

Supporting Information

Cation-Induced Fibrillation of Microbial Glycolipid Biosurfactant Probed by Ion-Resolved *In Situ* SAXS

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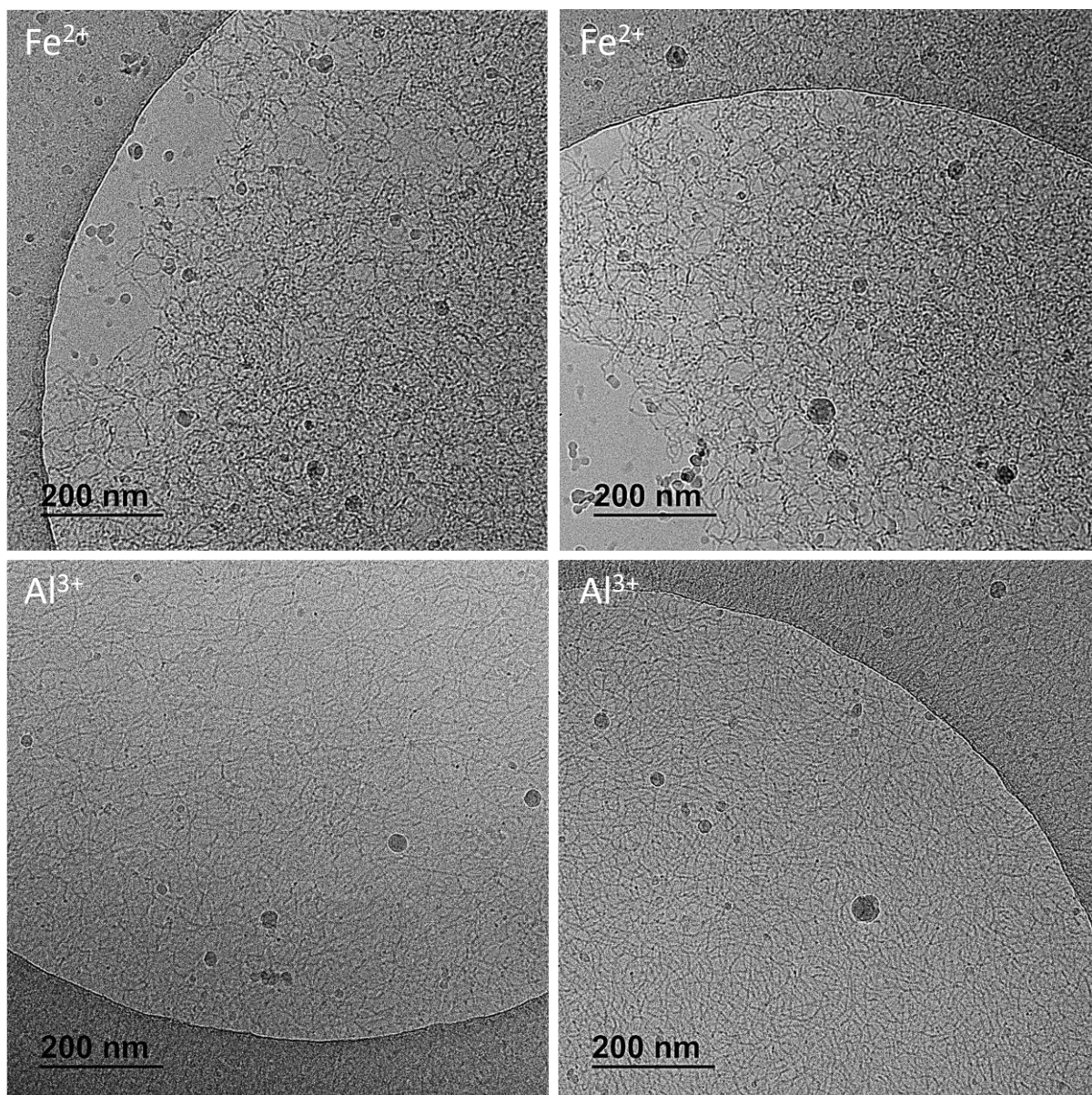


Figure S 1 – Additional cryo TEM images of a 0.5 wt% G-C18:1 solution (pH 8) containing Fe²⁺ and Al³⁺ metal ions at a molecular ratio [Fe²⁺]/[G-C18:1] = 1.4 and [Al³⁺]/[G-C18:1] = 0.34. Both samples are constituted of a dense and extensive network of wormlike micelles. Spheroidal aggregates are, on the contrary, typical artefacts due to due cryo-fixation (Friedrich *et al.* Imaging of Self-Assembled Structures: Interpretation of TEM and Cryo-TEM Images. *Angew. Chemie - Int. Ed.* 2010, 49, 7850).

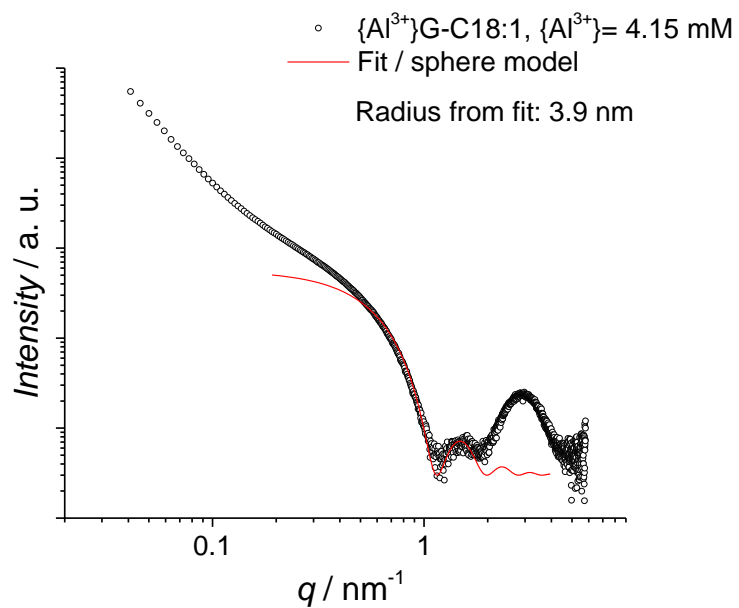


Figure S 2– Fit of a typical SAXS profile corresponding to the {Al³⁺}G-C18:1 system studied in Figure 6 of the main text. The fit is performed using a simple sphere model in the software Sasview 3.1.2.

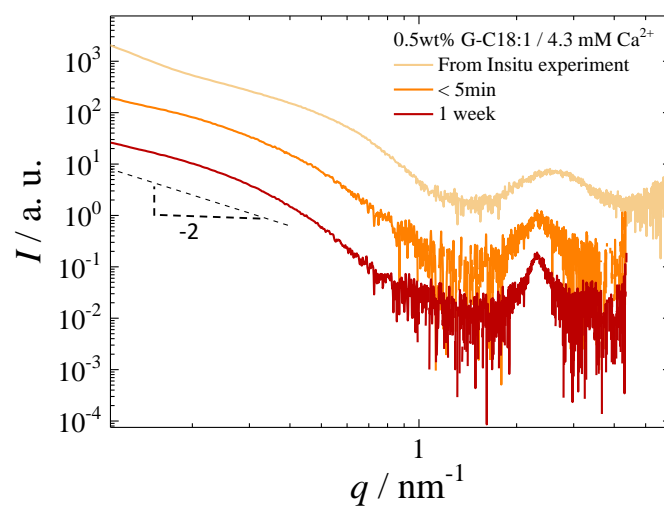


Figure S 3 – SAXS spectra of $\{\text{Ca}^{2+}\}$ G-C18:1 solution at a molar ratio 0.4 ($C_{\text{G-C18:1}} = 0.5 \text{ wt\%}$) at different preparation time marked in the caption.