Electronic Supplementary Information

for

Cooxidant-free TEMPO-mediated Oxidation of Highly Crystalline Nanocellulose in Water

Daniel O. Carlsson, Jonas Lindh, Leif Nyholm, Maria Strømme and Albert Mihranyan

FTIR

FTIR spectra were collected as described in the main article and are shown in Fig. S1.

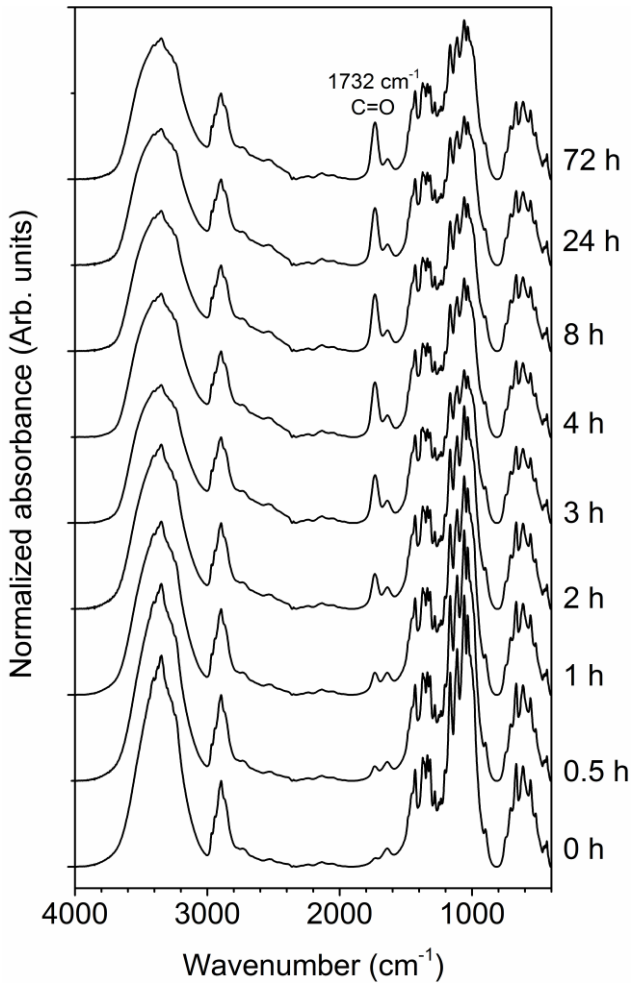

Fig. S1. FTIR spectra of the investigated samples, the number of hours on the right-hand side denote oxidation duration.

N_2 sorption isotherms

The BET specific surface areas as well as BJH total pore volumes and pore size distributions were derived from the isotherms shown in Fig. S2. All isotherms display a small hysteresis, indicating that the samples have pores up to ~100 nm in diameter, but no limiting adsorption at high relative pressures, indicating that larger pores may be present as well.[1]

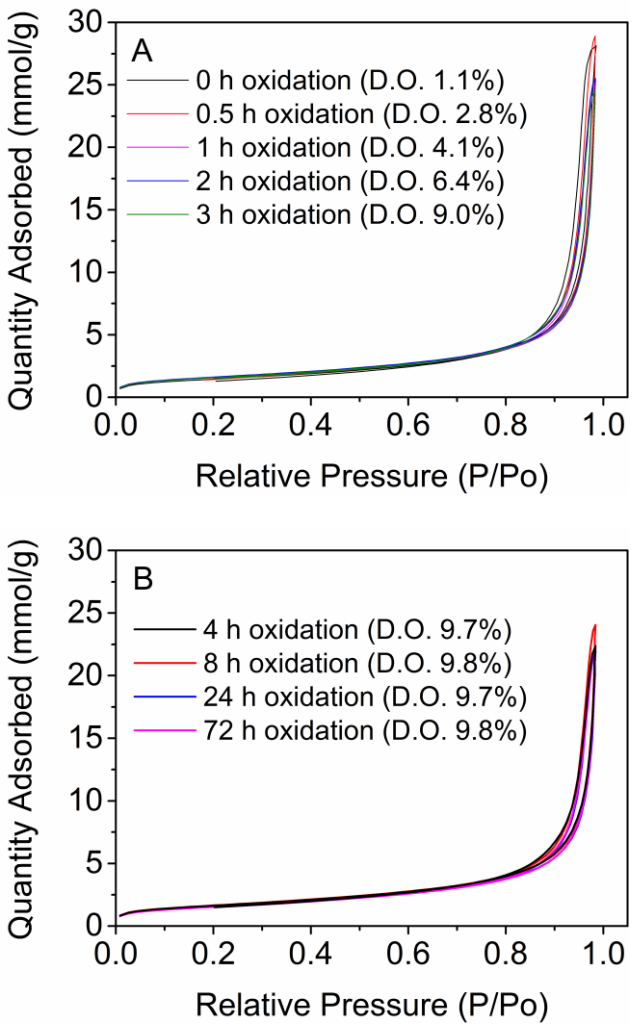

Fig. S2. N_2 sorption isotherms.

Reference

1. R. Pierotti and J. Rouquerol, *Pure Appl. Chem.*, 1985, **57**, 603-619.