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Mechanics of networks of aliphatic fibers in aqueous surfactant media¹ GIULIANO ZANCHETTA, Department of Physics, University of Fribourg, MARCO CAGGIONI, VINCENZO GUIDA, Procter & Gamble, VERONIQUE TRAPPE, Department of Physics, University of Fribourg — We investigate the structural and rheological properties of aliphatic fibers dispersed in aqueous solutions of anionic surfactants, typically used in liquid detergents to provide yield stress. This system displays an onset to solid-like properties that depends on fiber concentration. In this contribution we will discuss how tuning the state of the surfactant background influences the fiber-fiber interactions and the mechanical properties of the gel.

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