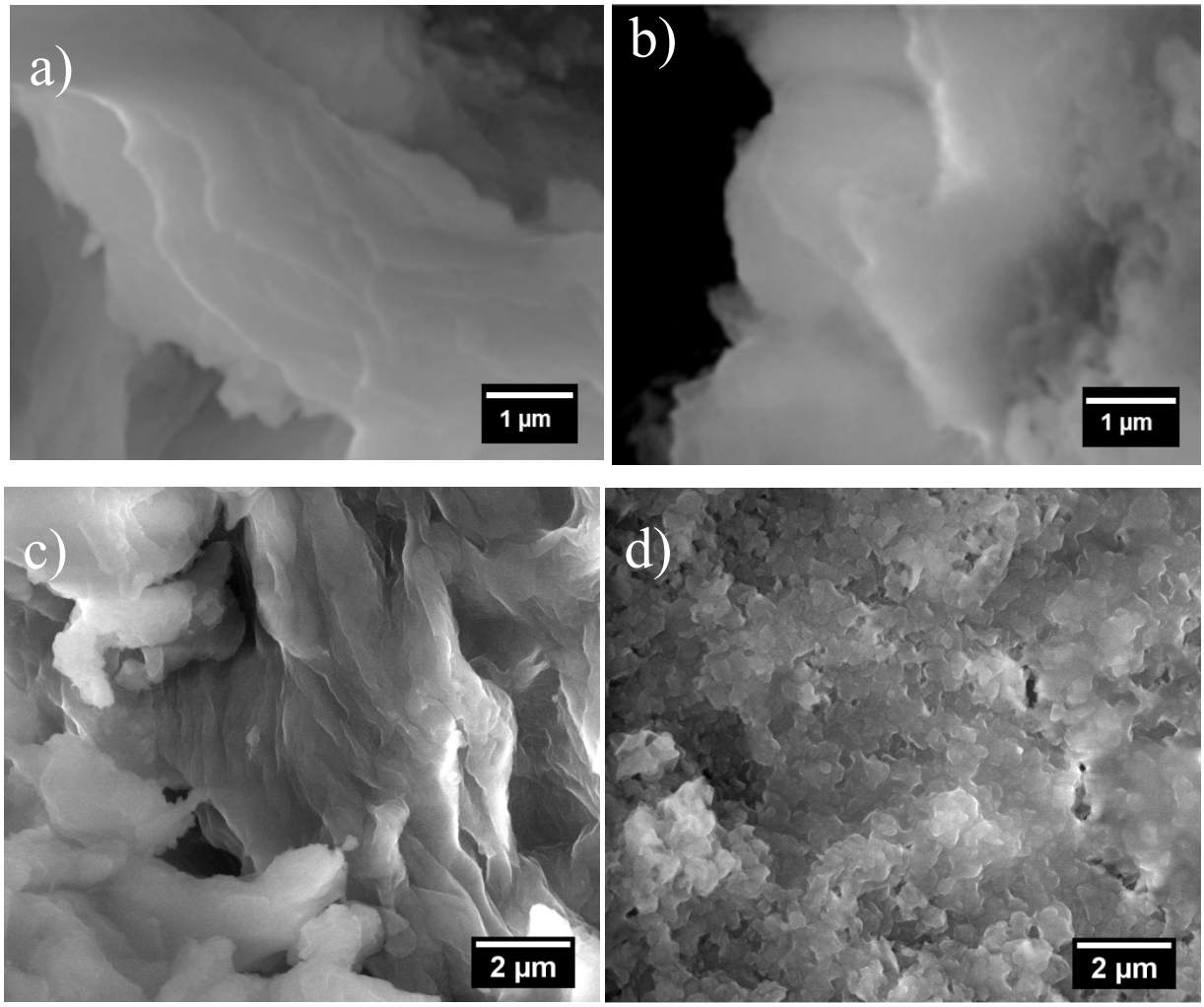
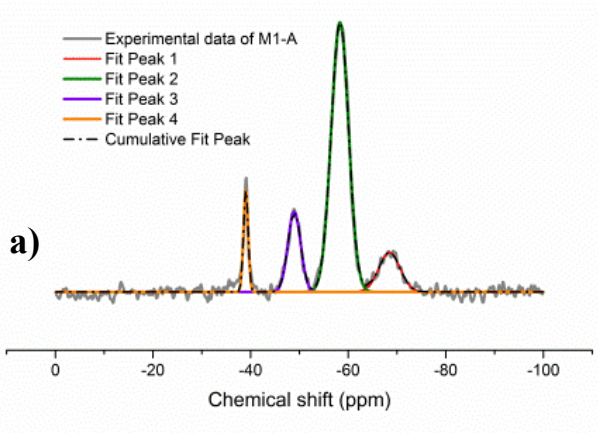
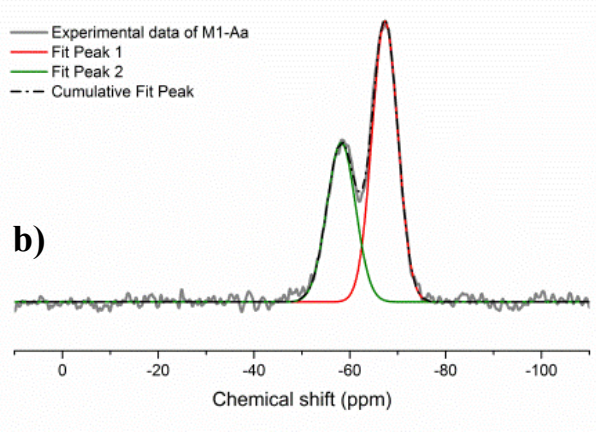
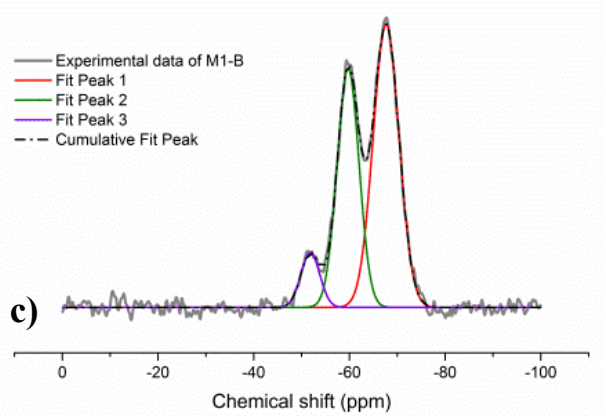


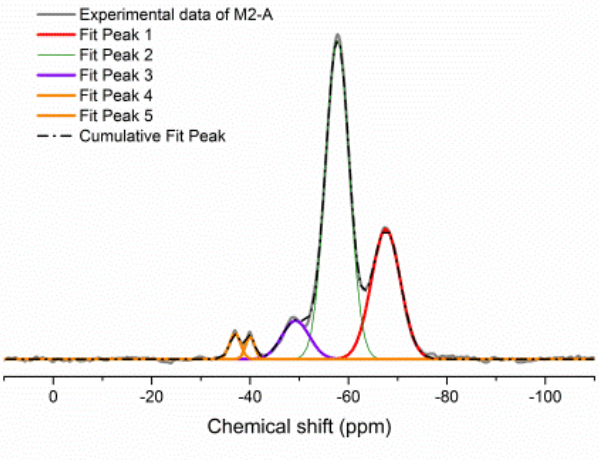
Figure SI 5: SEM images of **M1-A** (a) and **M1-B** (b) and **M2-A** (c) and **M2-B** (d).


Experimental data of M1-A
Fit Peak 1
Fit Peak 2
Fit Peak 3
Fit Peak 4
Cumulative Fit Peak
a)
0
-20
-40
-60
-80
-100
Chemical shift (ppm)


Experimental data of M1-Aa
Fit Peak 1
Fit Peak 2
Cumulative Fit Peak
b)
0
-20
-40
-60
-80
-100
Chemical shift (ppm)


Experimental data of M1-B
Fit Peak 1
Fit Peak 2
Fit Peak 3
Cumulative Fit Peak
c)
0
-20
-40
-60
-80
-100
Chemical shift (ppm)

d)


Experimental data of M2-A
Fit Peak 1
Fit Peak 2
Fit Peak 3
Fit Peak 4
Fit Peak 5
Cumulative Fit Peak
0
-20
-40
-60
-80
-100
Chemical shift (ppm)

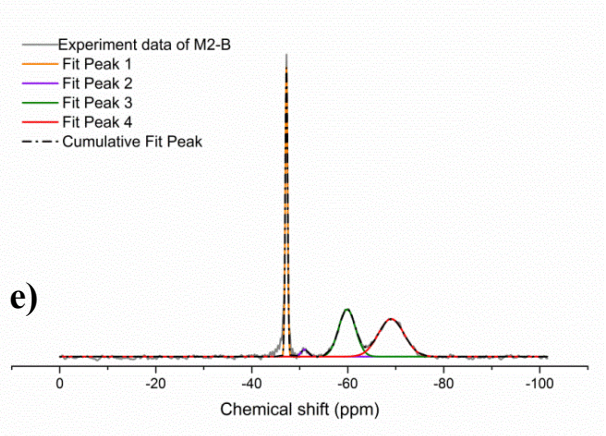

Experiment data of M2-B
Fit Peak 1
Fit Peak 2
Fit Peak 3
Fit Peak 4
Cumulative Fit Peak
e)
0
-20
-40
-60
-80
-100
Chemical shift (ppm)

Figure SI 6: ^{29}Si NMR spectra and the corresponding fit peaks of **M1-A** (a), **M1-Aa** (b), **M1-b** (c) and **M2-A** (d) and **M2-B** (e).