

Supporting Information for

**Bijel rheology reveals a 2D colloidal glass
wrapped in 3D**

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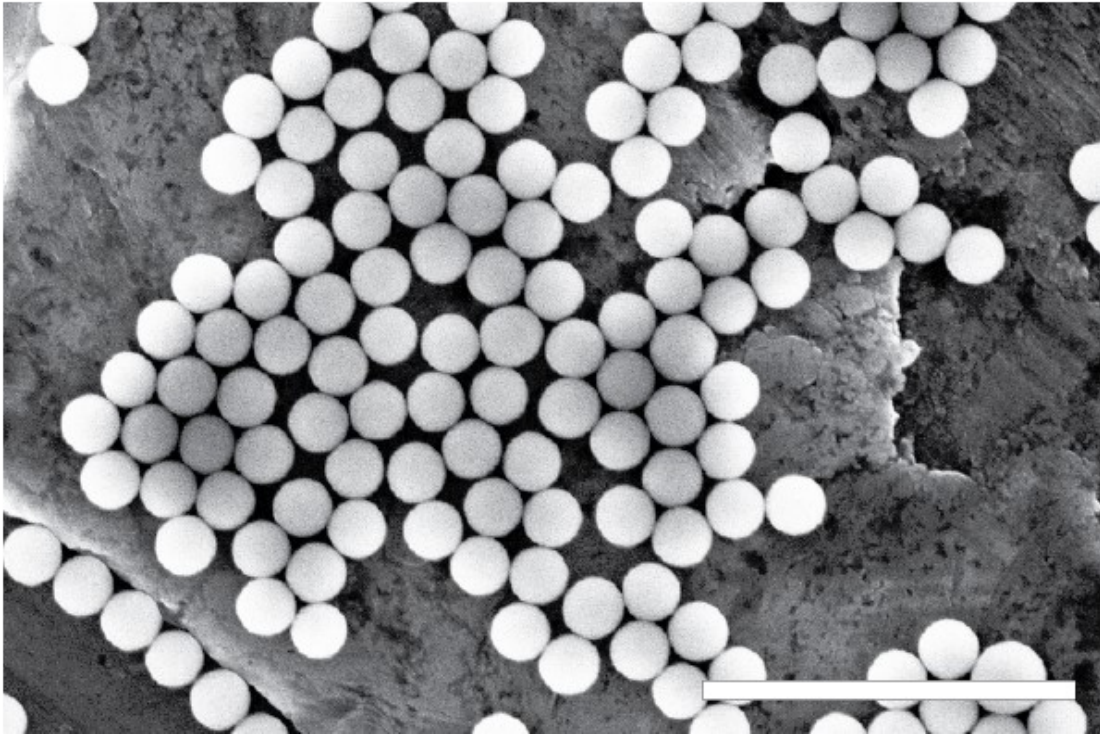


Fig. S1 A SEM micrograph of the SNPs used in the preparation of 14BD/PC bijels. Scale bar = 2 μm .

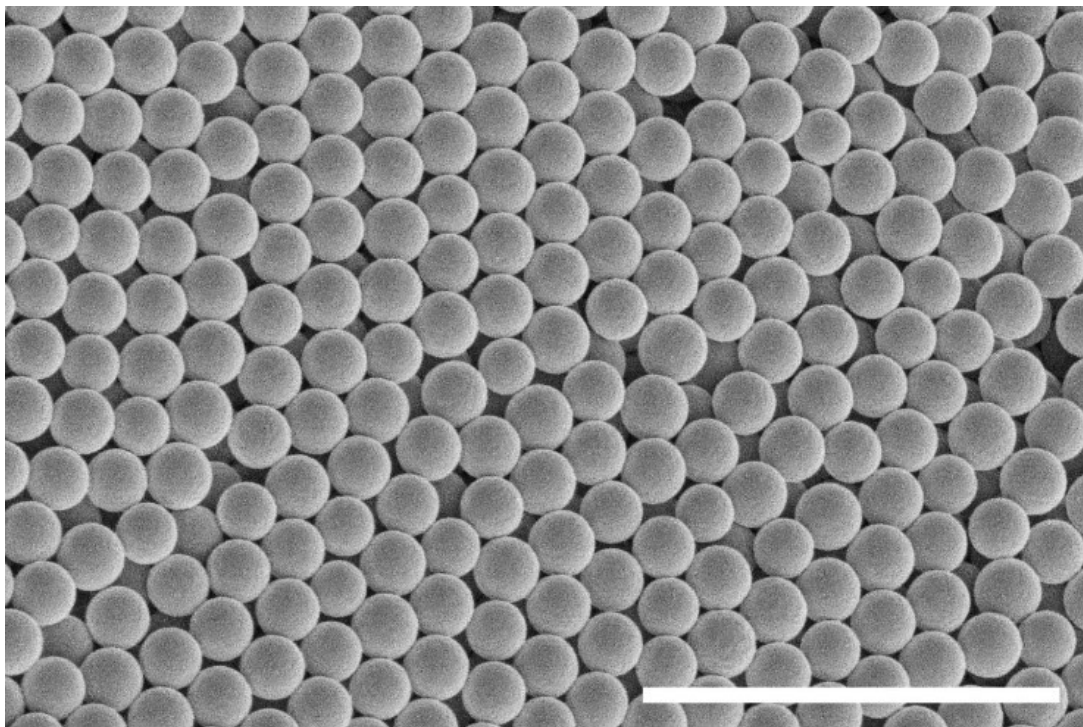


Fig. S2 A SEM micrograph of the PHSА-PMMA particles used in the preparation of 13BD/DOP capillary suspensions. Scale bar = 10 μm .

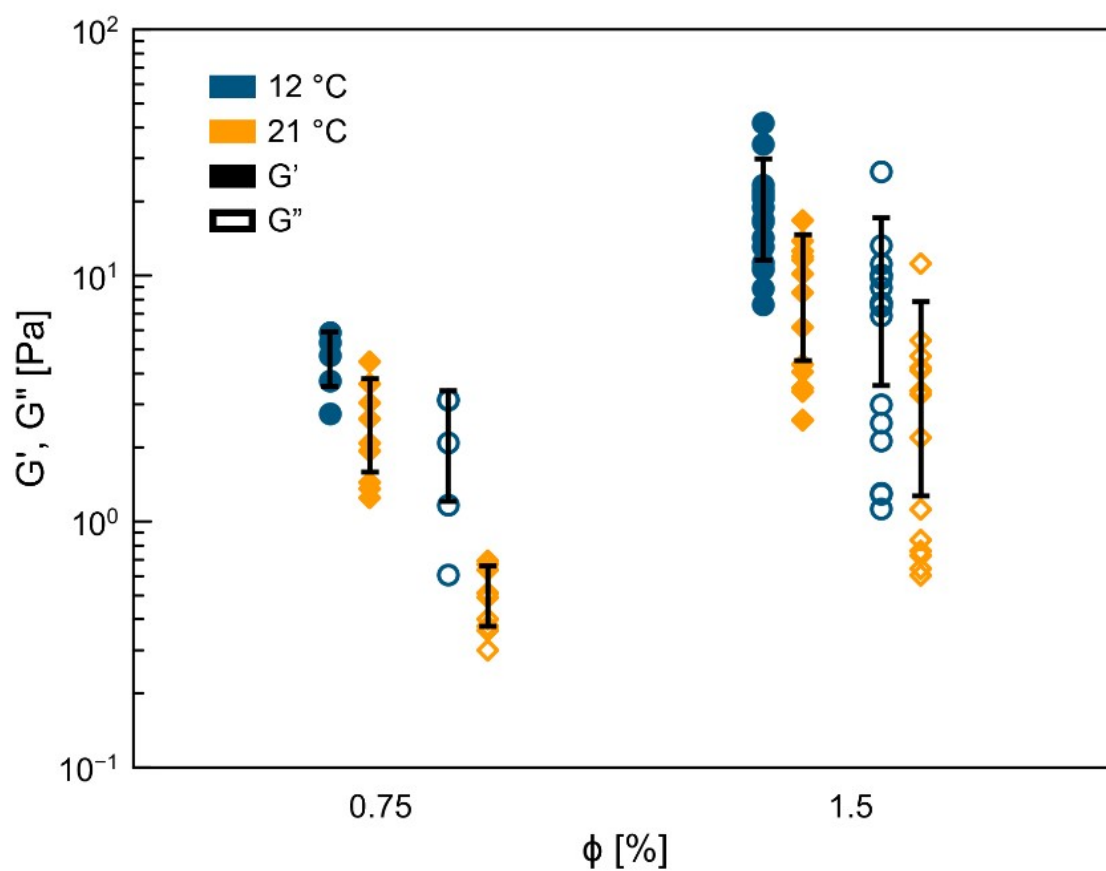


Fig. S3 Near-steady state G' (close symbols) and G'' (open symbols) of 14BD/PC bijels with $\phi_{SNP} = 7.5 \times 10^{-3}$ and 1.5×10^{-2} at 12°C (orange) and 21°C (blue). The samples were measured at $\gamma = 1.0 \times 10^{-1}\%$ strain and frequency $\omega = 6.3 \times 10^{-1}$ rad/s after a 2 h long aging period. Error bars represent the relative error ($N \geq 5$).

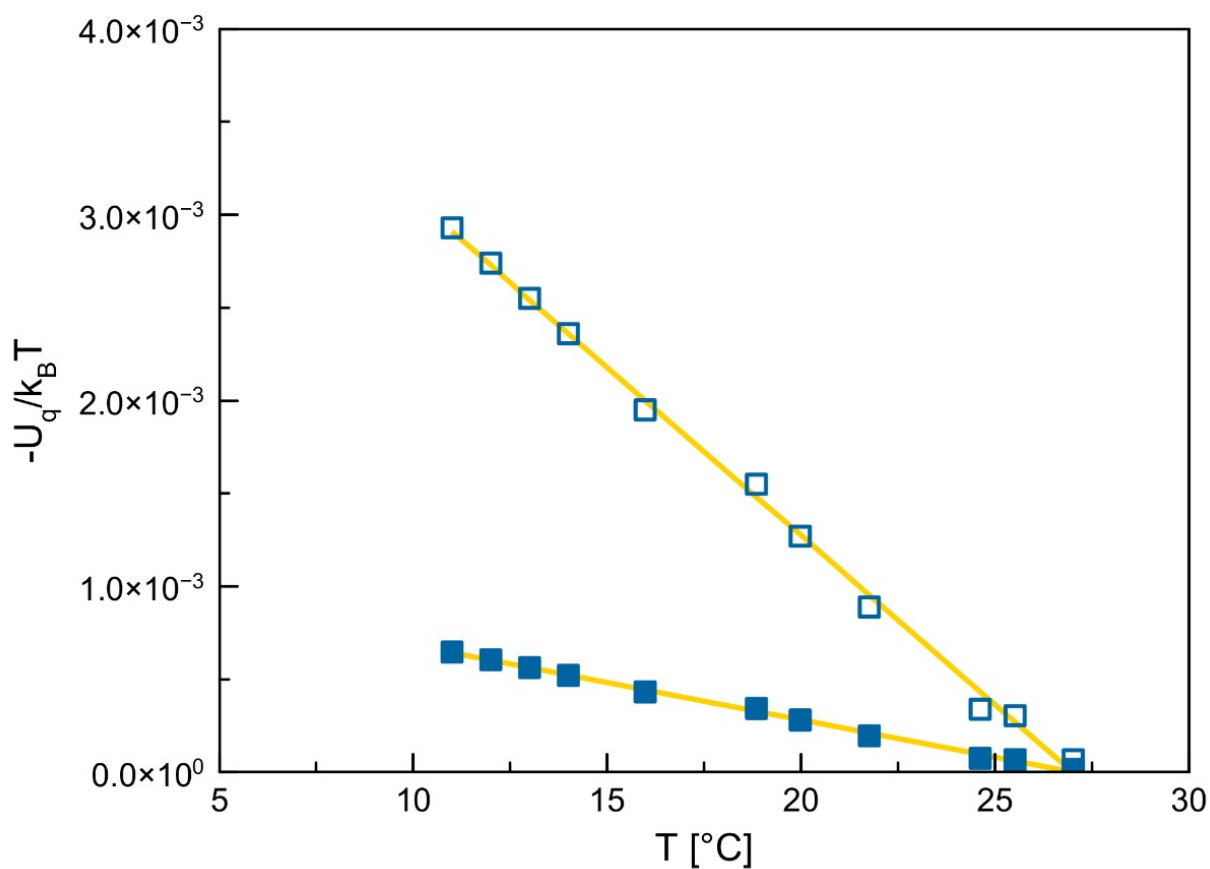


Fig. S4 Capillary pair-potential (U_q) induced by local quadrupolar deformation of an interface with negative Gaussian curvature, plotted as a function of temperature for 14BD/PC bijels comprising $\phi_{SNP} = 7.5 \times 10^{-3}$ (close symbols) and 1.5×10^{-2} (open symbols). The blue markers present values calculated from the interfacial tension measurements, and the yellow lines are linear fits.

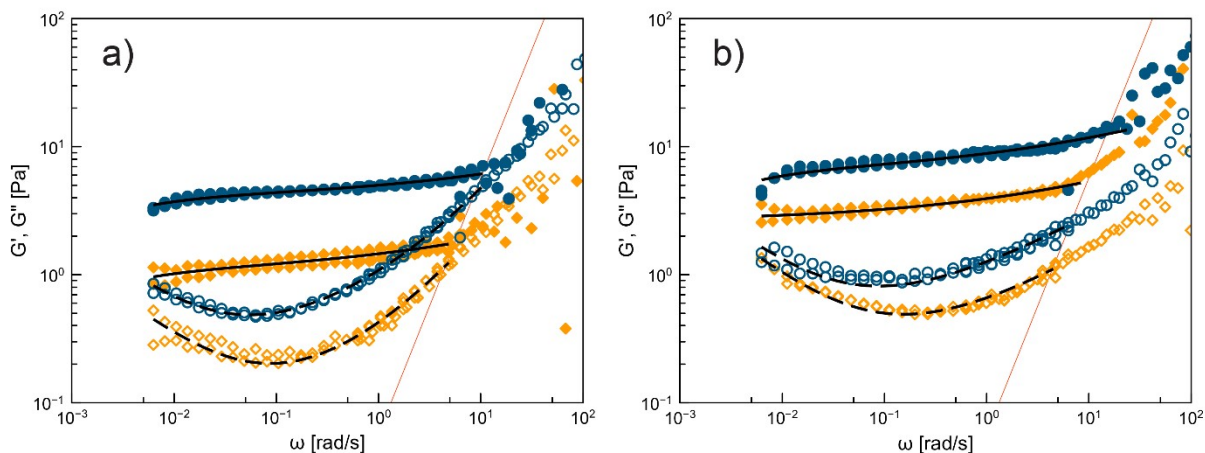


Fig. S5 Frequency response of 14BD/PC bijels comprising $\phi_{SNP} = 7.5 \times 10^{-3}$ (a) and 1.5×10^{-2} (b) at $T = 12$ (blue) and 21°C (orange). G' and G'' are marked by open and close symbols, respectively. The solid and dashed lines represent the MCT fits. The red lines indicate the rheometer inertia limit.

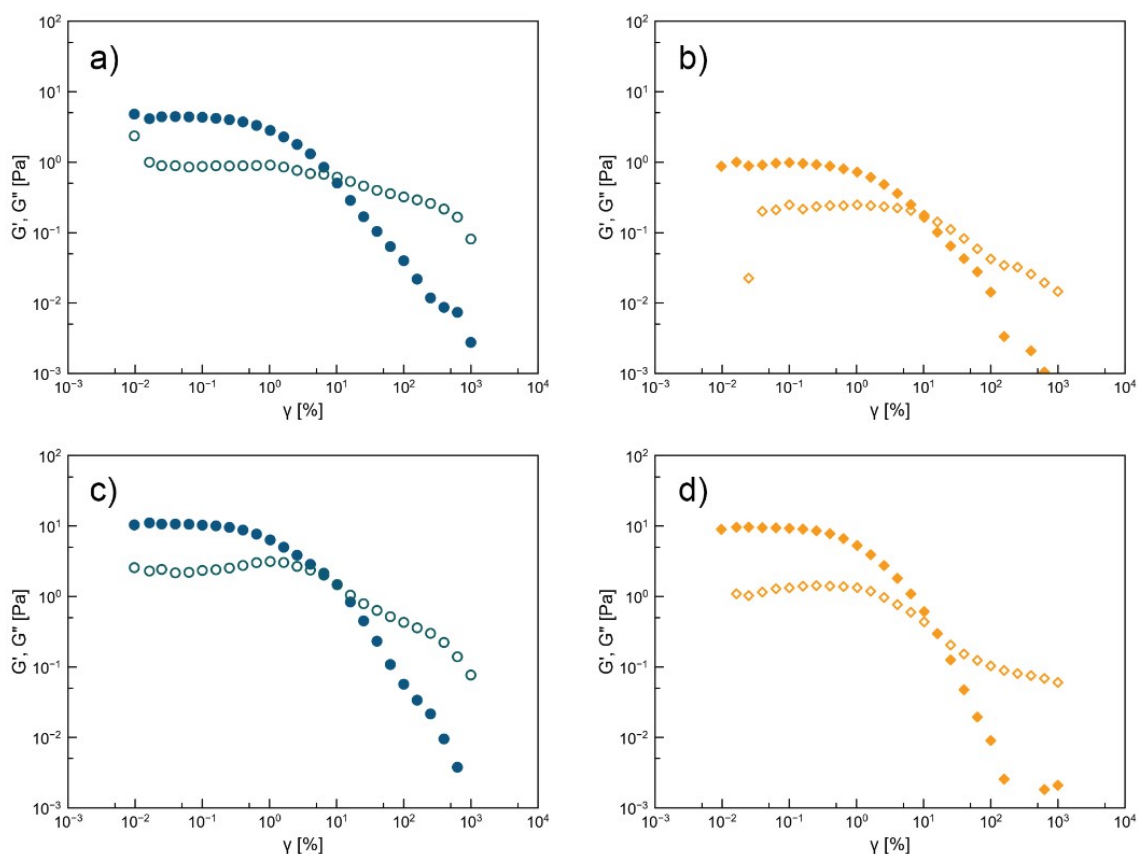


Fig. S6 Oscillatory amplitude sweeps showcasing the transition of G' (open symbols) and G'' (close symbols) from linear to non-linear viscoelasticity for 14BD/PC bijels comprising $\phi_{SNP} = 7.5 \times 10^{-3}$ (a,b) and 1.5×10^{-2} (c,d). The blue and orange symbols represent measurements conducted at $T = 12$ and 21°C , respectively.

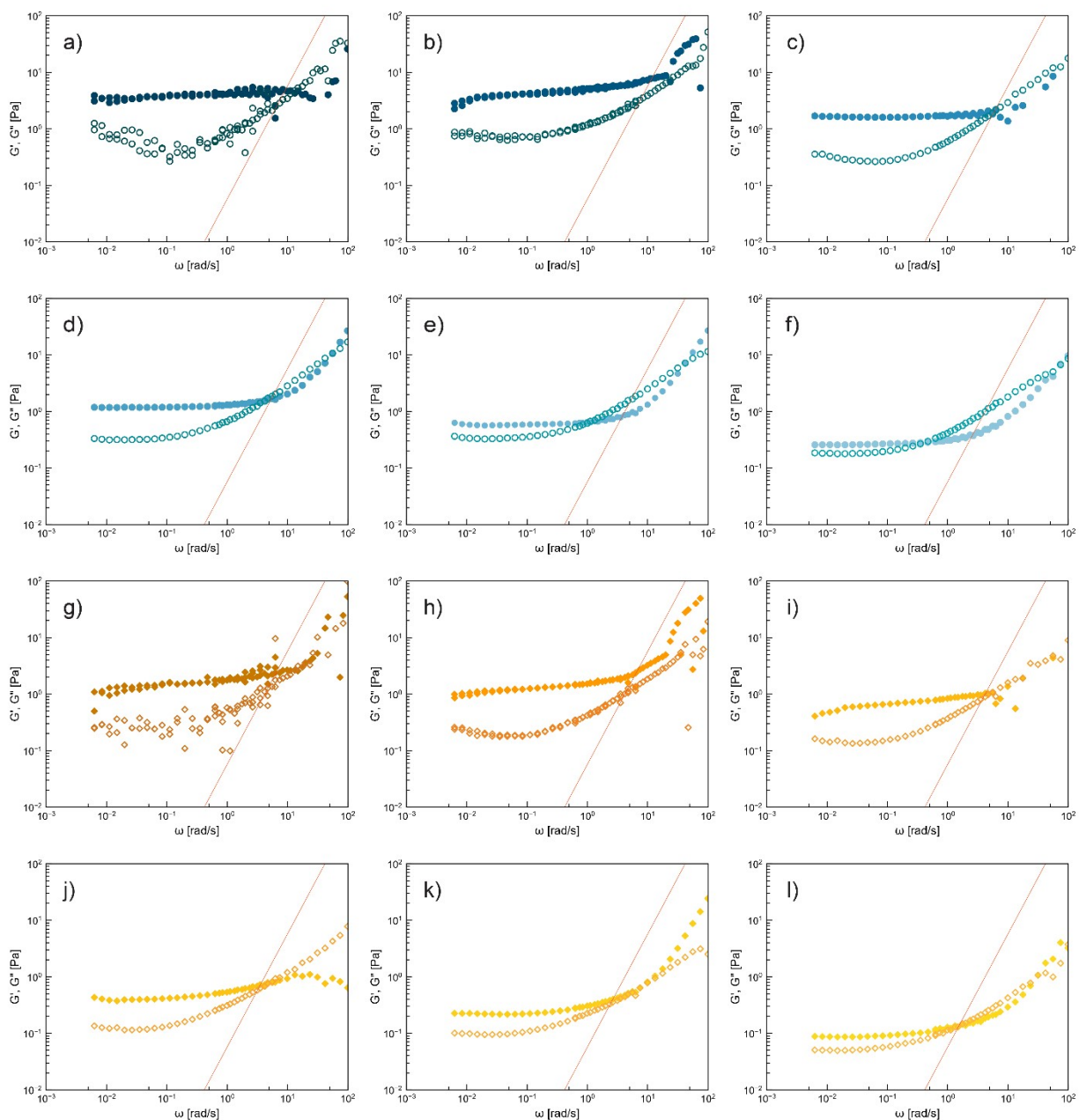


Fig. S17 Frequency ω response of 14BD/PC bijels comprising $\phi_{SNP} = 7.5 \times 10^{-3}$ (a-l) and 1.5×10^{-2} (m-x) at small and medium strains. G' and G'' are marked by open and close symbols, respectively. The dark to light colors (or a-f, g-l, m-r, s-x) represent 1.0×10^{-2} , 1.0×10^{-1} , 1.0, 2.0, 5.0, and 10% strains, respectively. The blue and orange symbols represent measurements at 12 and 21°C, respectively. The red lines indicate the rheometer inertia limit.

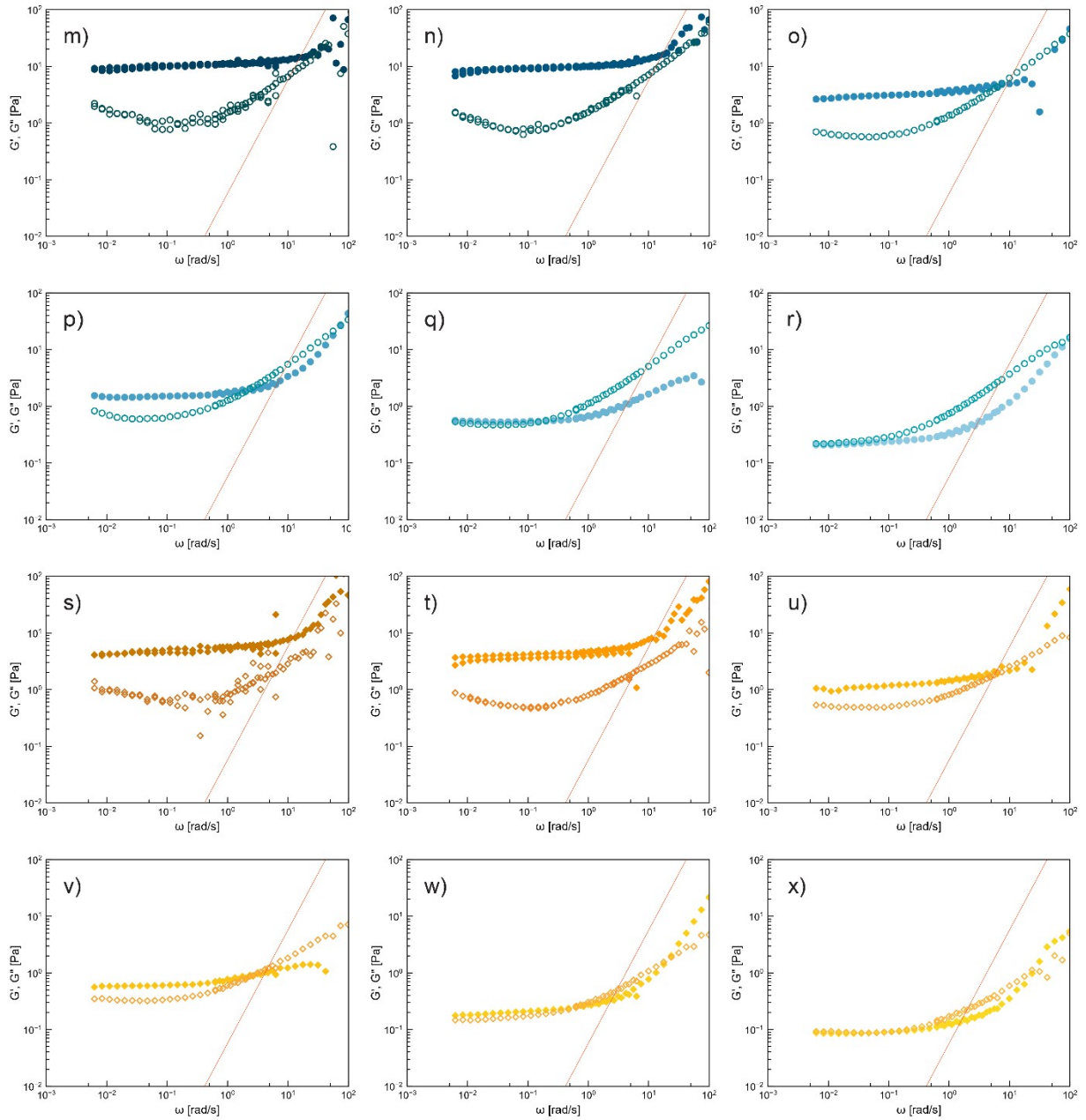


Fig. S17 Continue.

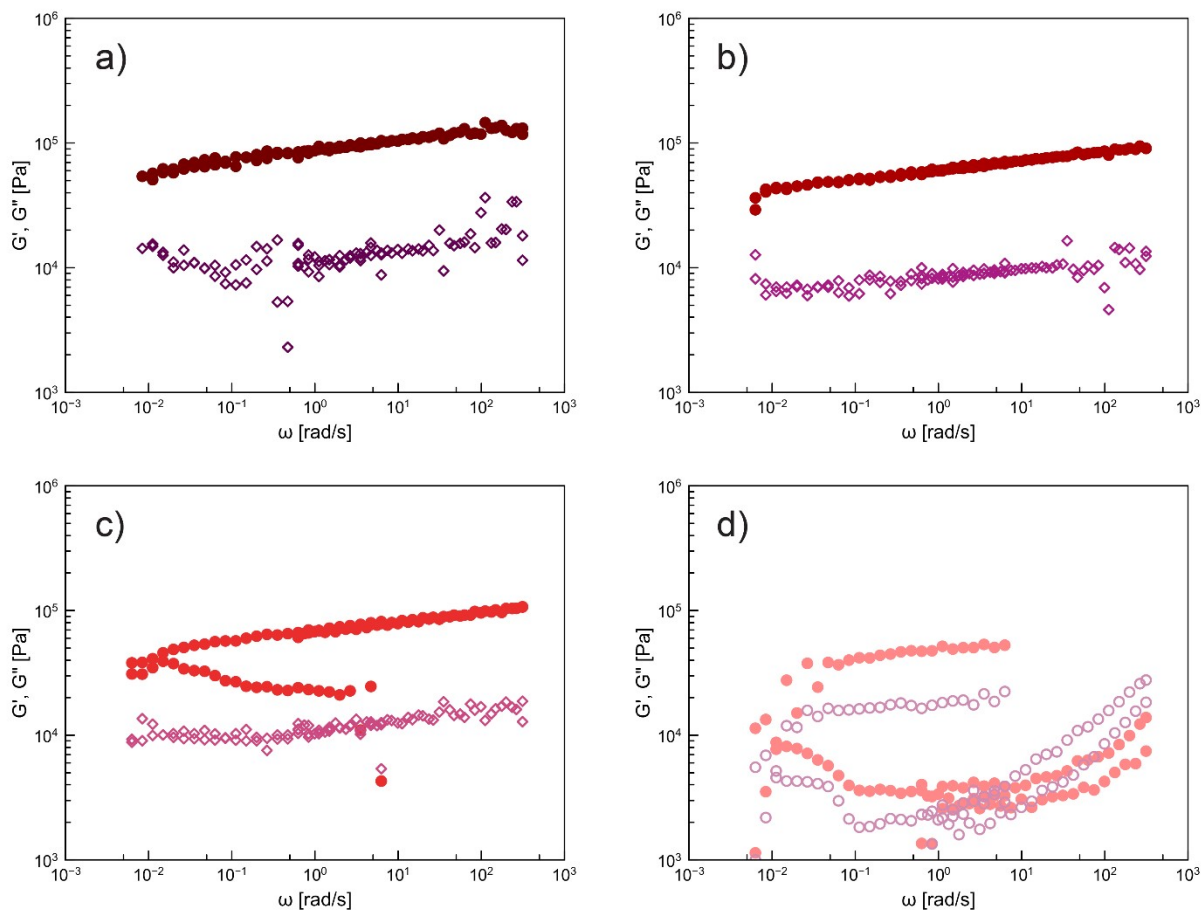


Fig. S18 Frequency response of 13BD/DOP capillary suspensions comprising $\phi_{PMMA} = 0.20$ at small and medium strains. The strain amplitude of each frequency sweep is: (a) $1.0 \times 10^{-2}\%$, (b) $2.5 \times 10^{-2}\%$, (c) $4.0 \times 10^{-2}\%$, (d) $1.0 \times 10^{-1}\%$. G' and G'' are marked by open and close symbols, respectively.