

Supplementary Information

Self-Alignment Sequence of Colloidal Cellulose Nanofibers Induced by Evaporation from Aqueous Suspensions

Kojiro Uetani^{1,*}, Shogo Izakura², Takaaki Kasuga², Hirotaka Koga¹ and Masaya Nogi¹

1 Institute of Scientific and Industrial Research (ISIR), Osaka University, Mihogaoka 8-1, Ibaraki-shi, Osaka 567-0047, Japan; uetani@eco.sanken.osaka-u.ac.jp (K.U.); hkoga@eco.sanken.osaka-u.ac.jp (H.K.); nogi@eco.sanken.osaka-u.ac.jp (M.N.)

2 Graduate School of Engineering, Osaka University, Mihogaoka 8-1, Ibaraki-shi, Osaka 567-0047, Japan; izakura.shogo@chem.eng.osaka-u.ac.jp (S.I.), tkasuga@eco.sanken.osaka-u.ac.jp (T.K.)

* Correspondence: uetani@eco.sanken.osaka-u.ac.jp; Tel.: +81-6-6879-8441

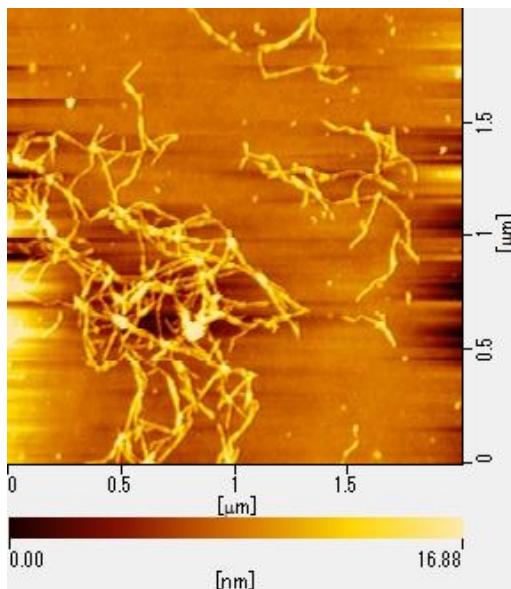


Figure S1. AFM image of the CNFs used in this study.

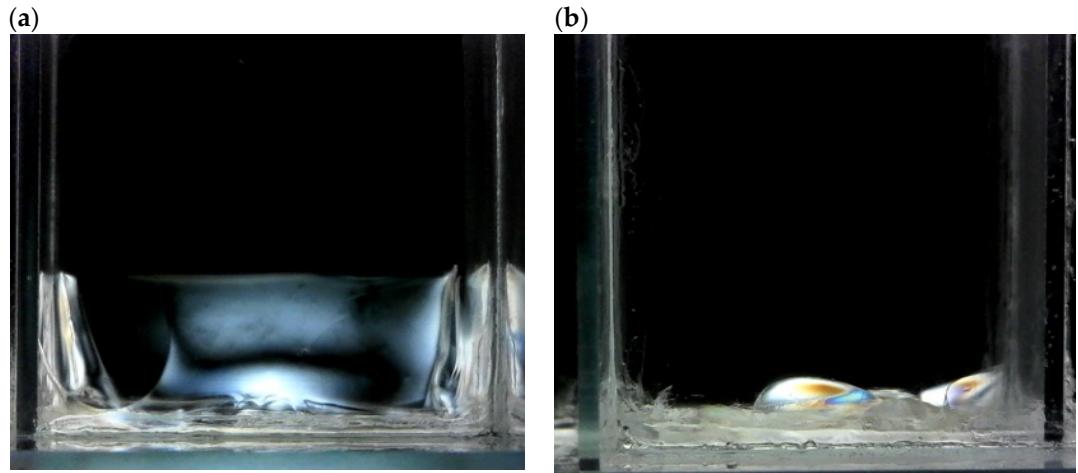


Figure S2. Birefringence images of the dried nanopapers in the y direction. (a) Glass cell without hydrophobization treatment showing CNFs adhered to the wall. (b) Hydrophobized cell without CNFs adhered to the walls properly dried to form a nanopaper.

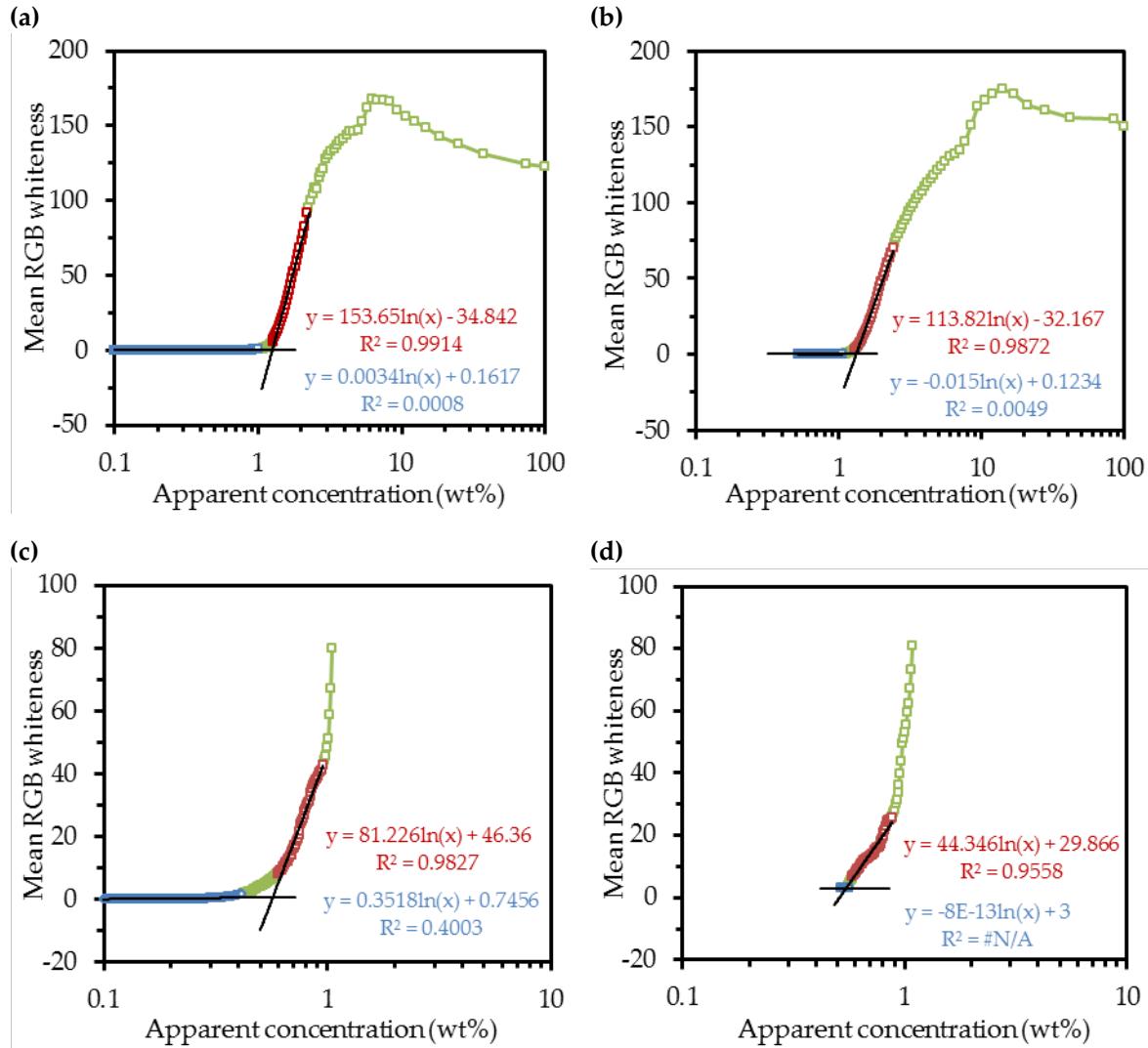


Figure S3. Estimation of the apparent concentration at which birefringence starts to occur by linear fitting. **(a, b)** Suspensions with initial concentrations of 0.087 and 0.52 wt% show birefringence in the *z* direction at 1.26 and 1.33 wt%, respectively. **(c, d)** Suspensions with initial concentrations of 0.087 and 0.52 wt% show birefringence in the *y* direction at 0.57 and 0.55 wt%, respectively.

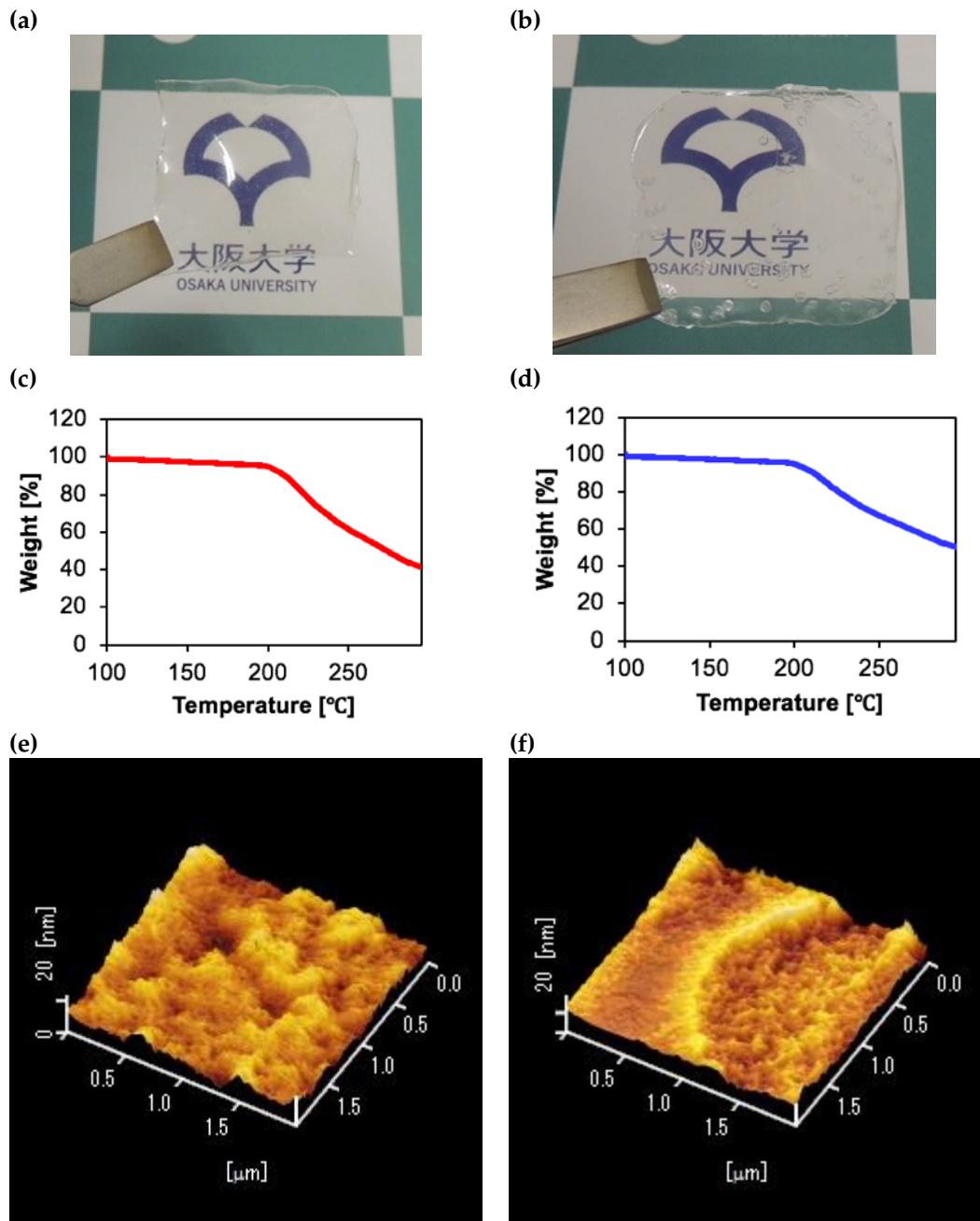


Figure S4. (a, b) Appearance, (c, d) thermogravimetric profiles, and (e, f) AFM images of nanopapers dried from (a, c, e) $\phi_i = 0.087$ wt% and (b, d, f) $\phi_i = 0.52$ wt% suspensions.