

SUPPORTING INFORMATION

Effect of catalyst and oxidant concentrations in a TEMPO oxidation system on the production of cellulose nanofibers

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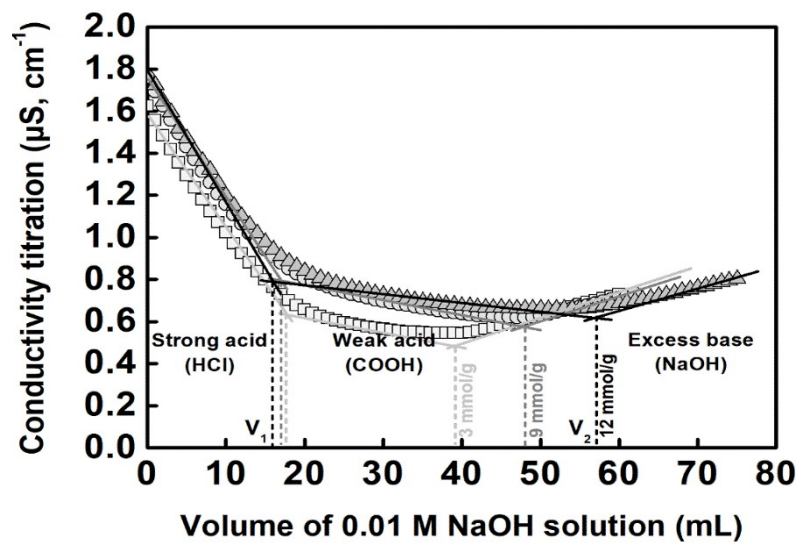


Fig. S1 Conductometric titration curves of 0.5 wt.% TOCs suspension with different carboxylate content.

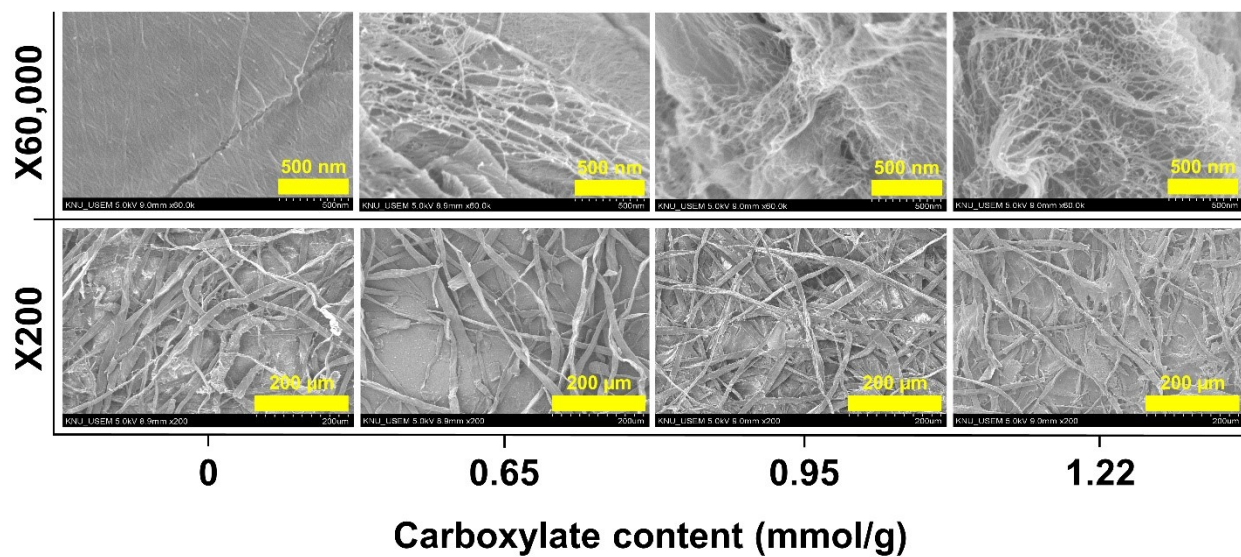


Fig. S2 Surface images of TOCs suspension for different carboxylate contents.

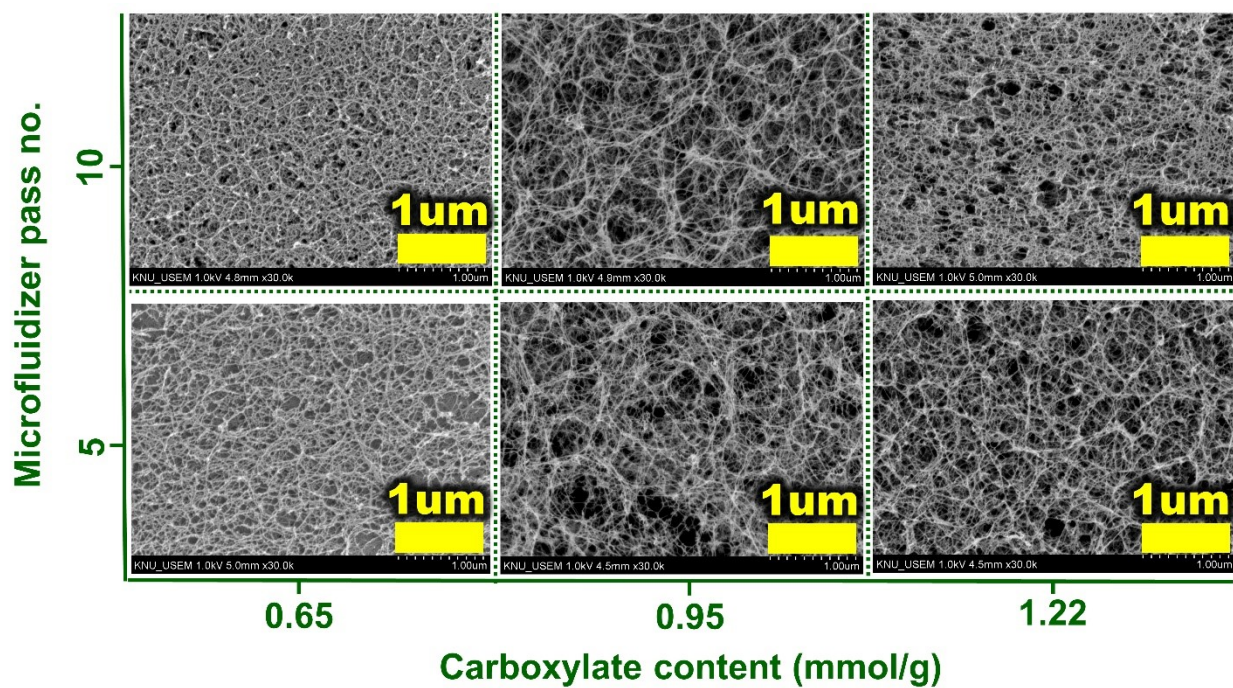


Fig. S3 SEM images of the particles in TEMPO-oxidized and mechanically disintegrated TOCN suspensions with carboxylate contents of 0.65, 0.95 and 1.22 mmol/g.

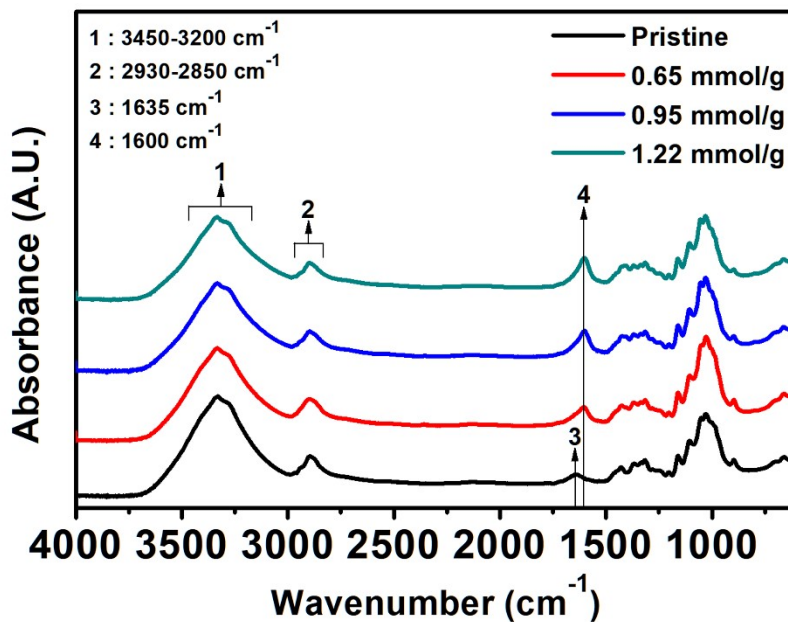


Fig. S4. FTIR spectra of pristine and TEMPO oxidized cellulose with different carboxylate content.

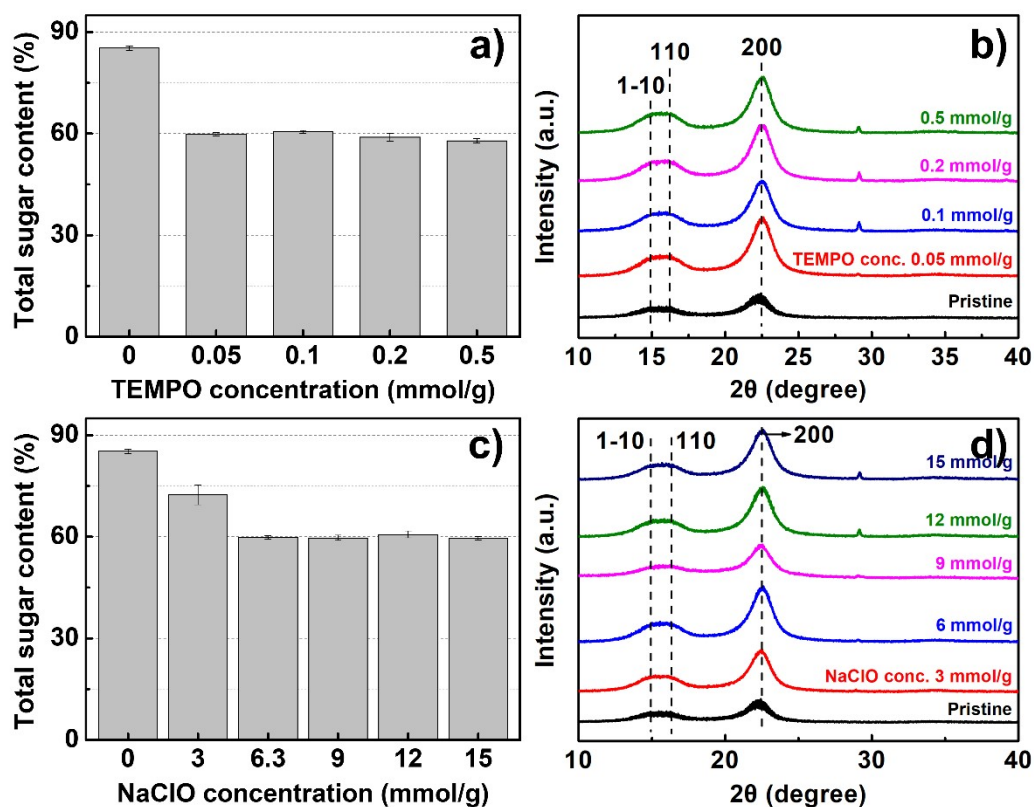


Fig. S5 Total content of sugar in TOCs for various concentrations of (a) TEMPO and (c) NaClO with (b) and (d) corresponding X-ray diffraction patterns.

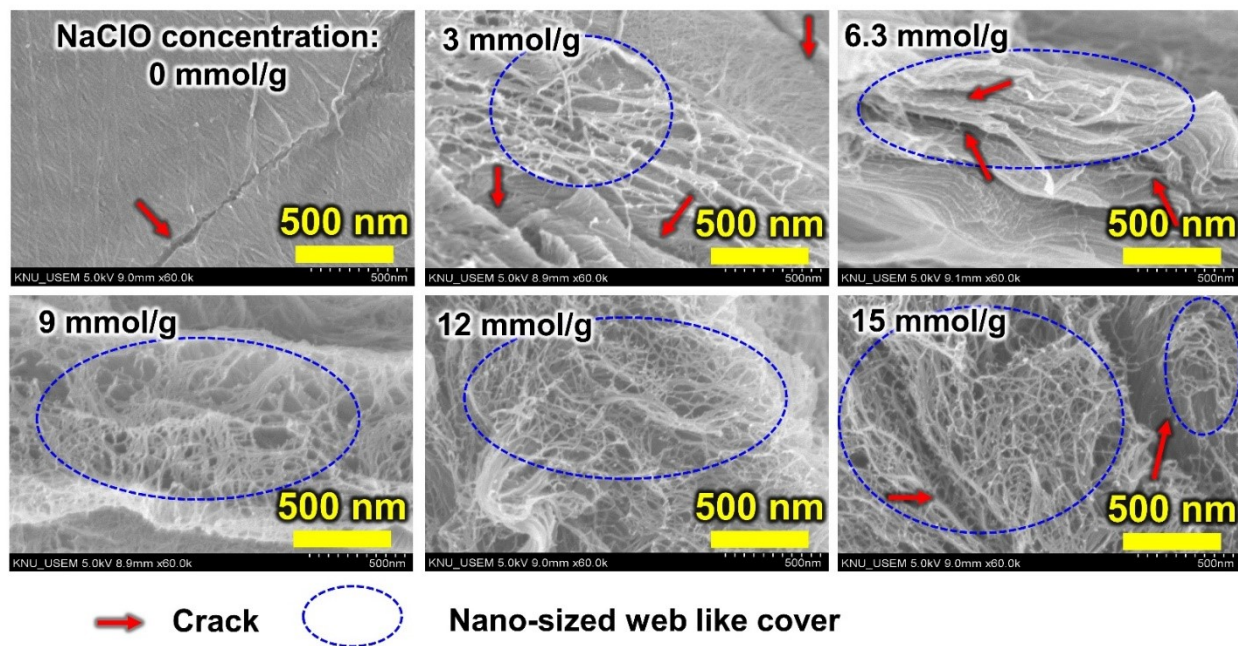


Fig. S6. Morphological changes on the surface of TEMPO-oxidized cellulose.