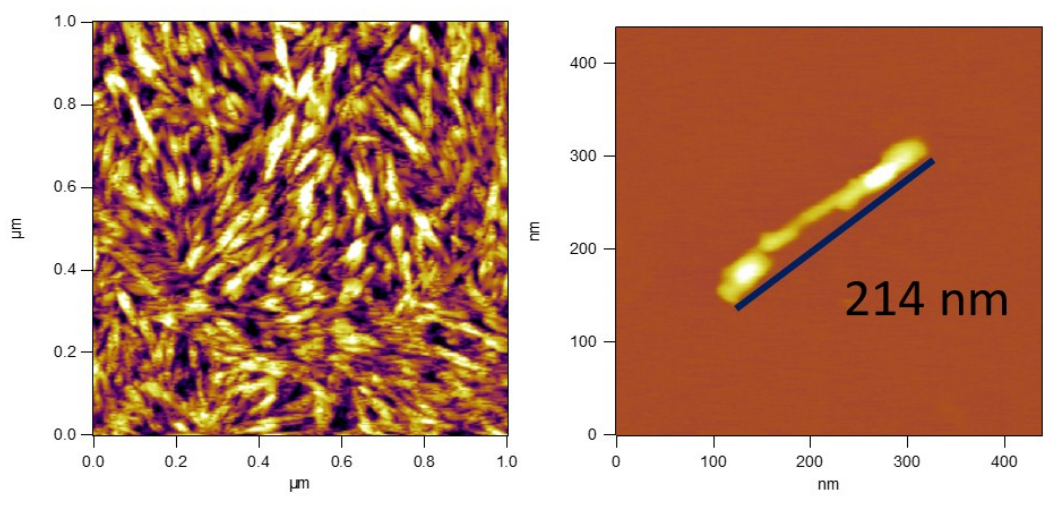


**Supplementary Materials for:**

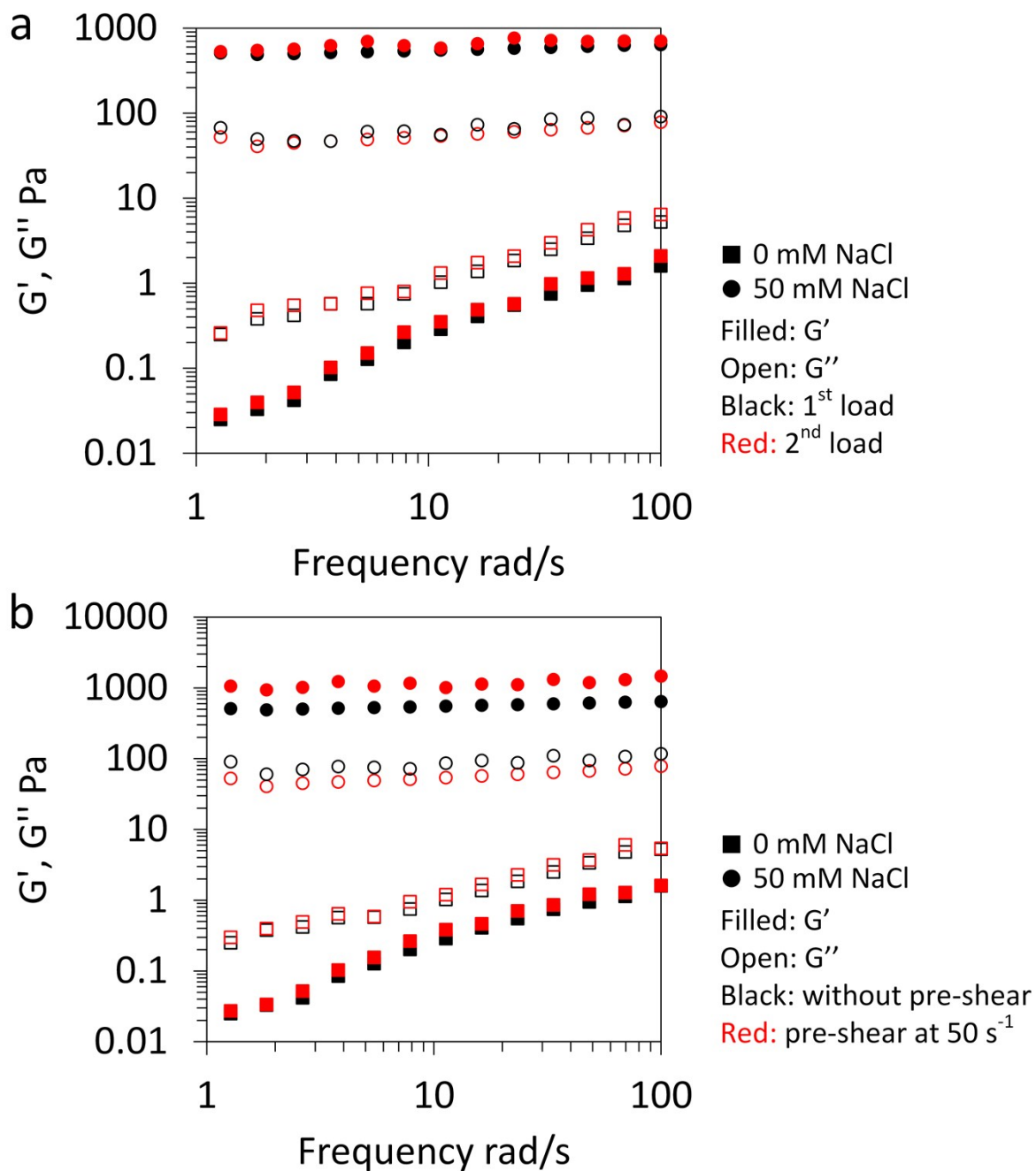
“Liquid, Gel and Soft Glass” Phase response of nanocrystalline cellulose suspension to concentration and salinity change

**This file includes:**

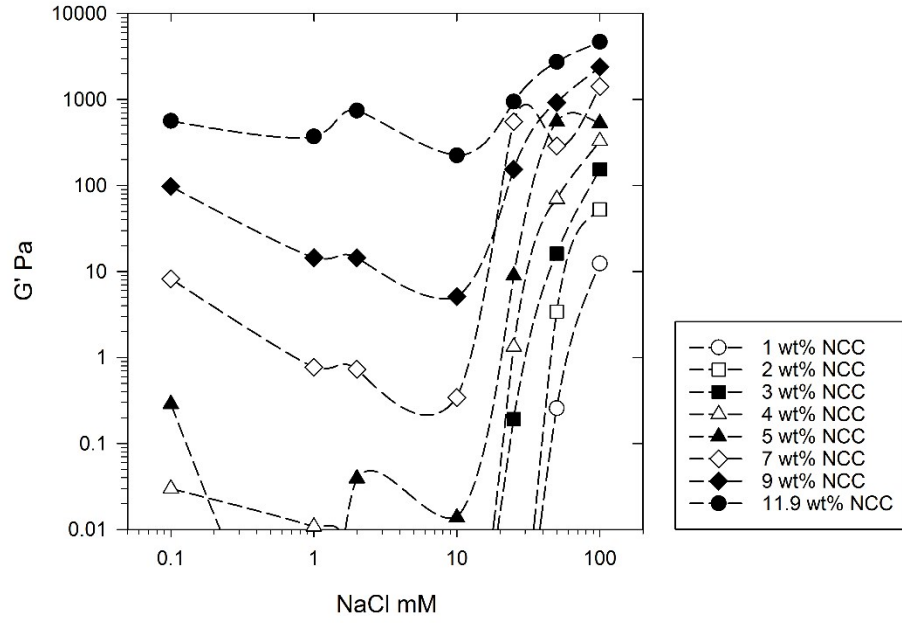
Figures S1-S7



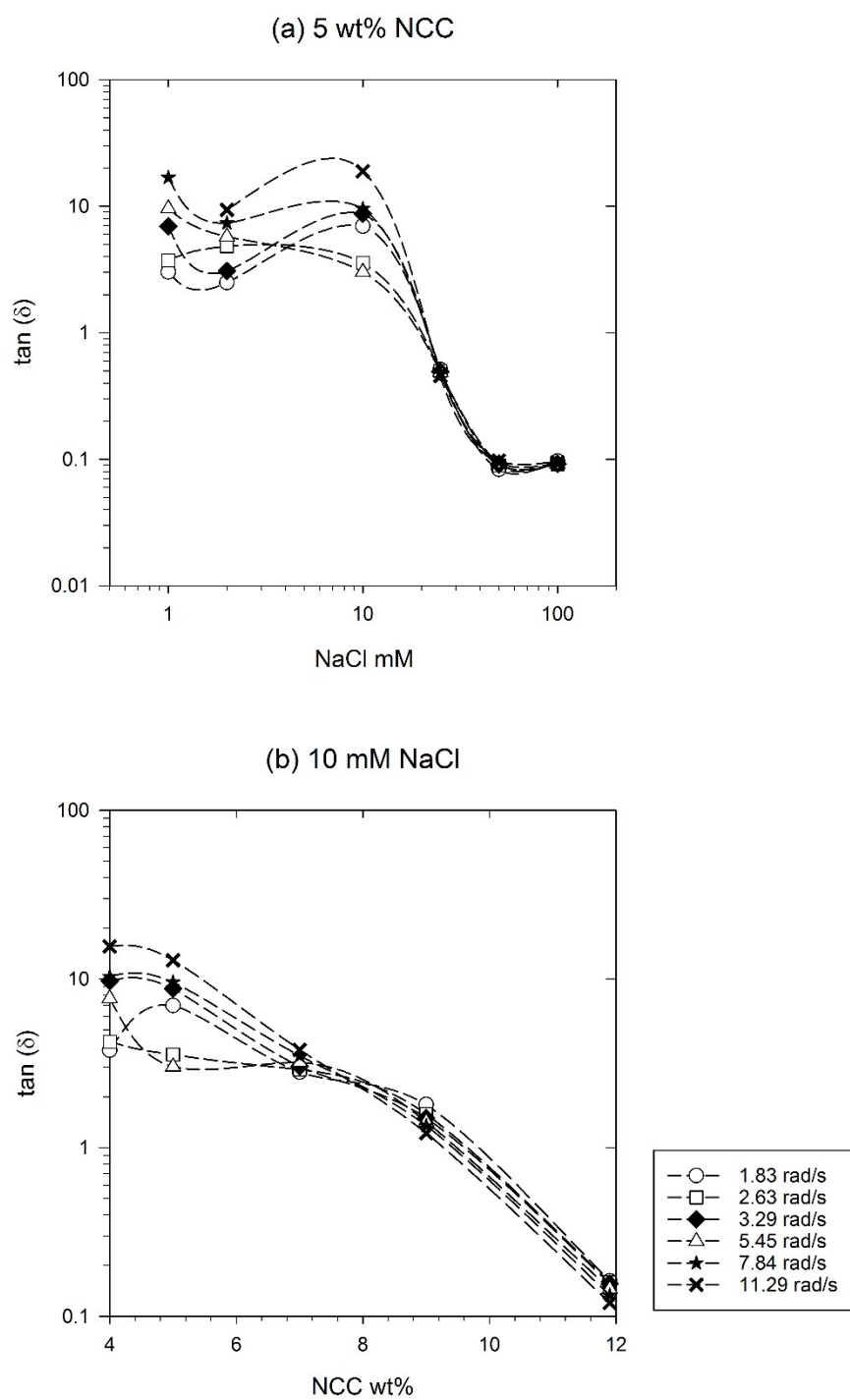
**Fig. S1** AFM image of NCC suspension.



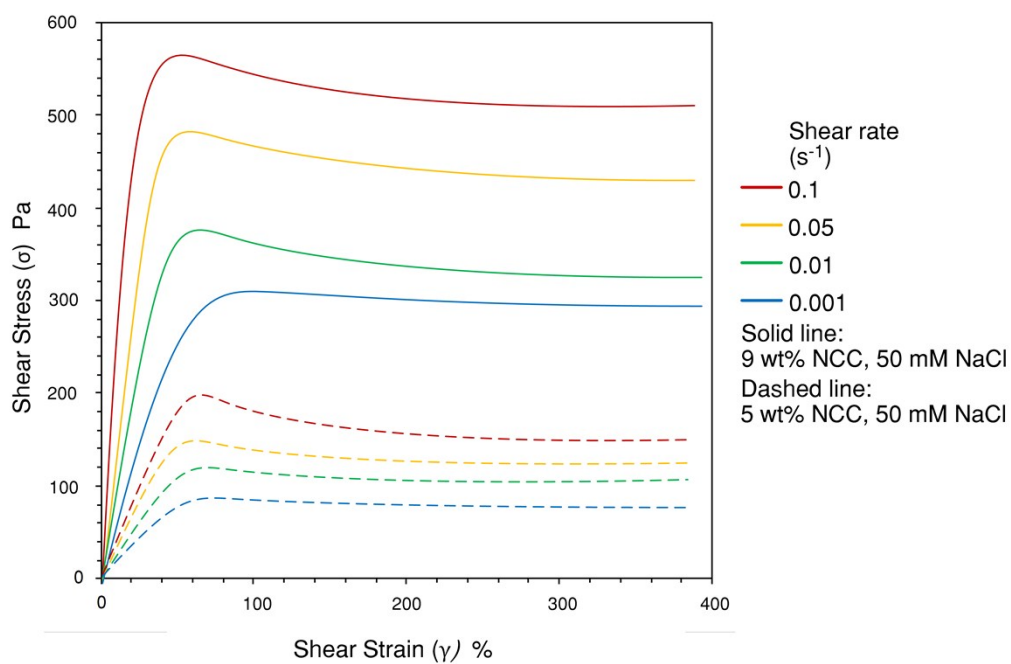
**Fig. S2**, Effect of loading and pre-shear for 5 wt% NCC suspension. Samples are pre-sheared until the viscosity reach an equilibrium.



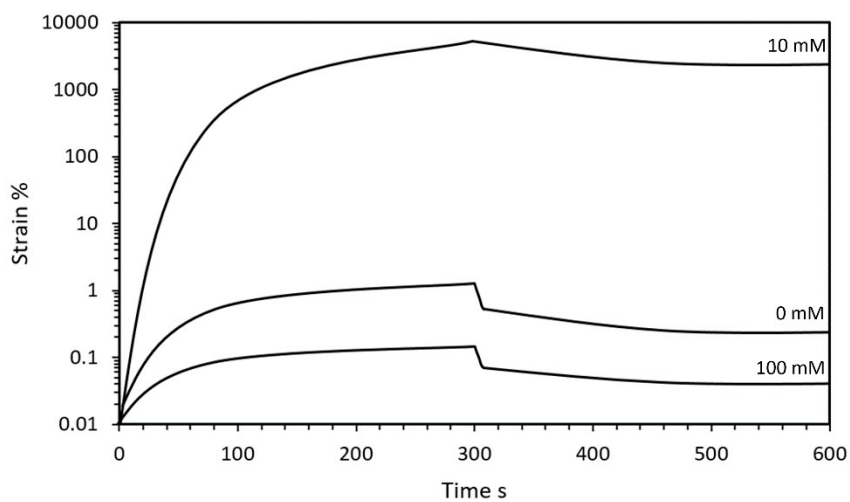
**Fig. S3**  $G'$  at 11.29 rad/s of NCC aqueous suspension at different salt concentration. The value below the lower limit of y-axis represented extremely small or unmeasurable  $G'$  where the  $\tan(\delta)$  ( $G''/G'$ ) was infinite. 0.0001 M NaCl concentration represented samples with zero added salt.



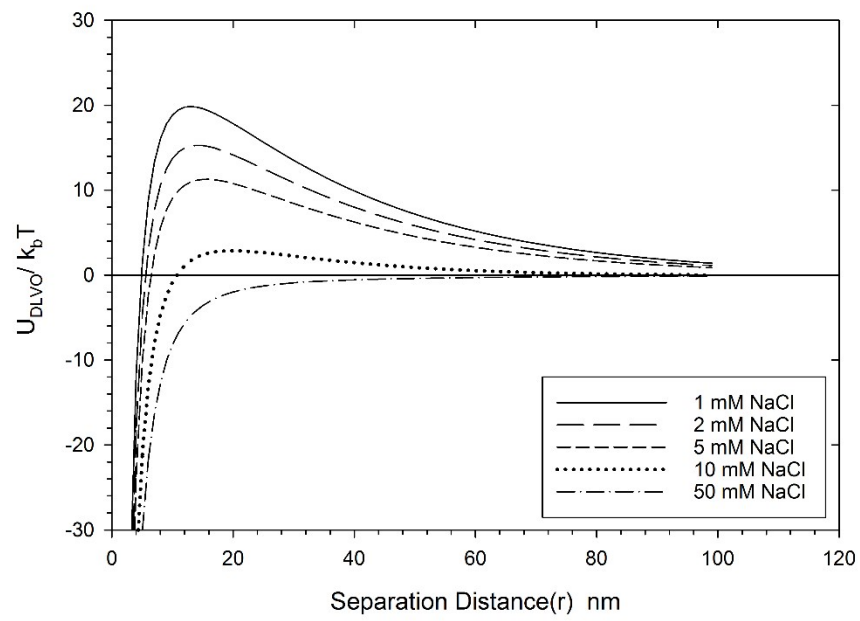
**Fig. S4**  $\tan(\delta)$  at different frequencies plotted versus (a) varying NaCl concentration for a fixed 5 wt% NCC suspension, and (b) varying NCC wt% for a fixed 0.01 M NaCl concentration. 0.0001 M NaCl represents samples with zero added salt.



**Fig. S5** The yielding behaviour of 5wt% (presumably gel) and 9 wt% (presumably attractive glass) NCC suspension with 50 mM NaCl.



**Fig. S6** Creep (strain-time) curve of 9 wt% NCC at 0.5 Pa stress and onset of relaxation at 300 s.



**Fig. S7** DLVO interaction energy for NCC particles calculated from equation 1 at different salt concentrations.