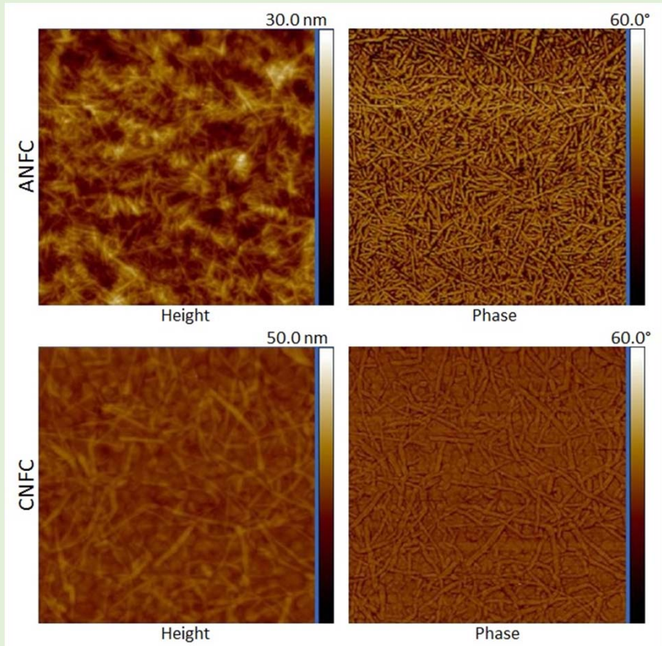
CATIONIC AND ANIONIC NANOFIBRILATED CELLULOSES FOR PAPERMAKING

Sedat Ondaral and Güliz Hocaoğlu

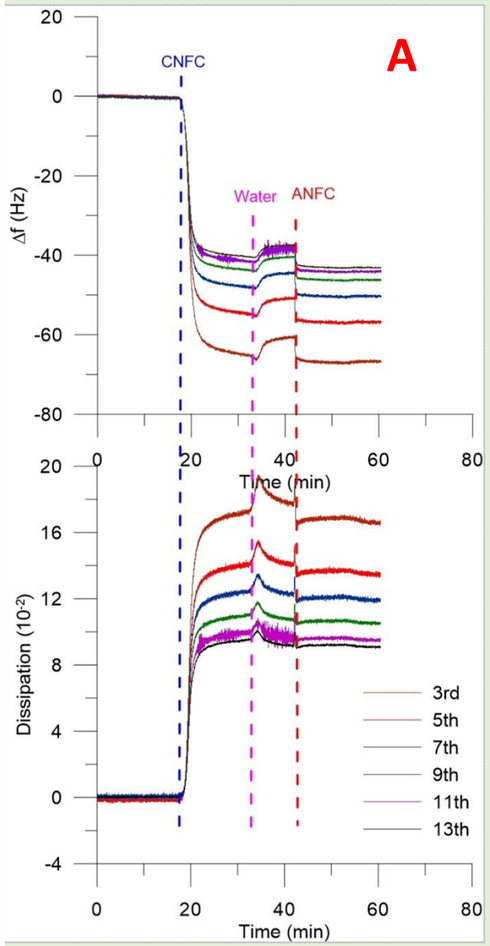
Department of Pulp and Paper Technology, Forets Product Engineering, Faculty of Forestry, Karadeniz Technical University, 61080 Trabzon, Turkey

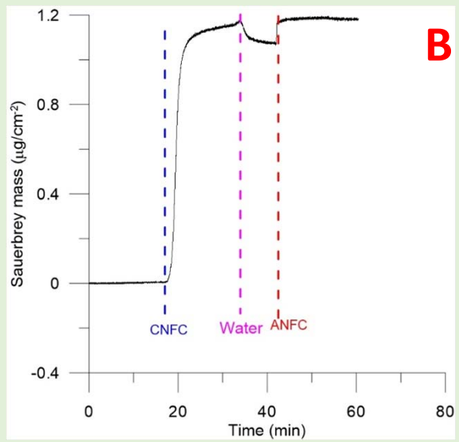
ANFC production: The bleached sulphite fibres were oxidized with TEMPO/NaBr/$NaClO_2$ before passing through APV high pressure homogenizer at 100 bar.

CNFC production: After enymatic and mechanical treatments, fibres were cationically modified with GTMAC before homogenization with APV high pressure homogenizer at 700 bar 10 times.

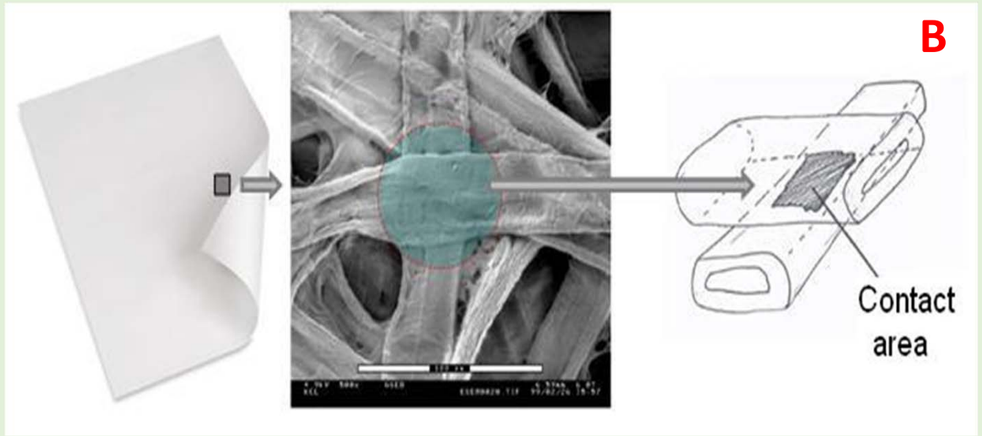


Şekil 3. AFM images of the ANFC and CNFC (1µm x1µm)





Şekil 2. QCM-D data A: Change in frequency and disspation B: Sauerbrey Mass (adsorbed mass) on SiO_2 surface



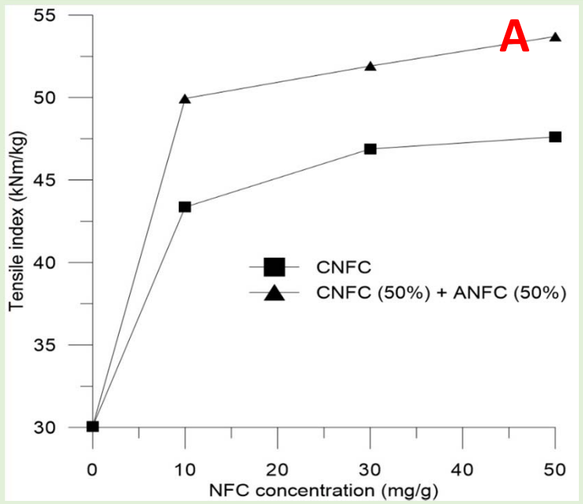


Figure 3. (A)The effect of nanofibrilated celluloses on tensile index of papers (B) Fibre/fibre joint