

Supplementary data

Transformation of sugar maple bark through catalytic organosolv pulping

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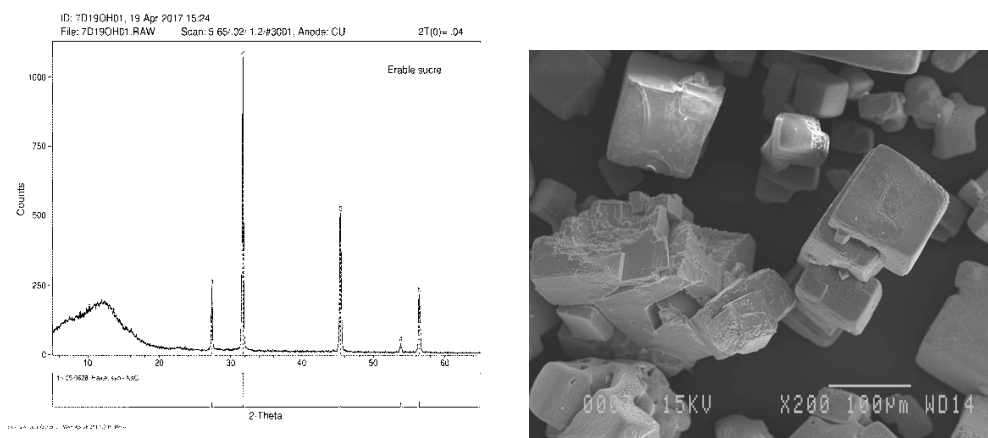


Figure S1. XRD spectrum and MEB image of halite crystal

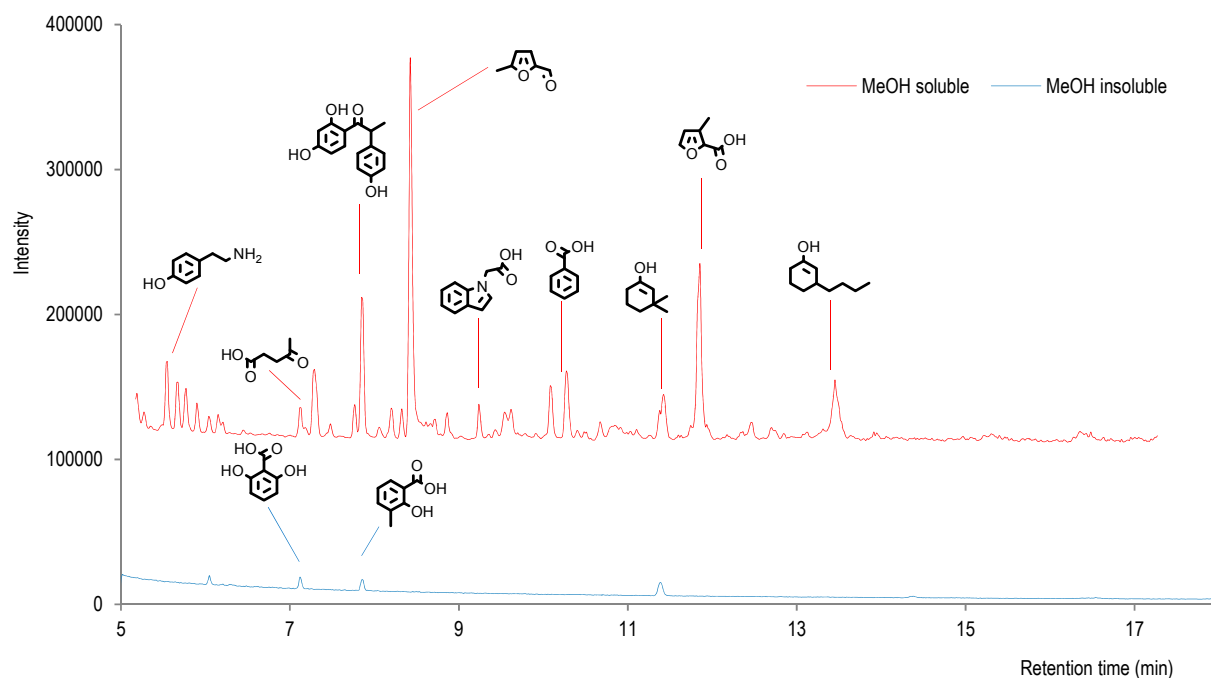


Figure S2. Comparative GC-MS analysis of sugar maple extractives present in methanol soluble fraction (red) and methanol insoluble fraction (blue)- after silylation.

Table S1. Elemental ICP analysis of organosolv lignin from bark

Elements	Lignin From bark (mg/kg)
Ca	75
Fe	1916
K	N.D.
Mg	19
P	N.D.
Na	74
Zn	18

N.D.: Not detected

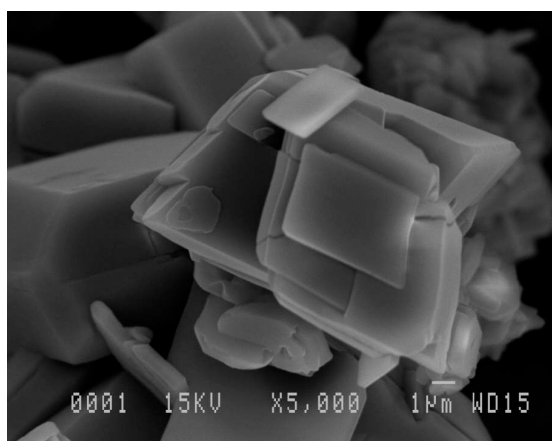
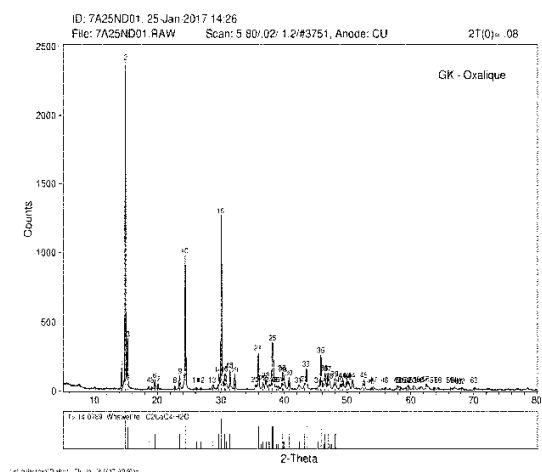


Figure S3. XRD spectrum and MEB image for Calcium oxalate

Table S2. Comparative elemental ICP composition in ash from bark and cellulosic pulp

Elements	Ash from bark (mg/kg)	Cellulosic pulp From bark (mg/kg)
Ca	87391	52702
Fe	193	4860
K	28296	225
Mg	8785	40
P	3505	489
Na	N.D.	N.D.
Zn	N.D.	N.D.

N.D.: Not detected

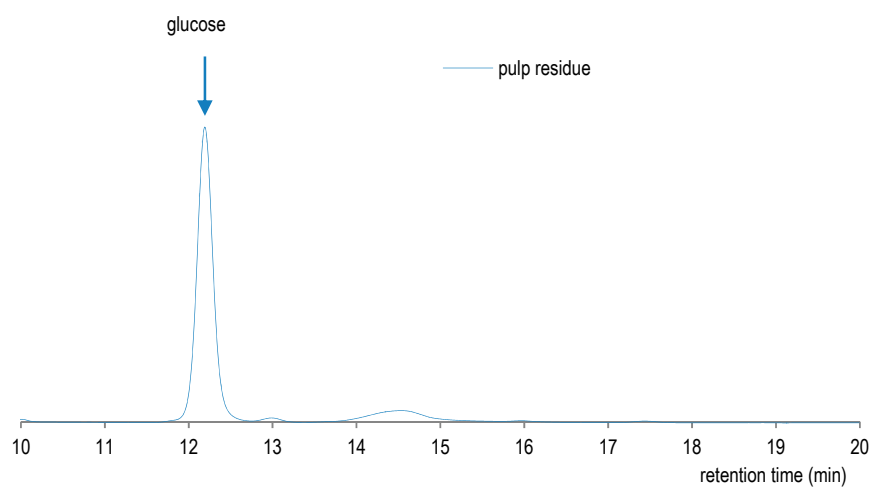


Figure S4. HPLC analysis for cellulosic pulp after complete hydrolysis

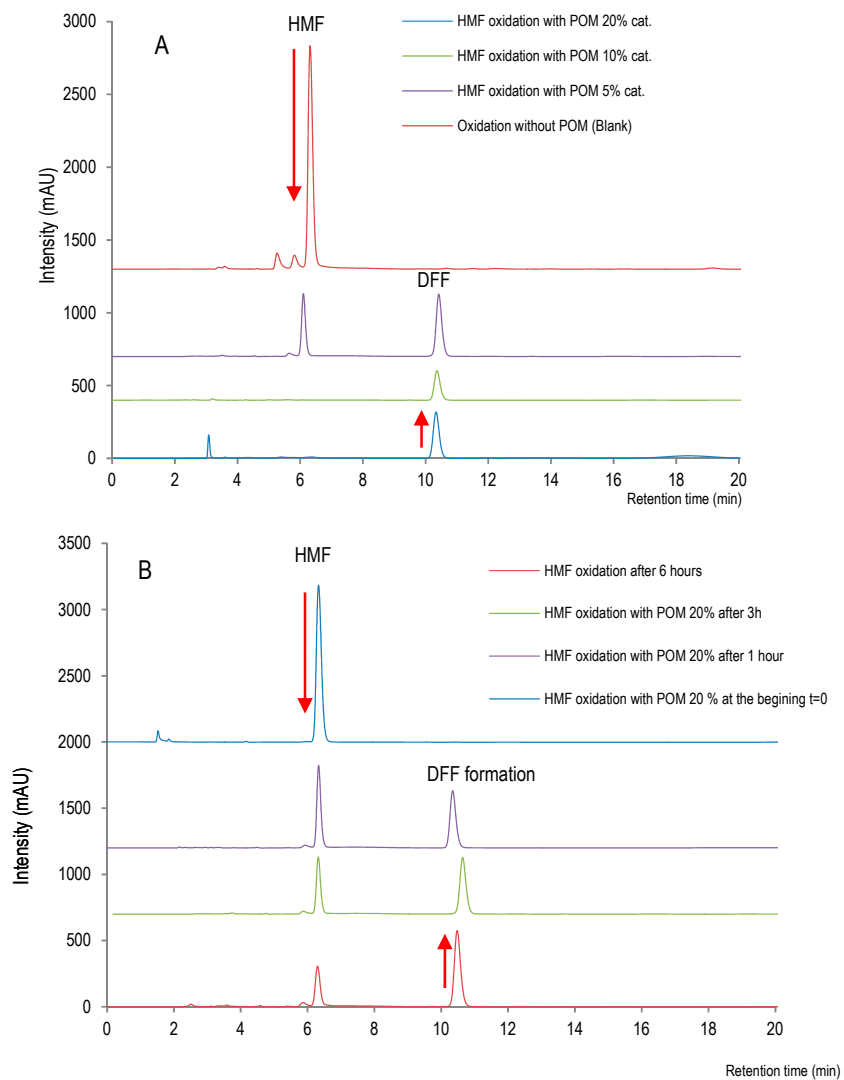


Figure S5: HPLC analysis of HMF oxidation reaction with POM as activating agent. A: activating agent loading effect on DFF production after 12 hours at 130 °C; B: Kinetic of DFF production according to time reaction.