

# Supplementary: Injection Molding of Thermoplastic Cellulose Esters and Their Compatibility with POLY(lactic Acid) and Polyethylene

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## S1. Size exclusion chromatography (SEC)

The relative molar masses of the pulp samples were determined by size exclusion chromatography (SEC) measurements in 0.8% LiCl/DMAc eluent (0.36 mL/min, 80 °C) using MiniMix columns equipped with a Waters 2414 Refractive Index Detector (Waters, Milford, CT, USA). The relative molar mass distributions and average molar masses ( $M_n$ ,  $M_w$ ) were calculated against Pullulan Standards (6,100–1,600,000 g/mol). For SEC measurements, the pulp samples were dissolved in an 8% LiCl/DMAc, according to the solvent exchange method, with ethyl isocyanate derivatization to enhance the dissolution.

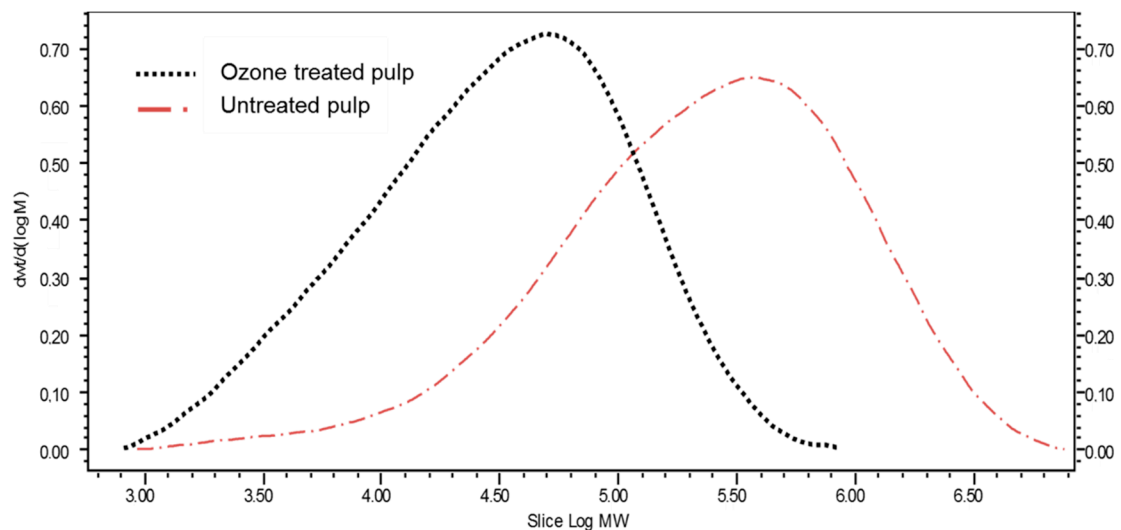
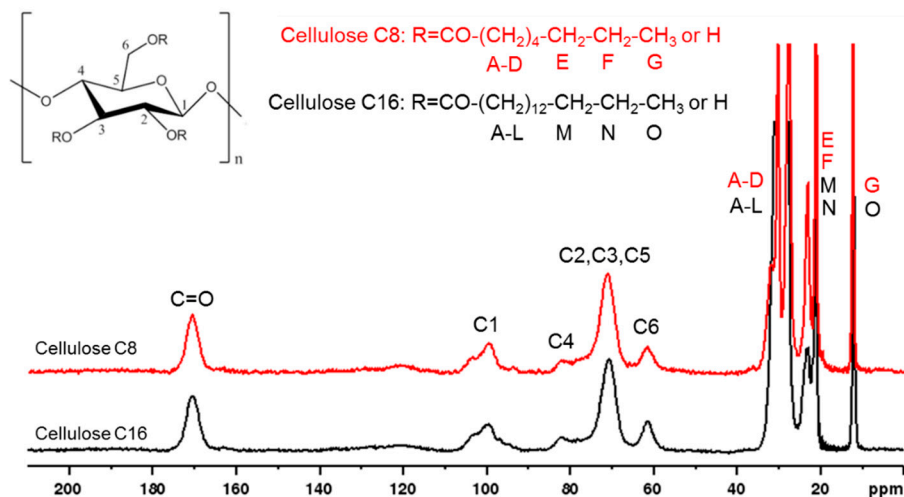
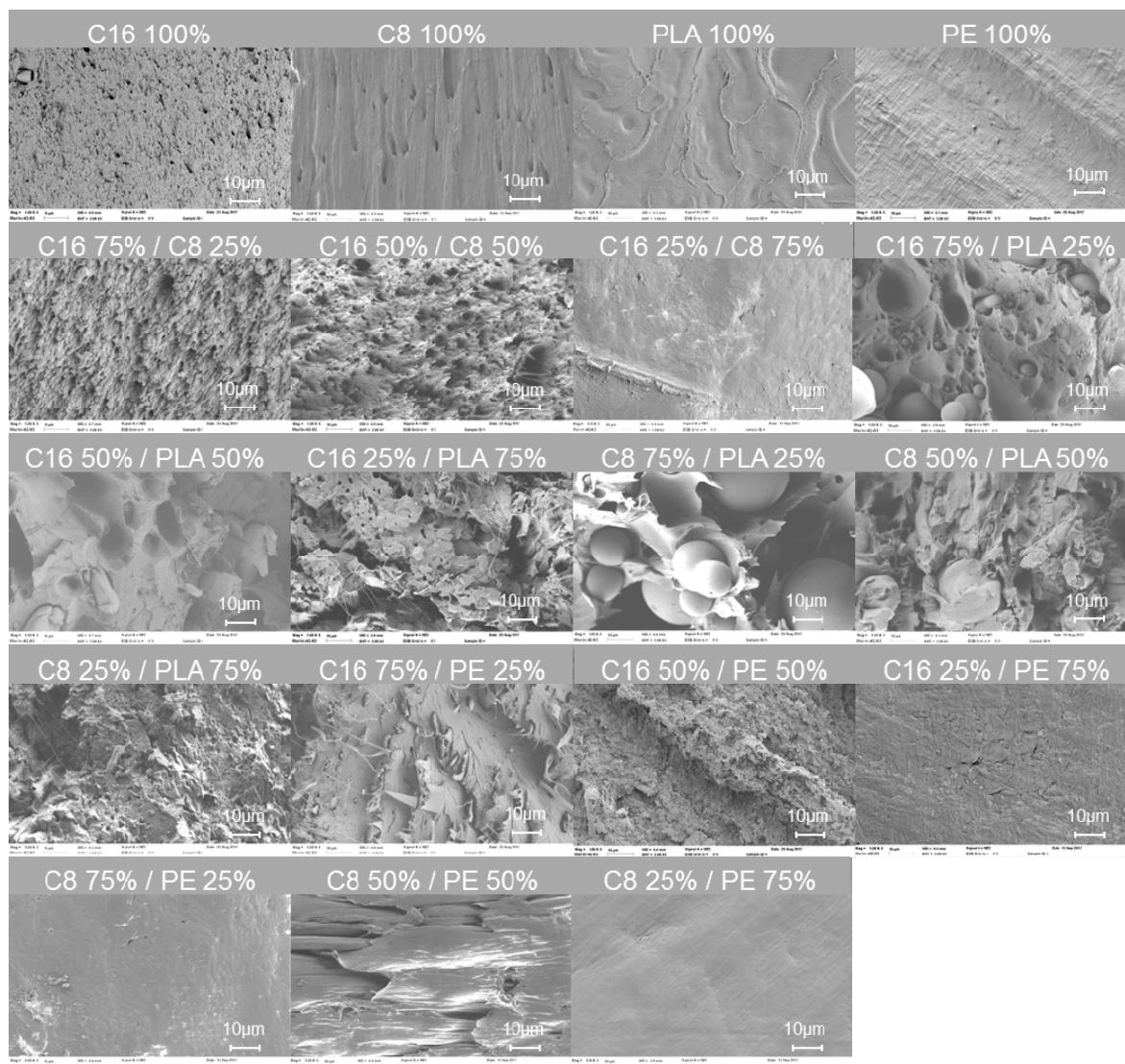


Figure S1. Size exclusion chromatography (SEC) image of untreated and ozone treated pulps.

## S2. Solid state Nuclear magnetic resonance (ssNMR)



**Figure S2.** Solid state nuclear magnetic resonance (ssNMR) spectra of cellulose C8 and C16.**S3. Scanning Electron Microscopy (SEM)****Figure S3.** SEM images of tested materials at 1000× magnification. Scale bar = 10 µm.

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