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A pressure-jump study on the interaction of osmolytes and crowders with cubic monoolein structures

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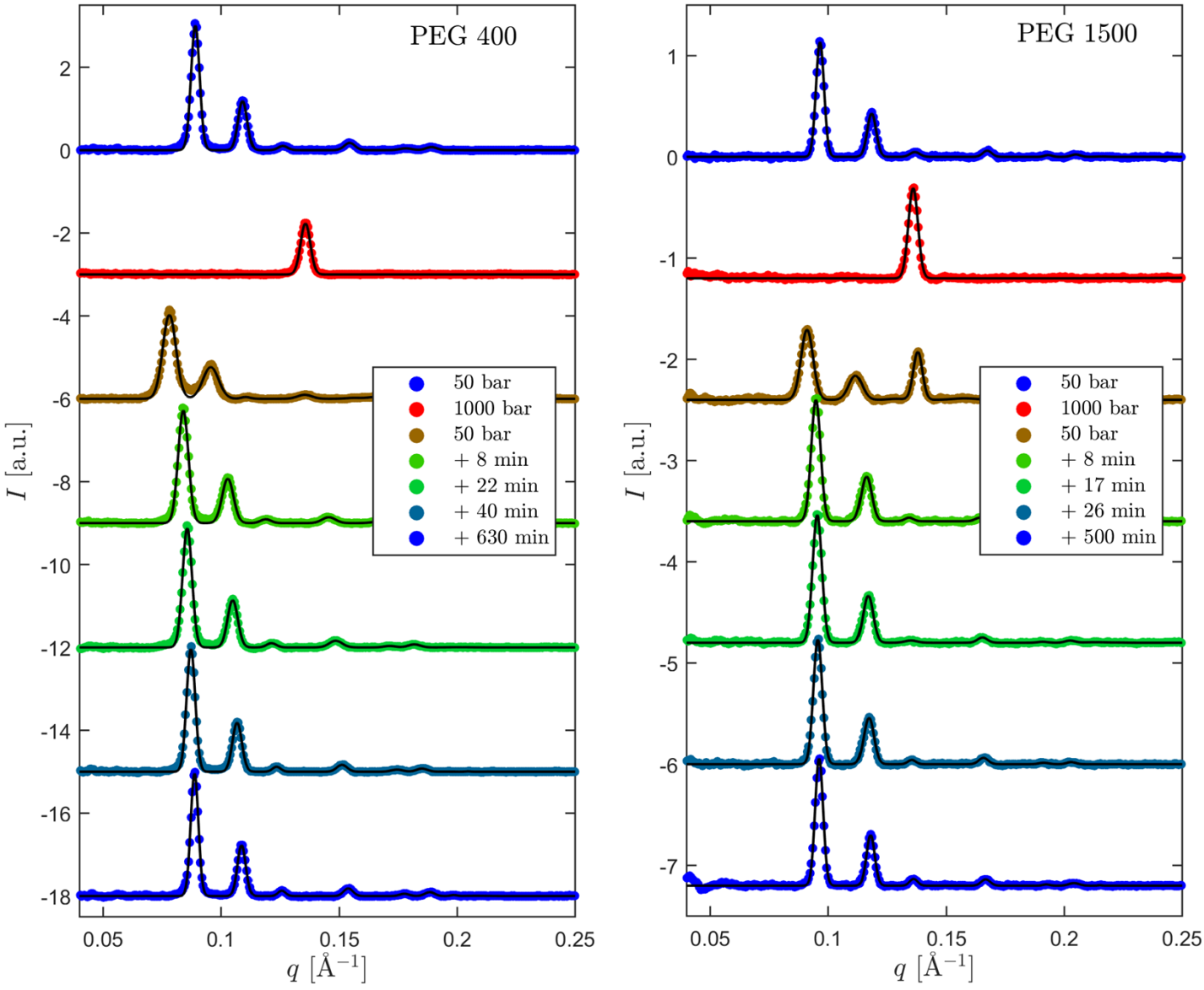
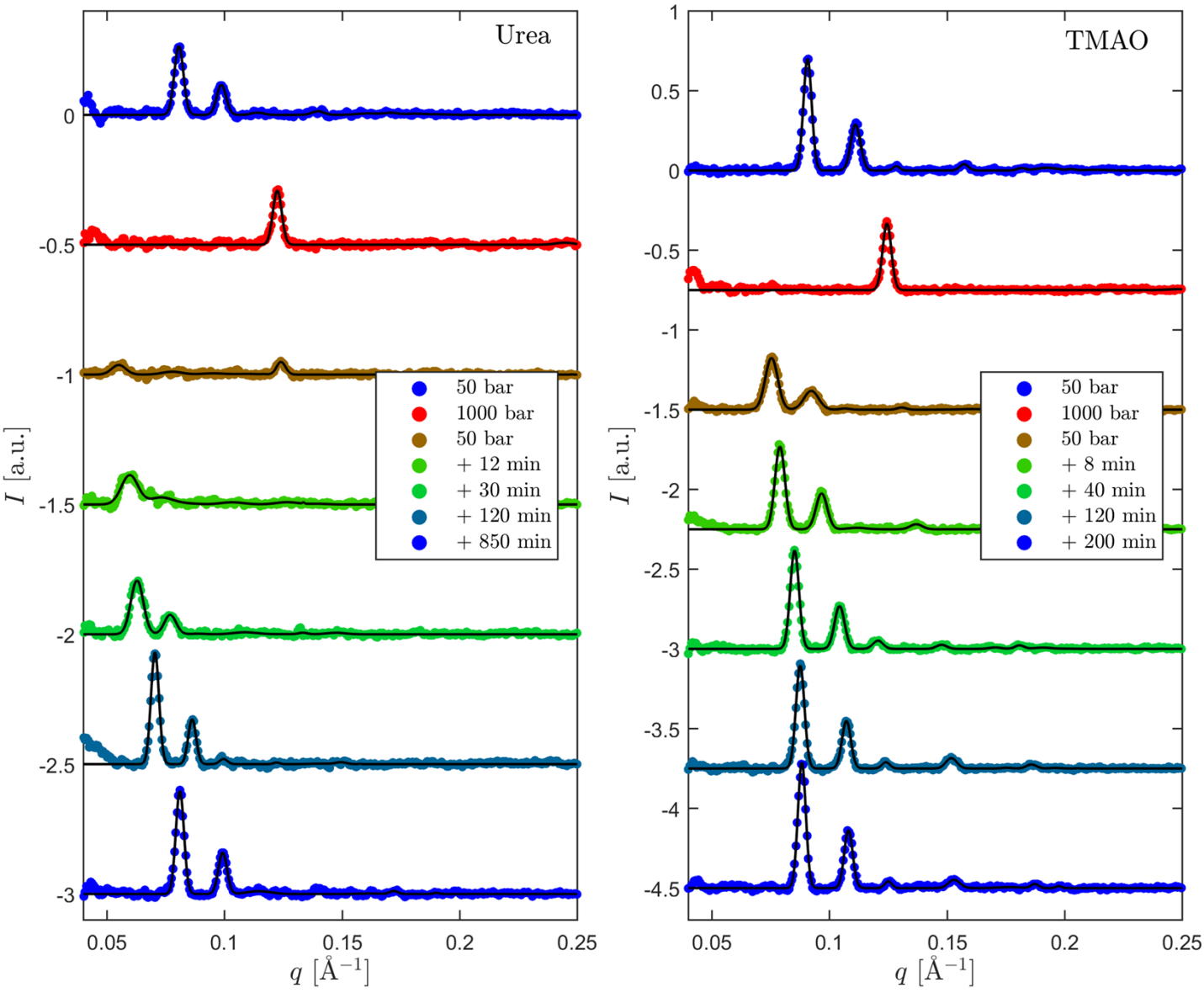
Supplementary information

Integrated SAXS patterns (co*lored points*) and fits (*black lines*) of monoolein samples containing 150 g/L PEG 400 (*left*) and PEG 1500 (*right*) before pressurization (*top*), at 1000 bar immediately before and at 50 bar immediately and at different times after the pressure-jump. The different phases were fitted with up to seven Gaussian distributions with independent width and intensity but a fixed ratio between their positions. Typically, the Pn3m phase occurred at 50 bar and the lamellar L_c phase at 1000 bar. For PEG 1500, however, the L_c phase was still visible during the first measurement at 50 bar after the pressure-jump.



Integrated SAXS patterns (co*lored points*) and fits (*black lines*) of monoolein samples containing 1 M urea (*left*) and TMAO (*right*) before pressurization (*top*), at 1000 bar immediately before and at 50 bar immediately and at different times after the pressure-jump. At 50 bar the cubic Pn3m phase occurred and at 1000 bar the lamellar L_c phase. For TMAO, the L_c phase was still visible during the first measurement at 50 bar after the pressure-jump.



Integrated intensity of the first two Pn3m Bragg reflections of monoolein in presence of PEG of different sizes (*top*) and the osmolytes urea and TMAO (*bottom*) as a function of time after a pressure-jump

(conducted at *t = 0*). The integrated intensities are normalized to their temporal mean values and vertically shifted for clarity.