

SUPPLEMENTARY INFORMATION

Role of Interparticle Attraction in the Yielding Response of Microgel Suspensions

Lissajous Plots

The non-linearity during yielding can be assessed qualitatively from the Lissajous plots [1]. Stress is plotted as a function of strain for oscillation at a strain of $\gamma=300\%$ and a frequency of $\omega=10$ rad/s. for microgel suspensions with 12.5 mM and 75 mM salt respectively, Fig. 1a and 1b. The hysteresis loop signals the viscous nature of the sample. The absence of significant distortion suggests that interpretation of the response waveforms in terms of storage and loss moduli is not unreasonable.

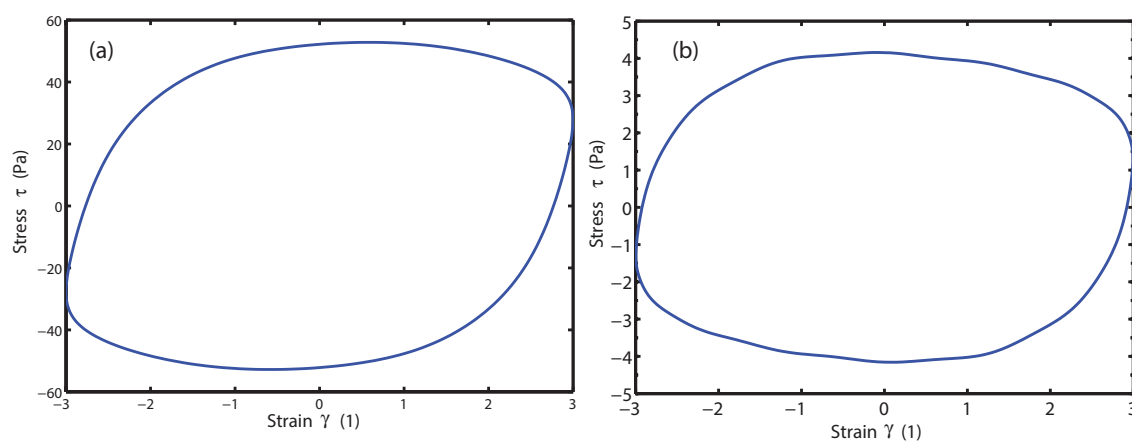


FIG. 1: (a) Lissajous plot for 0.5% Carbopol suspension with 12.5 mM salt at 300% strain and 10 rad/s frequency (b) Lissajous plot for 0.5% Carbopol suspension with 75 mM salt at 300% strain and 10 rad/s frequency.

[1] R. H. Ewoldt, A. Hosoi, and G. H. McKinley, *Journal of Rheology* **52**, 1427 (2008).