

Supporting Information

Effect of oxidation on cellulose and water structure: a molecular dynamics simulation study

Sathish Kumar Mudedla^a, Maisa Vuorte^a, Elias Veijola^b, Kaisa Marjamaa^c,
Anu Koivula^c, Markus B. Linder^b, Suvi Arola^{b,d}, Maria Sammalkorpi^{a,b,*}

^a*Department of Chemistry and Materials Science, School of Chemical Engineering, Aalto University, P.O. Box 16100, FI-00076 Aalto, Finland*

^b*Department of Bioproducts and Biosystems, School of Chemical Engineering, Aalto University, P.O. Box 16100, FI-00076 Aalto, Finland*

^c*VTT Technical Research Centre of Finland Ltd., Industrial Biotechnology and Food Solutions, Solutions for Natural Resources and Environment, Espoo, Finland*

^d*VTT Technical Research Centre of Finland Ltd., Biomass Processing and Products, Solutions for Natural Resources and Environment, Espoo, Finland*

The Supporting Information consists of root mean square deviation (RMSD) of the cellulose crystal coordinates calculated from the simulations (Figure S1), a zoom of main manuscript Figure 11 cellobionic acid (DP2ox) and cellohexaose (DP6) peak region, and the full chromatogram data set.

*Corresponding author

Email address: maria.sammalkorpi@aalto.fi (Maria Sammalkorpi)

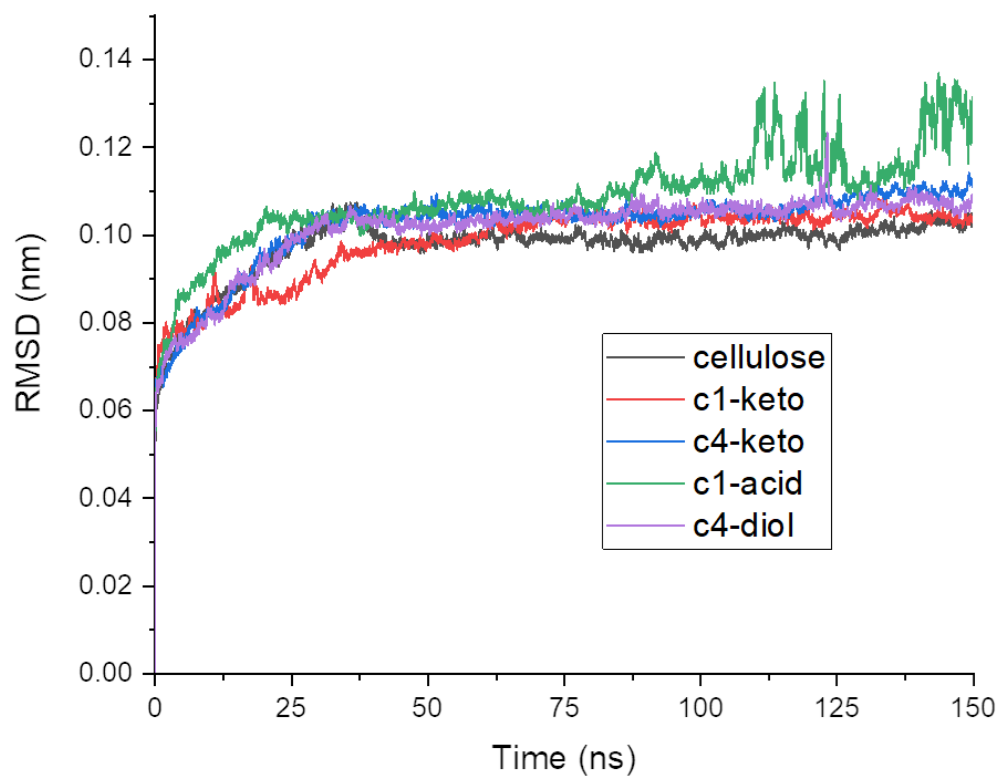


Figure S1: Root mean square deviation (RMSD) of intact and oxidized cellulose crystals in the molecular dynamics simulations.

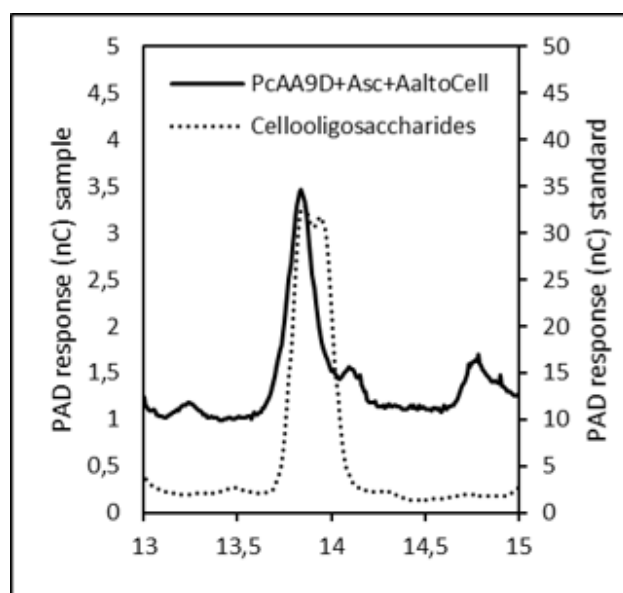


Figure S2: Zoom corresponding to main manuscript Figure 11 cellobionic acid (DP2ox) and cellohexaose (DP6) peak region.

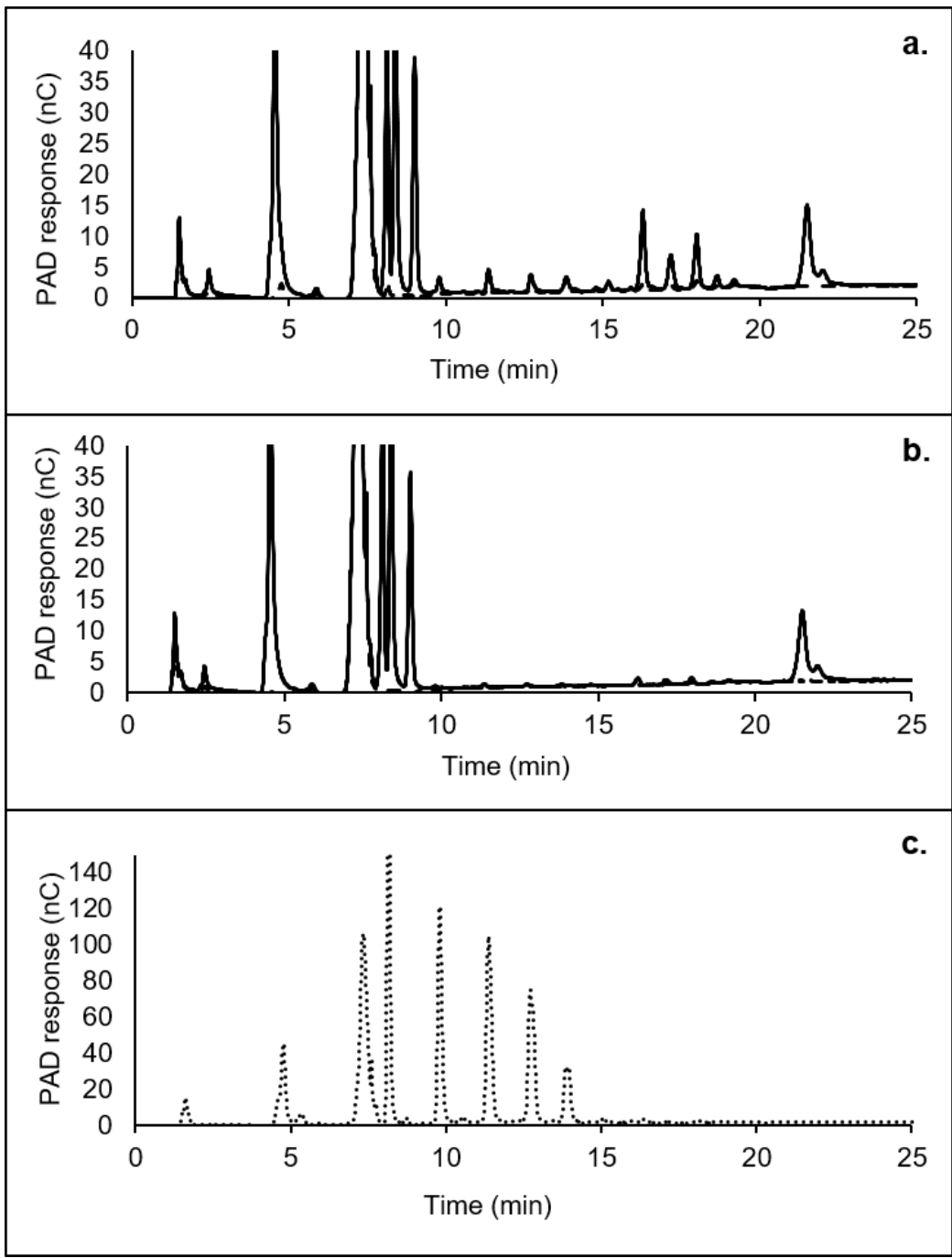


Figure S3: Full chromatogram data set.