

Supplementary material

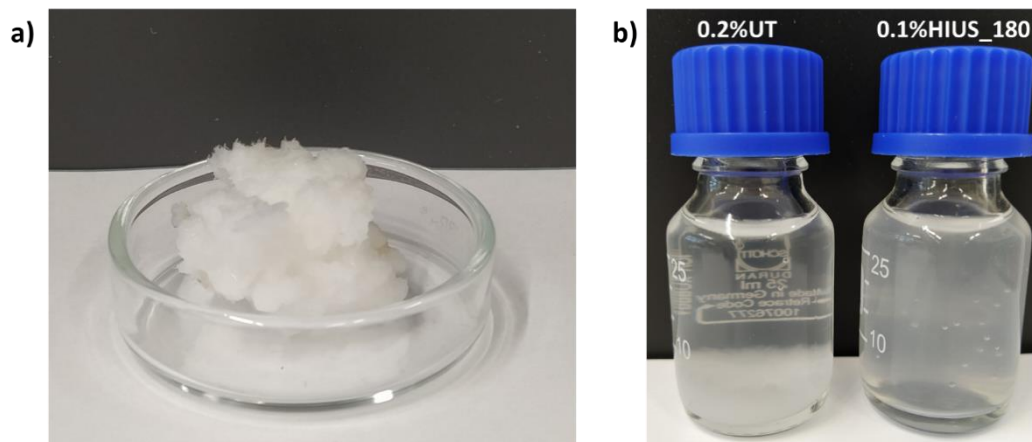


Figure S1. Photos of cellulose isolated from hop stems (a) and dispersions of cellulose after mechanical disintegration (0.2%UT) and 180 min of HIUS treatment (0.1%HIUS_180) (b).

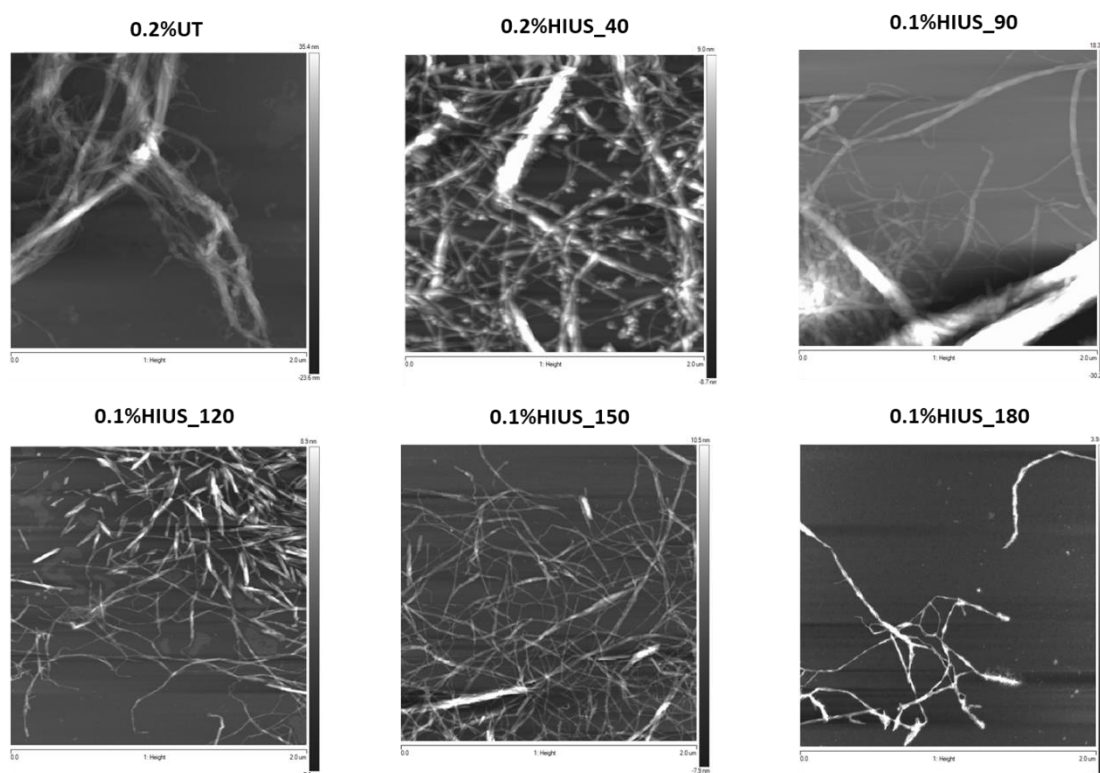


Figure S2. Representative atomic force microscope (AFM) height images of cellulose isolated from hop stems after different duration of HIUS treatment. The image dimension is 2 μm x 2 μm.

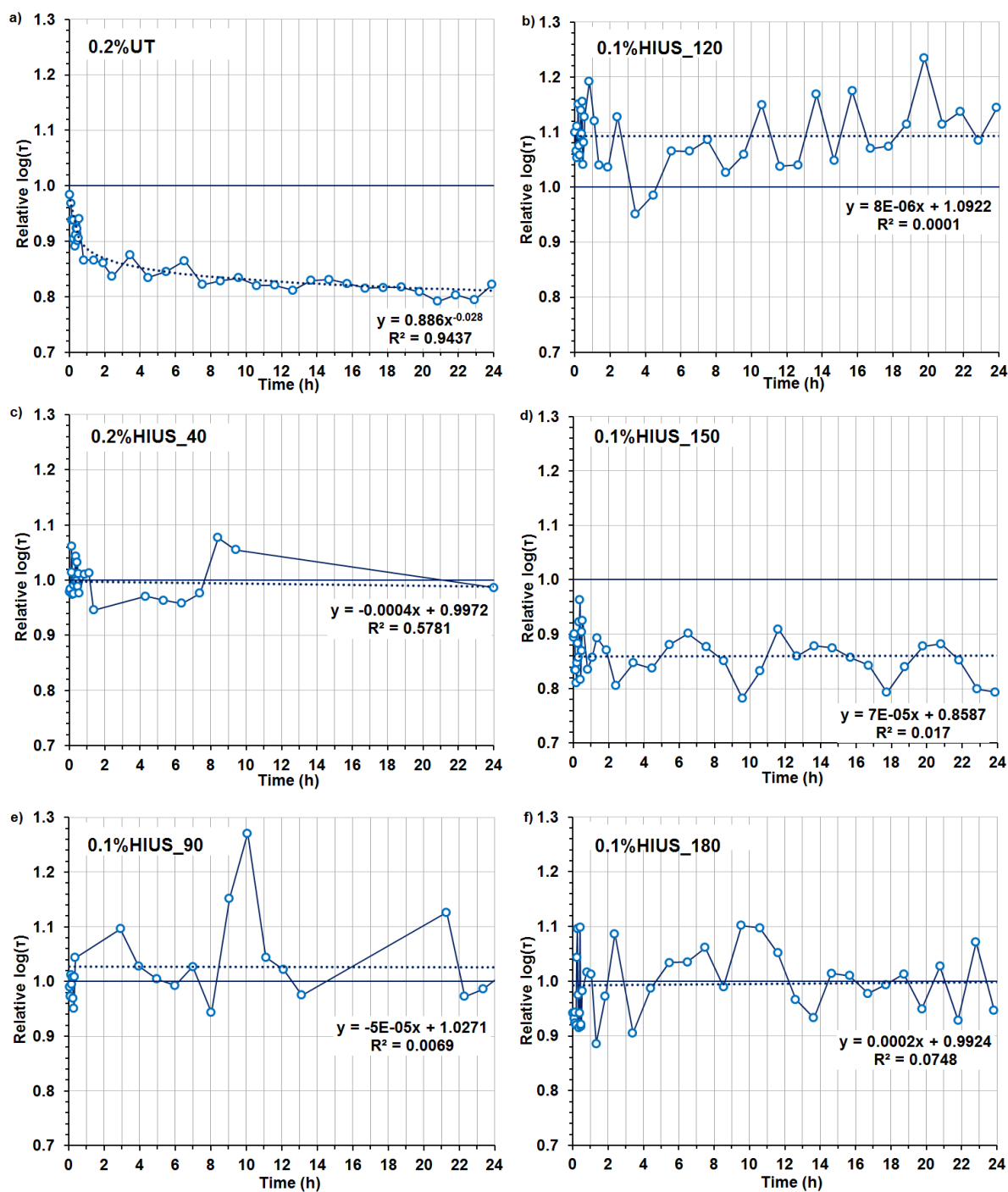


Figure S3. The values of relative $\log(\tau)$ obtained for particular sample (a-f) during the first 24 hours of experiment; solid line marks relative $\log(\tau)$ equal to 1; dotted line shows the fitted trend line.