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[908] Effects of formulation and flow on the structure of micellar aggregates

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Here practical and theoretical insights on tailoring complex fluids' properties by controlling formulation and flow-field interdependency are discussed. Viscoelastic properties depend on formulation and structure of micellar aggregates at equilibrium. The interplay between hydrophobicity and charge defines the conformation of additives, when they integrate into a micelle. Well-defined microfluidics shear and extension flow-fields are designed to investigate micellar stability under flow and its impact on viscoelasticity by combining SAXS, SANS and NMR measurements. Scanning-SANS and -SAXS record flow-induced phase, while their signals provide important contrast differences for studying the impact of formulation and flow on the structure of micellar aggregates.

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