

Shear-mediated sol-gel transition of regenerated silk allows the formation of Janus-like microgels

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Supplementary Information

SI videos 1-3: Time-lapse videos showing asymmetric core-shell microgels with colloidal particles encapsulated within them.

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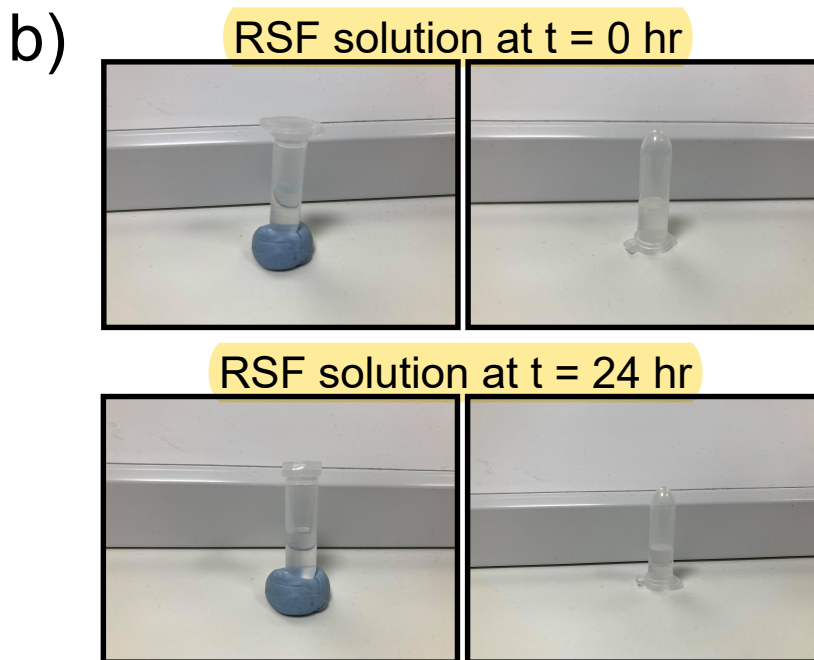
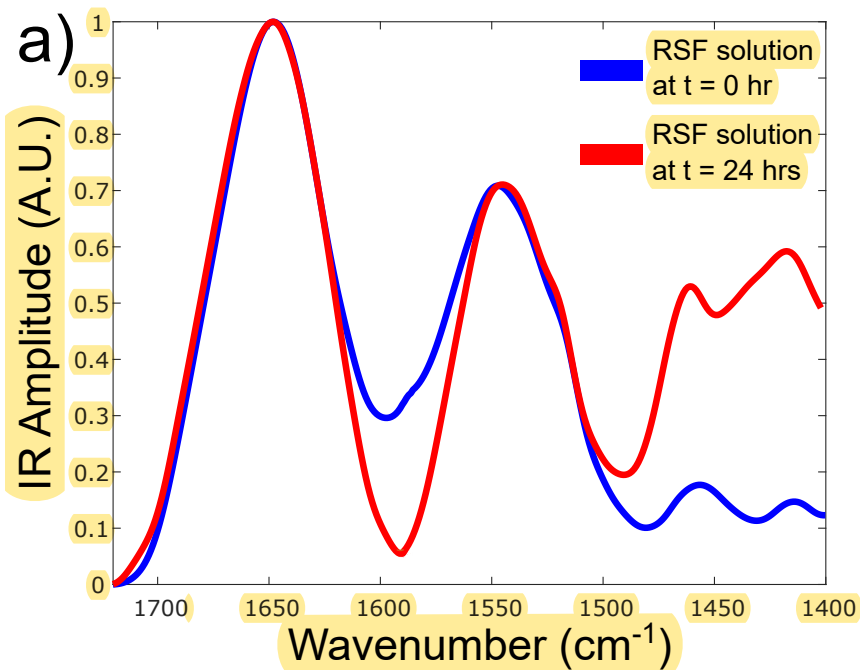


Figure 1: (a) FTIR spectra of 40 mg/ml RSF solution. The blue curve represents the RSF solution at $t = 0$ hr, while the red curve represents the micro-gels 24 hr after formation. (b) Images of the corresponding RSF solution at $t = 0$ hr and after 24 hr. For both measurements in (a) and (b), the solution was incubated at room temperature for 24 hr.

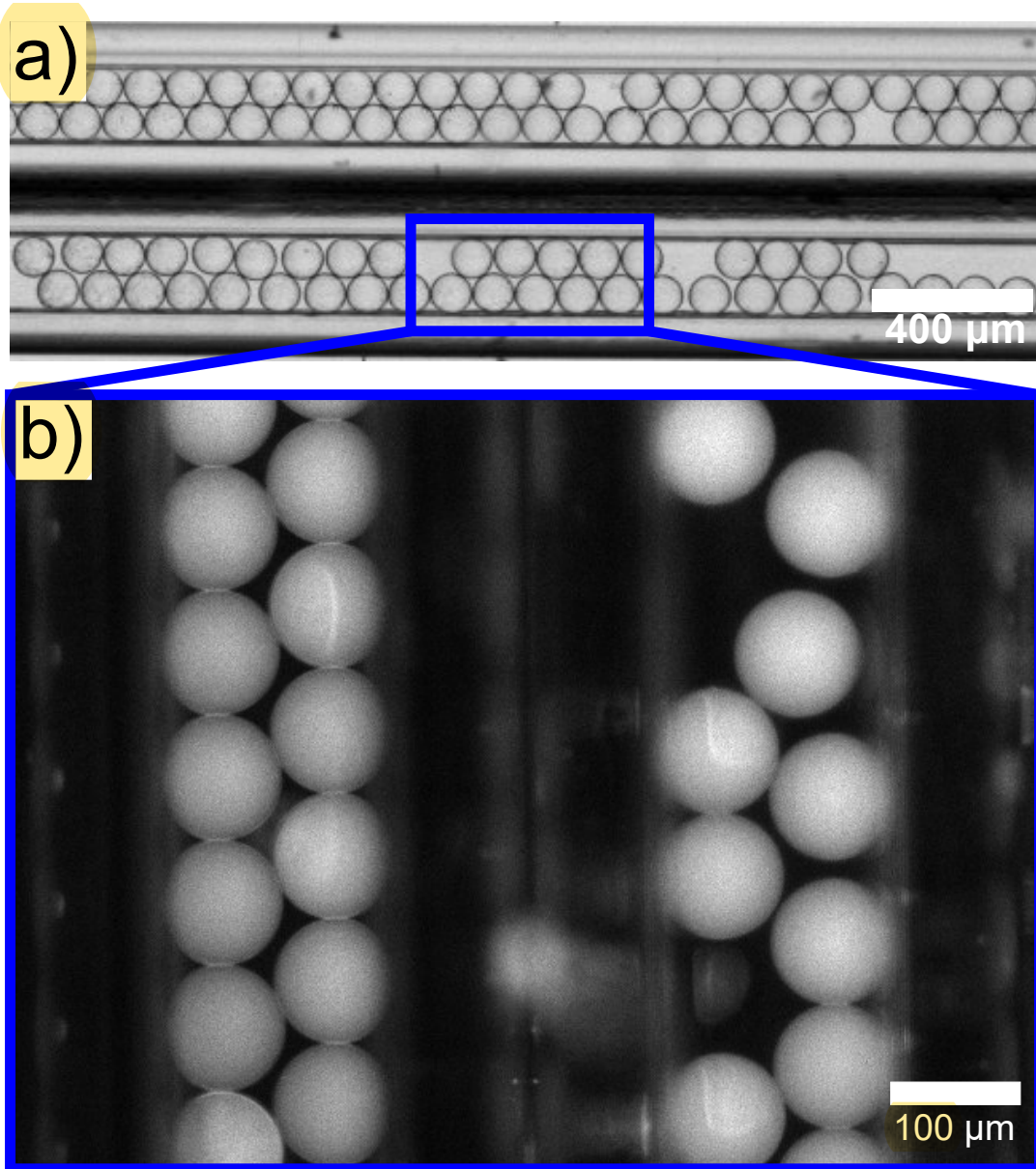


Figure 2: (a) Brightfield microscopy image of droplets consisting of silk fibroin solution, collected in a capillary following their generation. The droplets were formed using low flow rates ($Q_{dis}=10 \mu\text{L/hr}$, $Q_{cont}=50 \mu\text{L/hr}$). (b) Fluorescence microscopy images of the corresponding droplets. The droplets exhibit the same overall intensity, indicating that there is no surface aggregation present.