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Supplementary information

Condensates in RNA repeat sequences are heterogeneously organized and exhibit reptation dynamics

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Supplementary Information for "Condensates in RNA Repeat Sequences are Heterogeneously Organized and Exhibit Reptation Dynamics"

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Supplementary Figures

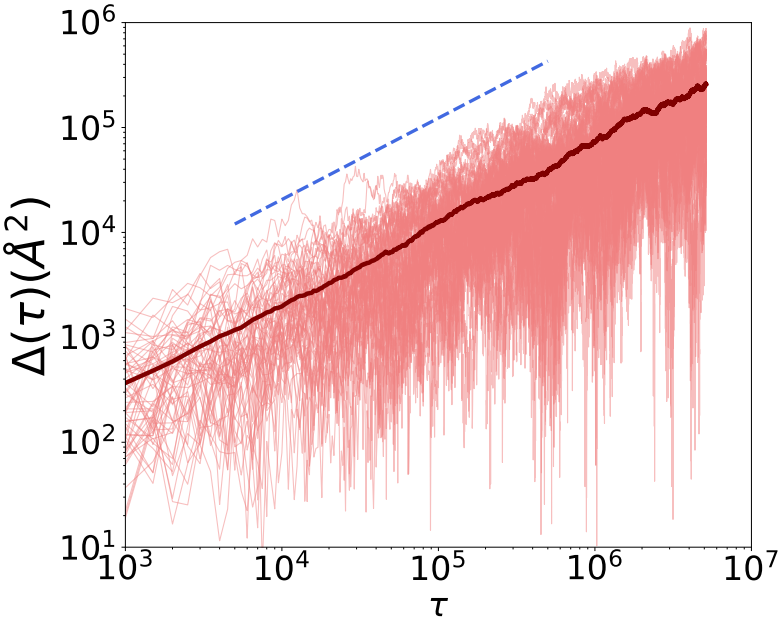

Figure 1. Mean square displacement (MSD) of nucleotides in monomers in the diluted phase. The average values are plotted as the solid line. The MSD scales as $\tau^{0.78}$ (blue) at all time scale, showing no sign of reptation dynamics.

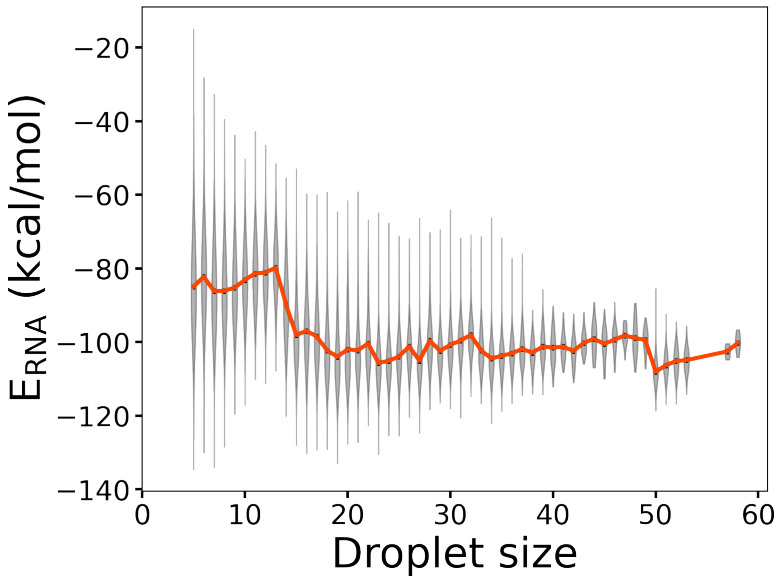

Figure 2. Energy per chain vs droplet size. As the size of the condensate increases, the energy per chain decreases, which indeed is the reason for phase separation from a thermodynamic perspective.

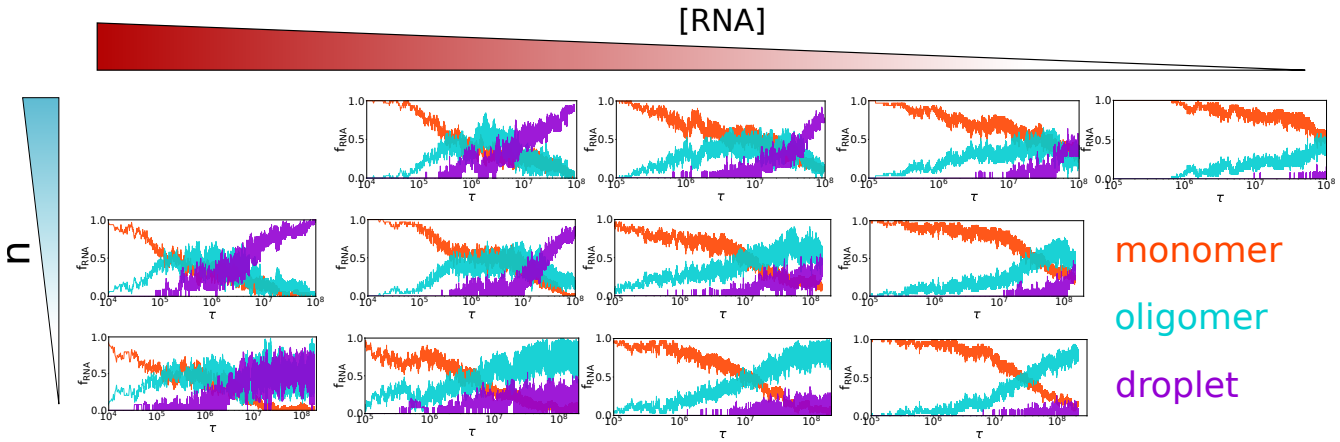

Figure 3. Fraction of monomers, oligomers and droplets as a function of (CAG) repeat length and concentration.

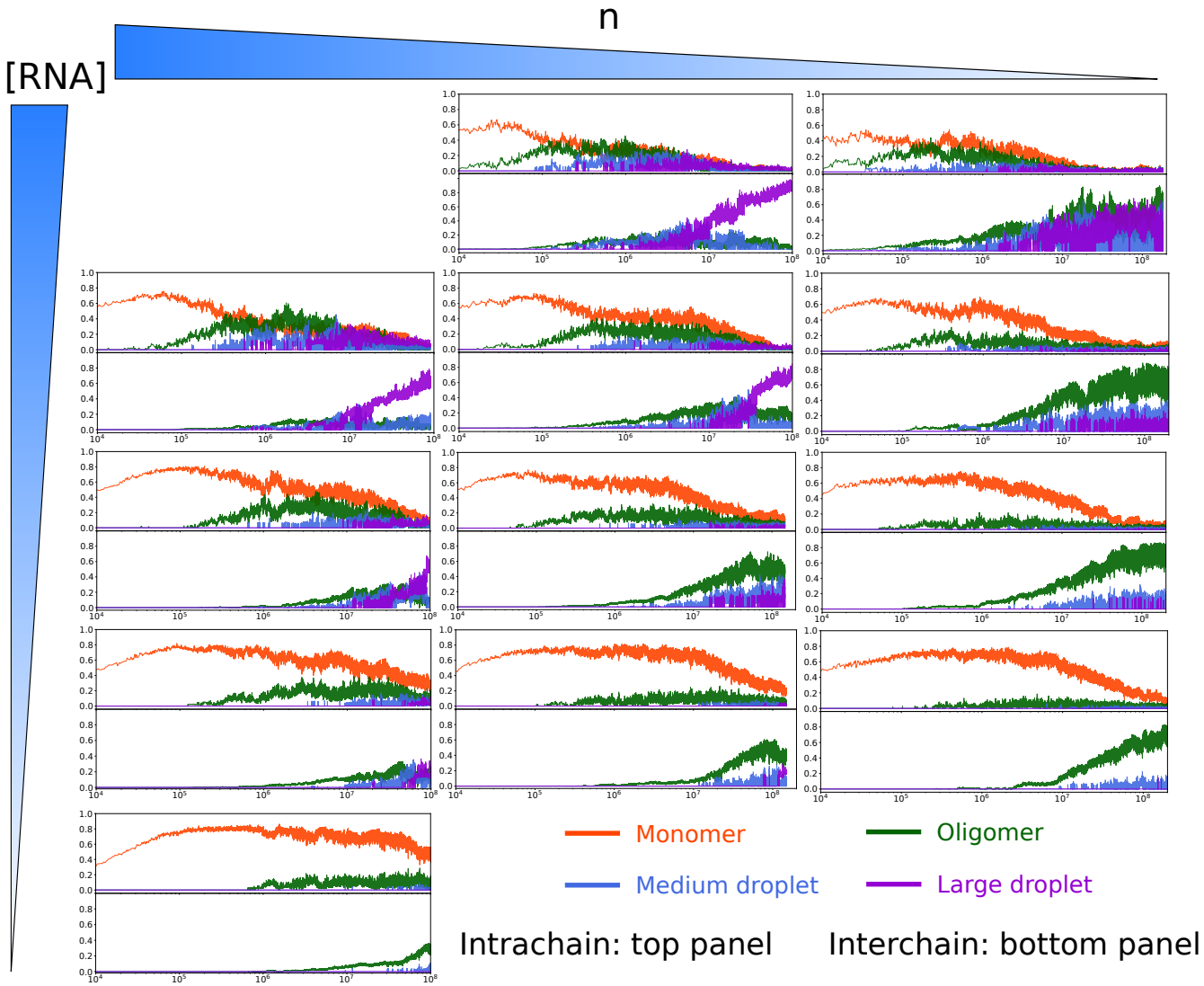

Figure 4. Fraction of (both intra- and intermolecular) base pairs as a function of time. The conversion of intra- to intermolecular interactions is the dominant factor driving the phase separation.

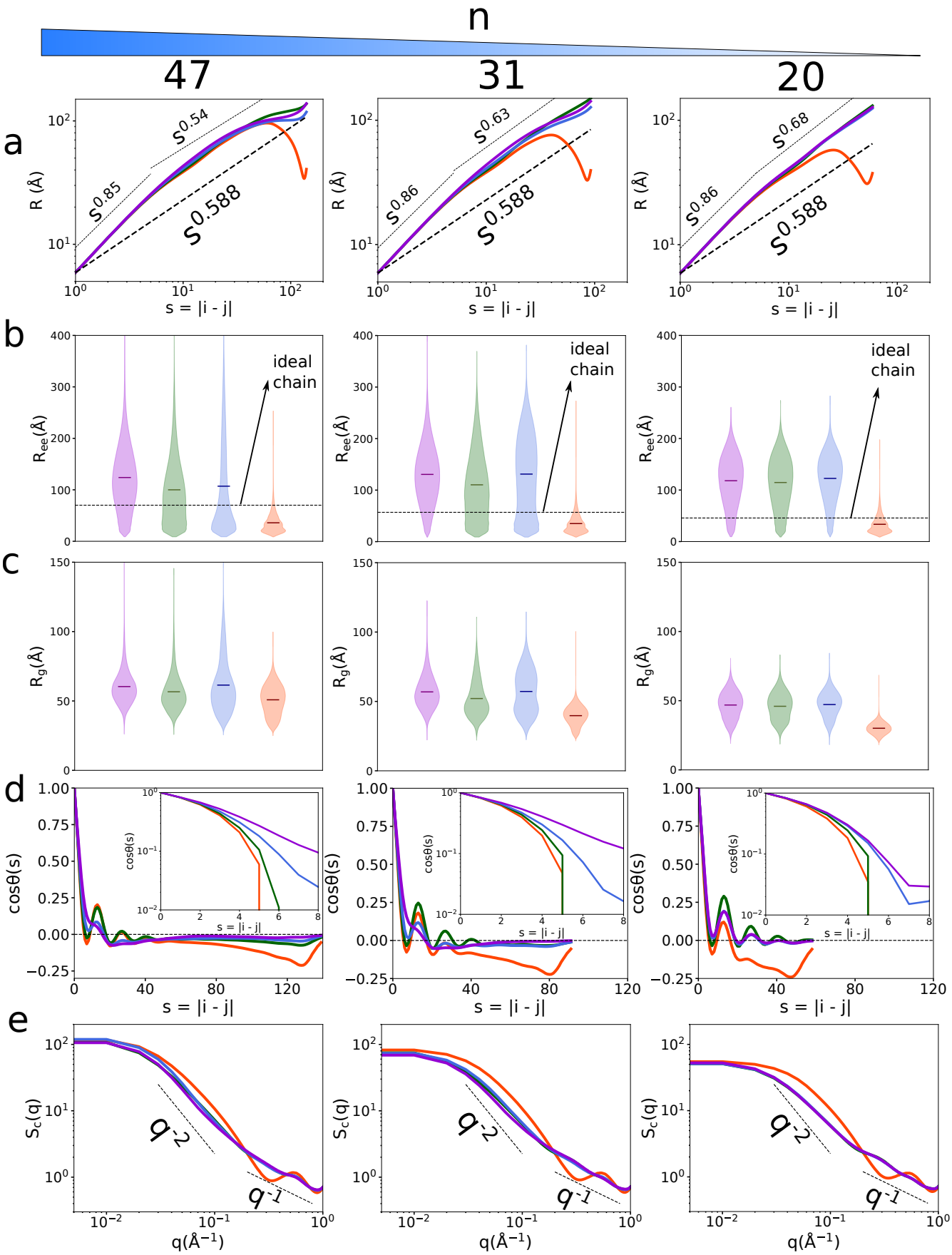

Figure 5. RNA undergoes significant conformational changes upon entering droplets. Color codes are similar to Figs. 2 and 3 in the main text.

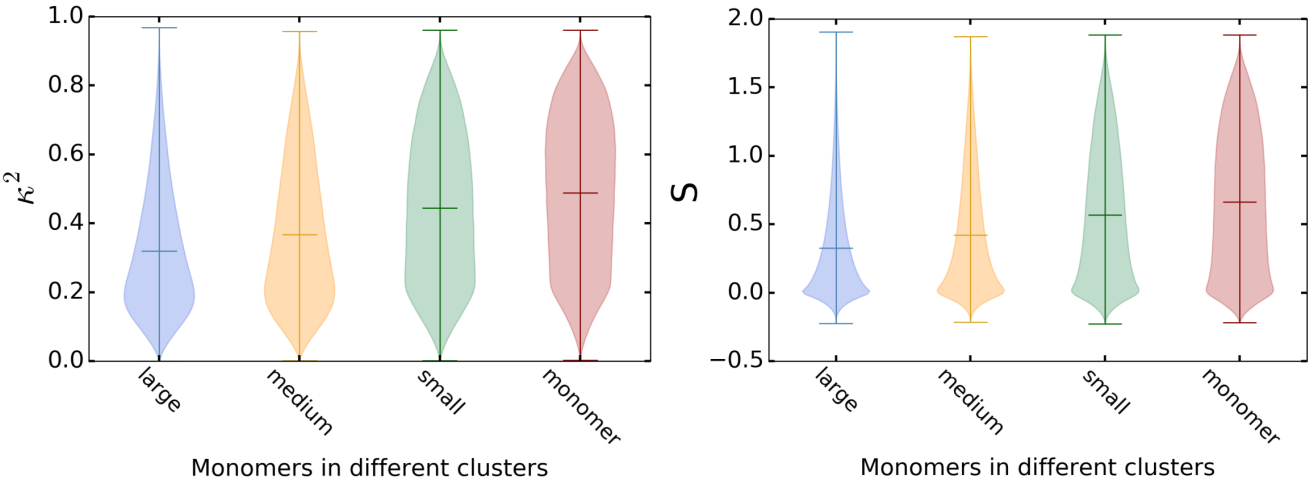

Figure 6. Comparison of shape parameters of monomeric RNAs in solution and in droplets.

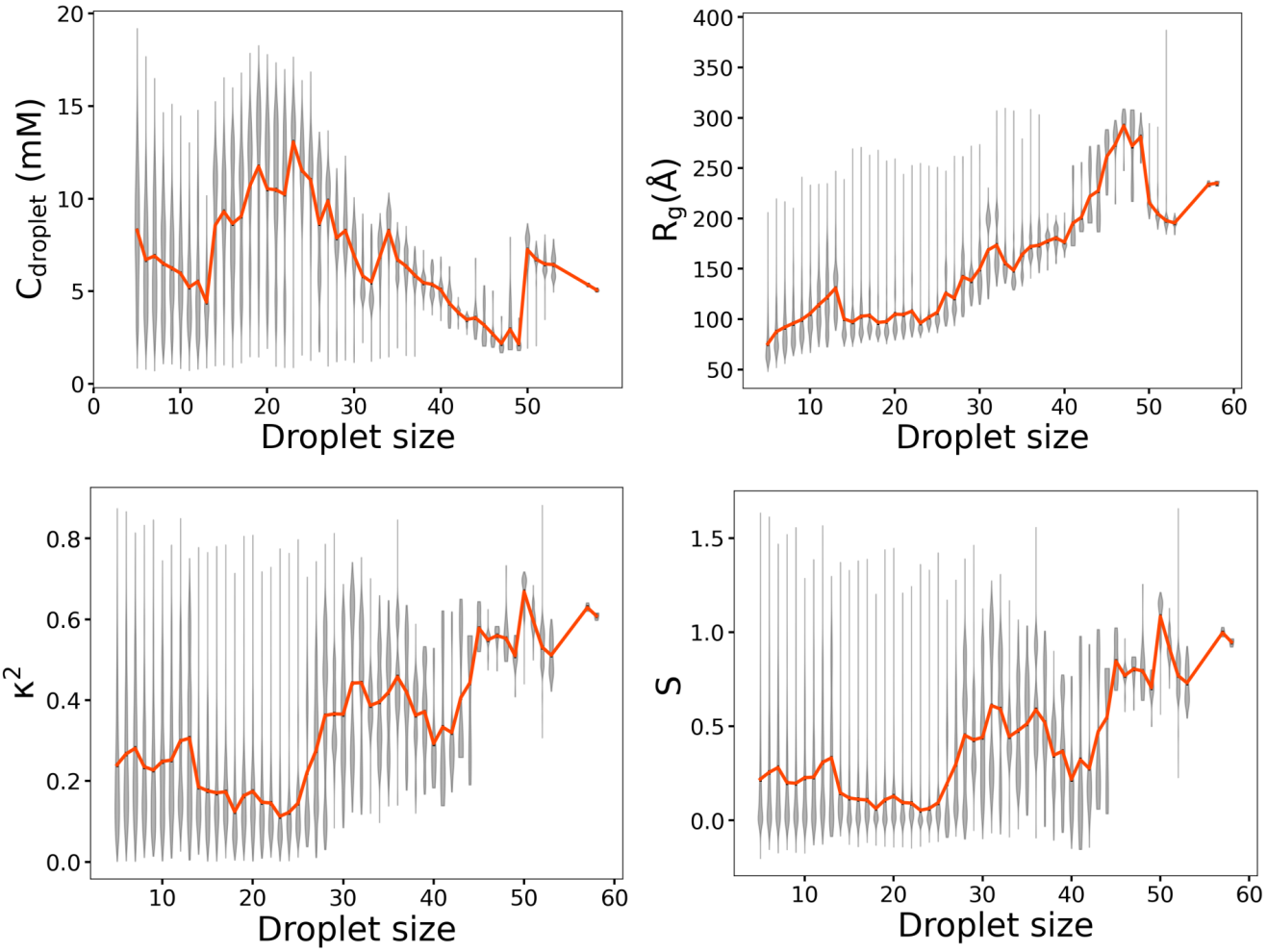

Figure 7. Characterization of droplet properties as a function of droplet size.