

Supplementary Information

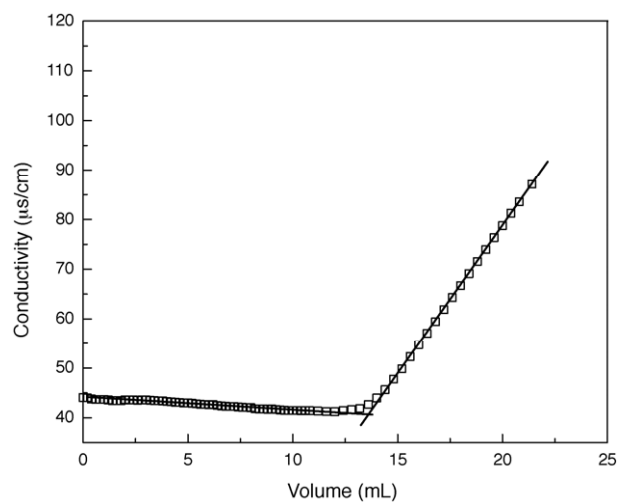


Fig. S1 Conductivity for 0.1% w/w Q-NFC suspension titrated with 8 mM AgNO₃.

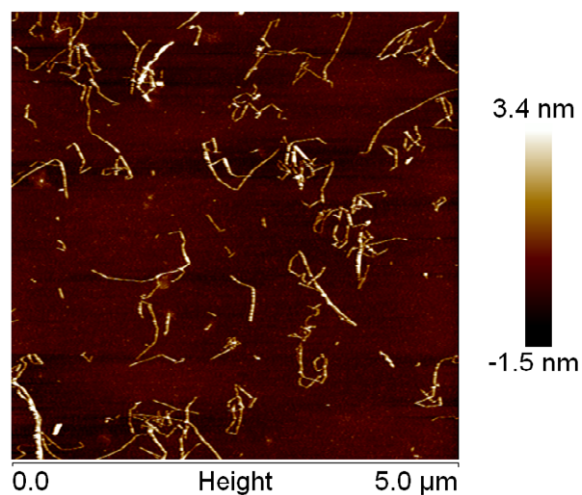


Fig. S2 AFM height image of Q-NFC sample with 2.31 mmol/g trimethylammonium chloride groups. The sample was prepared from further dilute cellulose nanofibril suspensions.

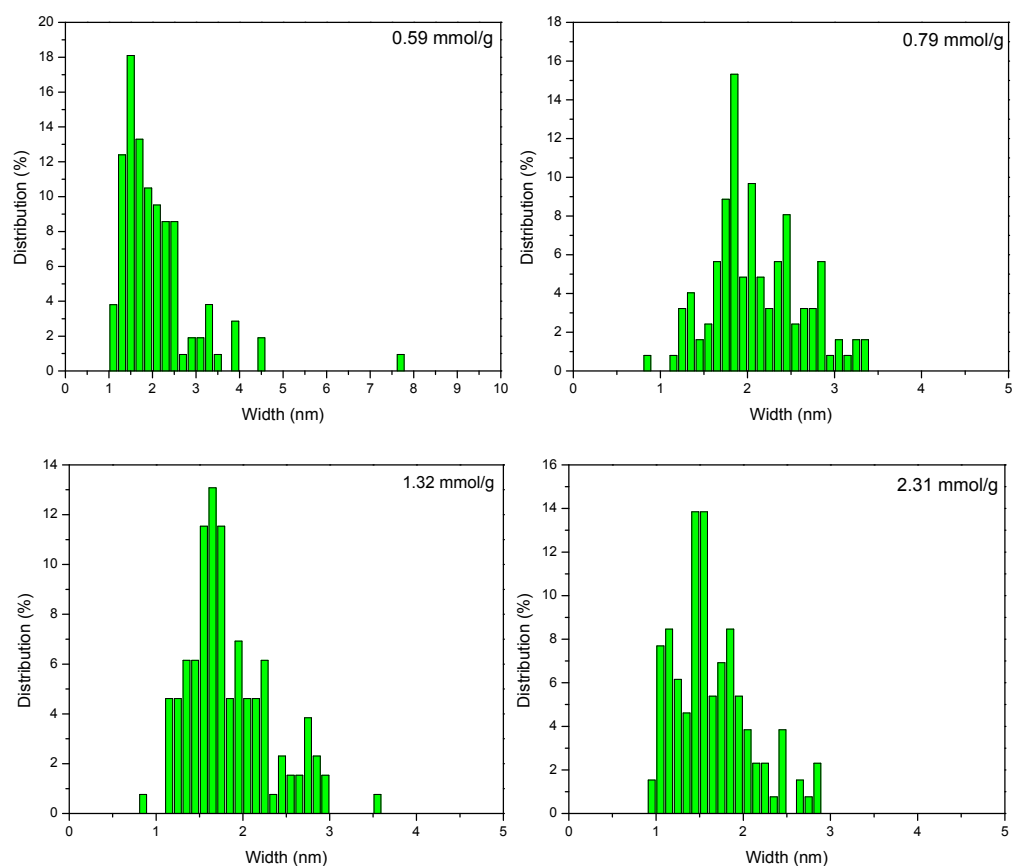


Fig. S3 Histograms showing the size distribution in widths for the Q-NFC nanofibril samples.

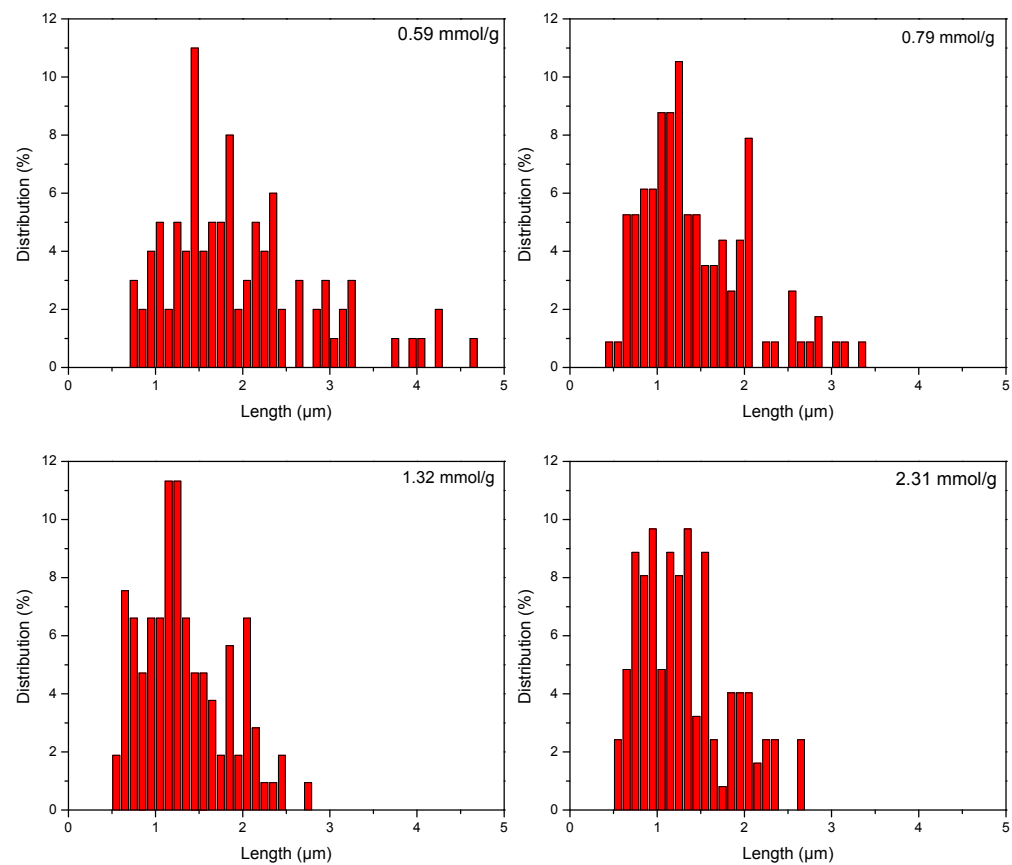


Fig. S4 Histograms showing the size distribution in lengths for the Q-NFC nanofibril samples.