

Supplementary

Preparation and Characterization of 3D-Printed Biobased Composites Containing Micro- or Nanocrystalline Cellulose

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1. FT-IR analysis

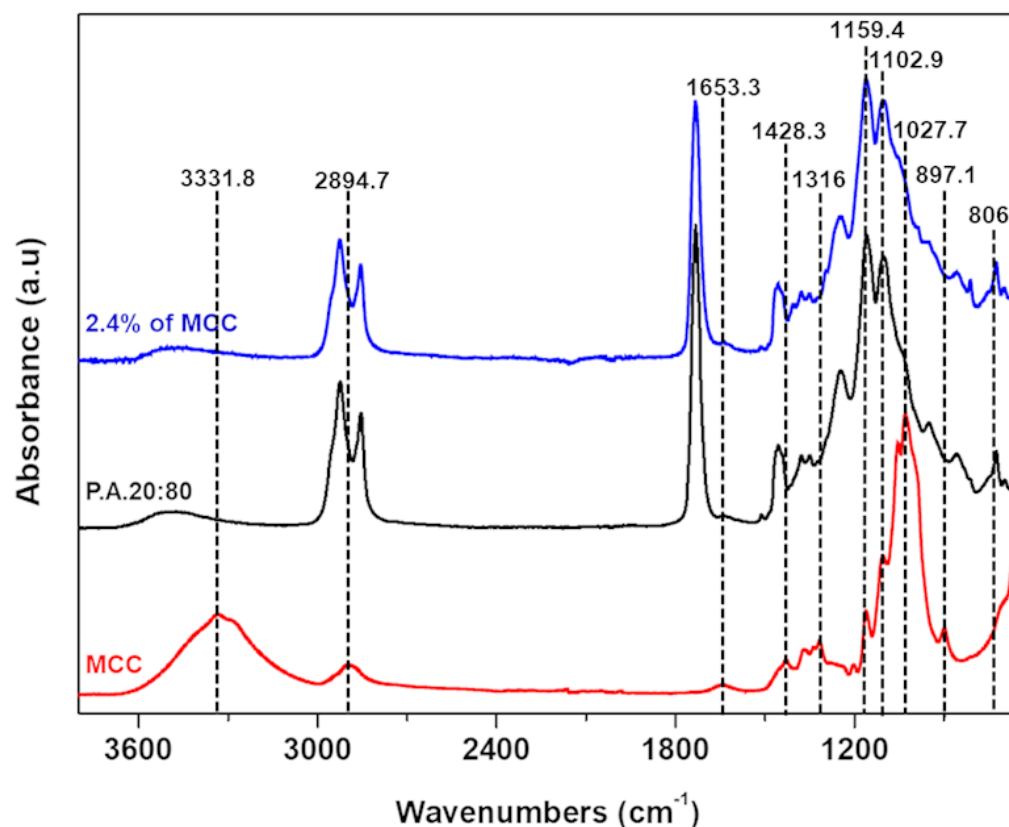


Figure S1: FT-IR spectra of MCC, P.A.20:80, and P.A.20:80 containing 2.4 wt.% of MCC.

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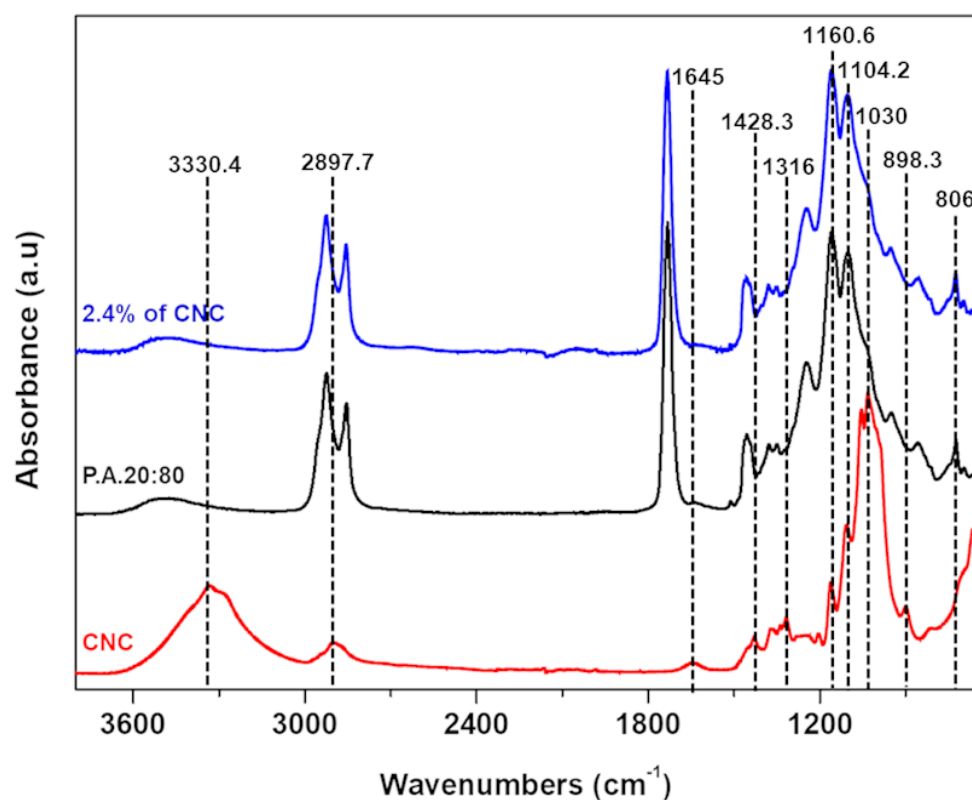


Figure S2: FT-IR spectra of CNC, P.A.20:80, and P.A.20:80 containing 2.4 wt.% of CNC.

2. Swelling properties

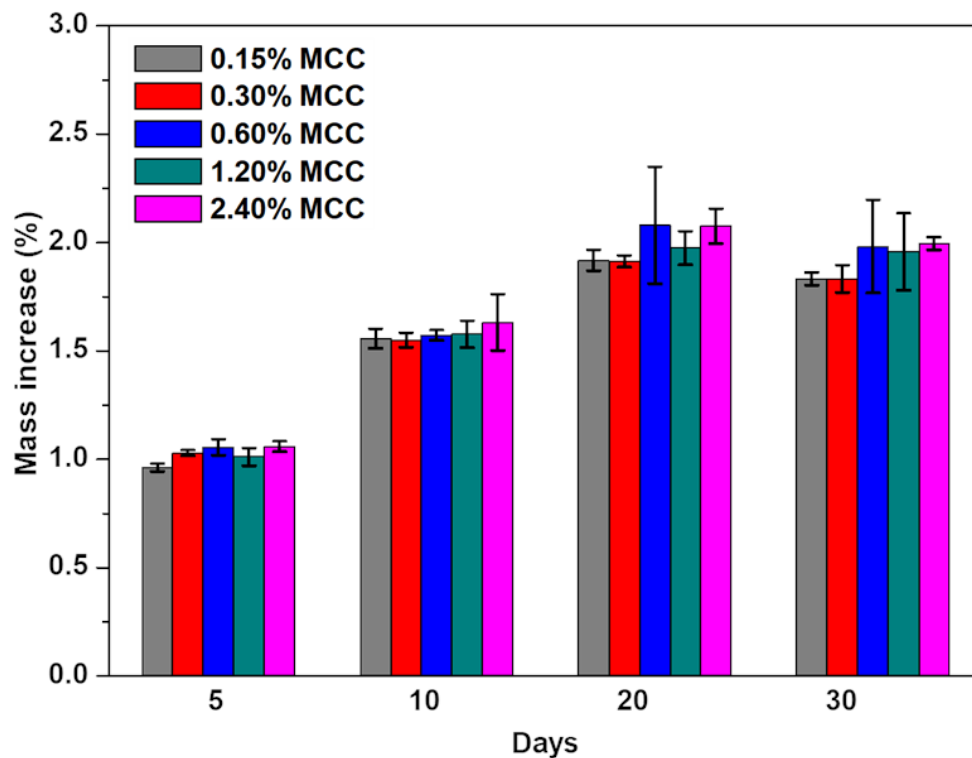


Figure S3: Influence of different MCC mass percentages on the P.A.20:80 swelling after 5, 10, 20 and 30 days.

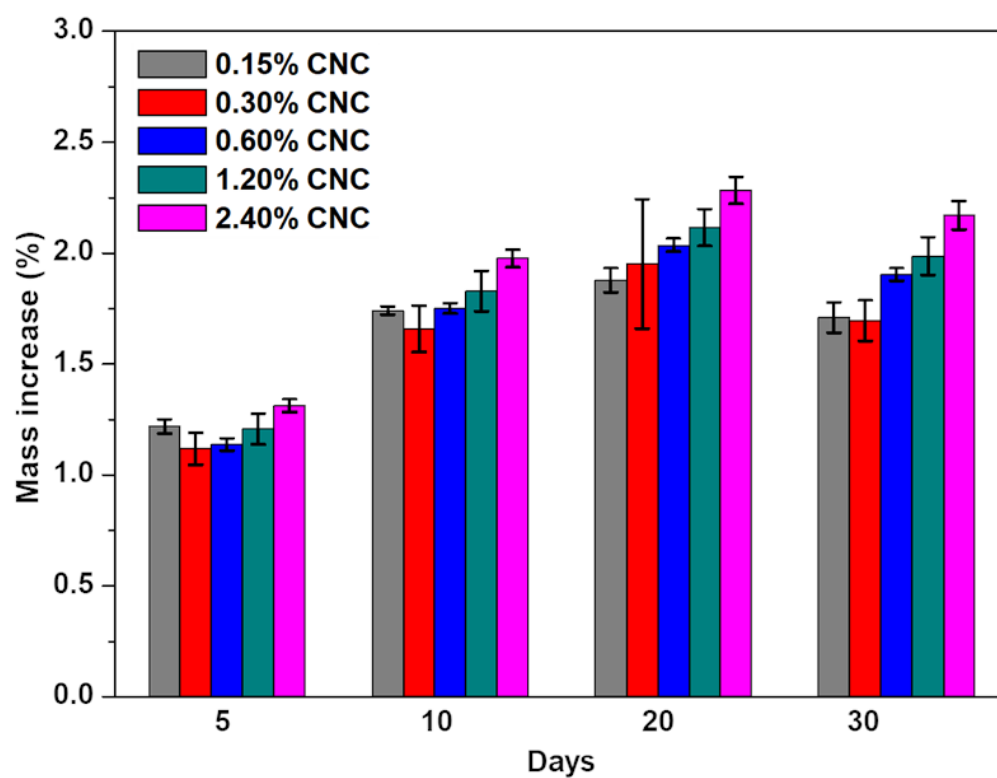


Figure S4. Influence of different CNC mass percentages on the P.A.20:80 swelling after 5, 10, 20 and 30 days.

3. Contact angle measurement

Table S1: Contact angle measurements of 3D-printed samples with different AESO loadings.

| Sample code | Contact angle (°) | Standard deviation |
|-------------|-------------------|--------------------|
| PEGDA | 72.1 | 3.8 |
| P.A.50:50 | 76.8 | 2.7 |
| P.A.40:60 | 78.5 | 0.8 |
| P.A.30:70 | 88.6 | 0.9 |
| P.A.20:80 | 93.0 | 2.3 |
| AESO | 92.0 | 1.6 |