

Supplementary material

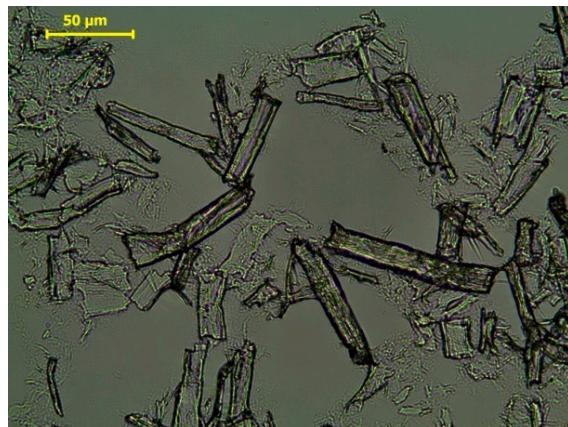
Effect of Oxalic Acid Concentration and Different Mechanical Pre-Treatments on the Production of Cellulose Micro/Nanofibers

Gabriela Adriana Bastida, Carla Natalí Schnell, Paulina Mocchiutti, Yamil Nahún Solier, María Cristina Inalbon, Miguel Ángel Zanuttini and María Verónica Galván *

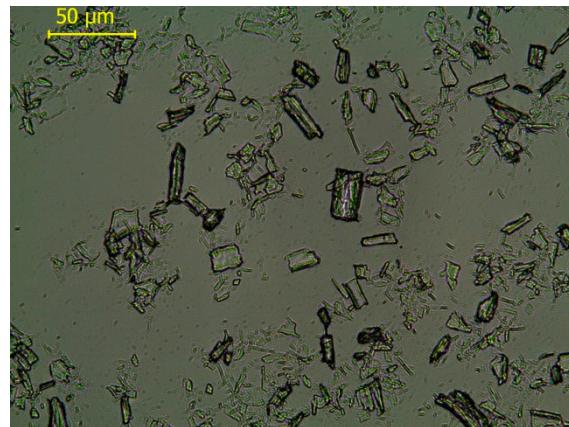
Institute of Cellulosic Technology, Faculty of Chemical Engineering (FIQ-CONICET), National University of the Litoral, Santiago del Estero 2654, S3000AOJ, Santa Fe, Argentina

* Correspondence: vgalvan@fiq.unl.edu.ar; Tel./Fax: +54-342-4520019

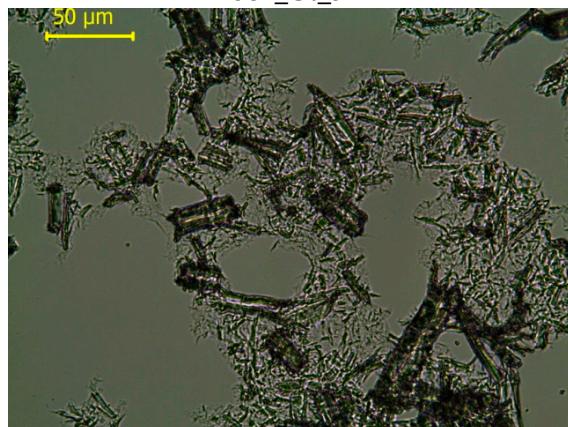
This file includes **Supplementary Figure S1, S2, S3 and S4**



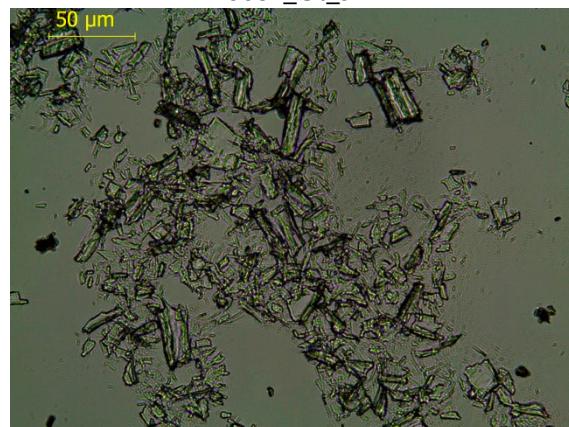
25ox_Ut_5P



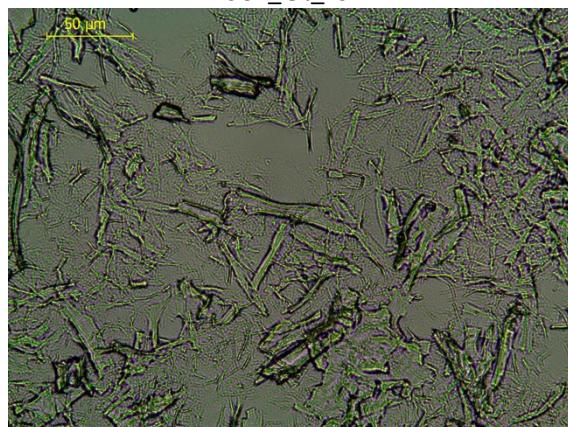
50ox_Ut_5P



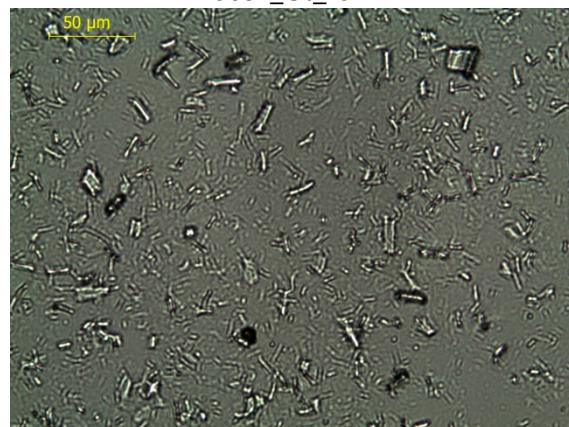
25ox_Ut_15P



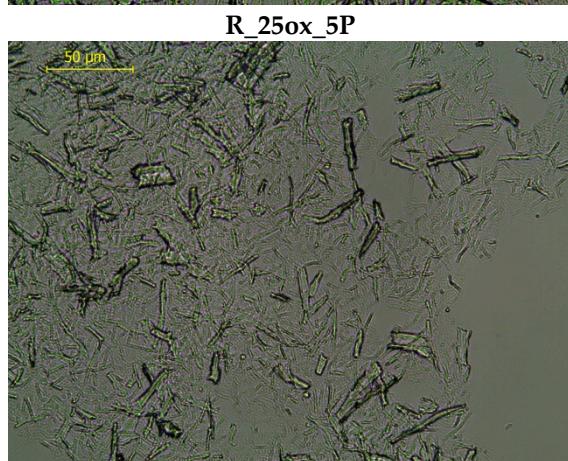
50ox_Ut_15P



R_25ox_5P



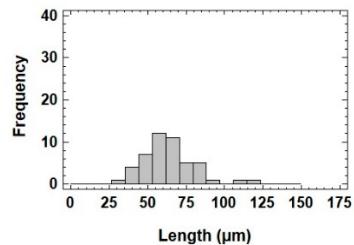
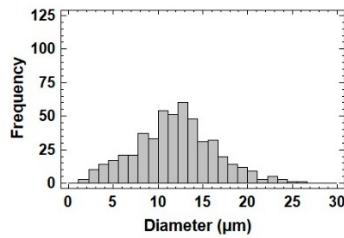
R_50ox_5P



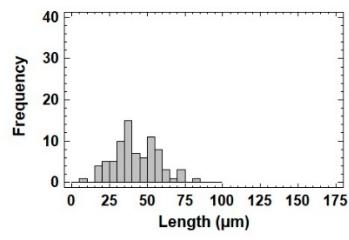
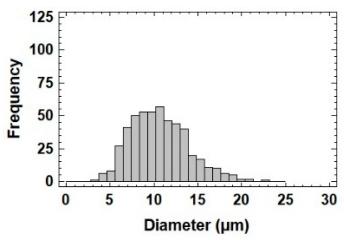
R_25ox_15P



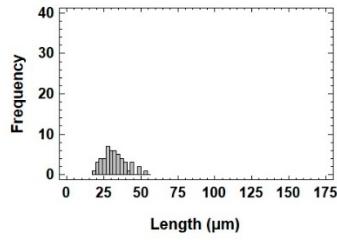
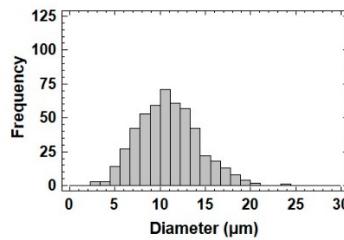
R_50ox_15P



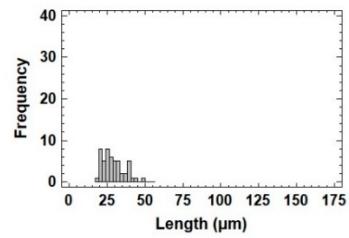
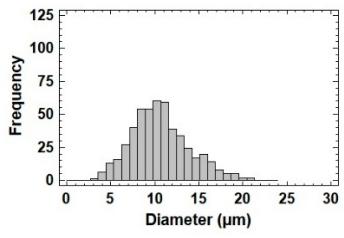
25ox_Ut_5P



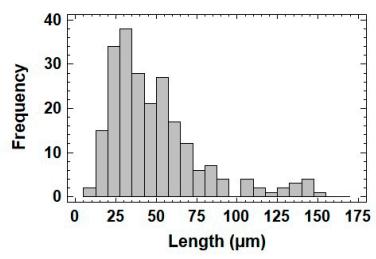
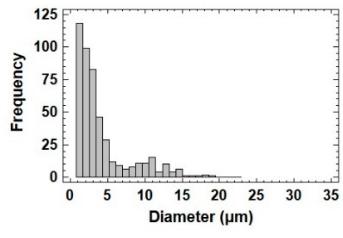
25ox_Ut_15P



50ox_Ut_5P



50ox_Ut_15P



R_25ox_5P

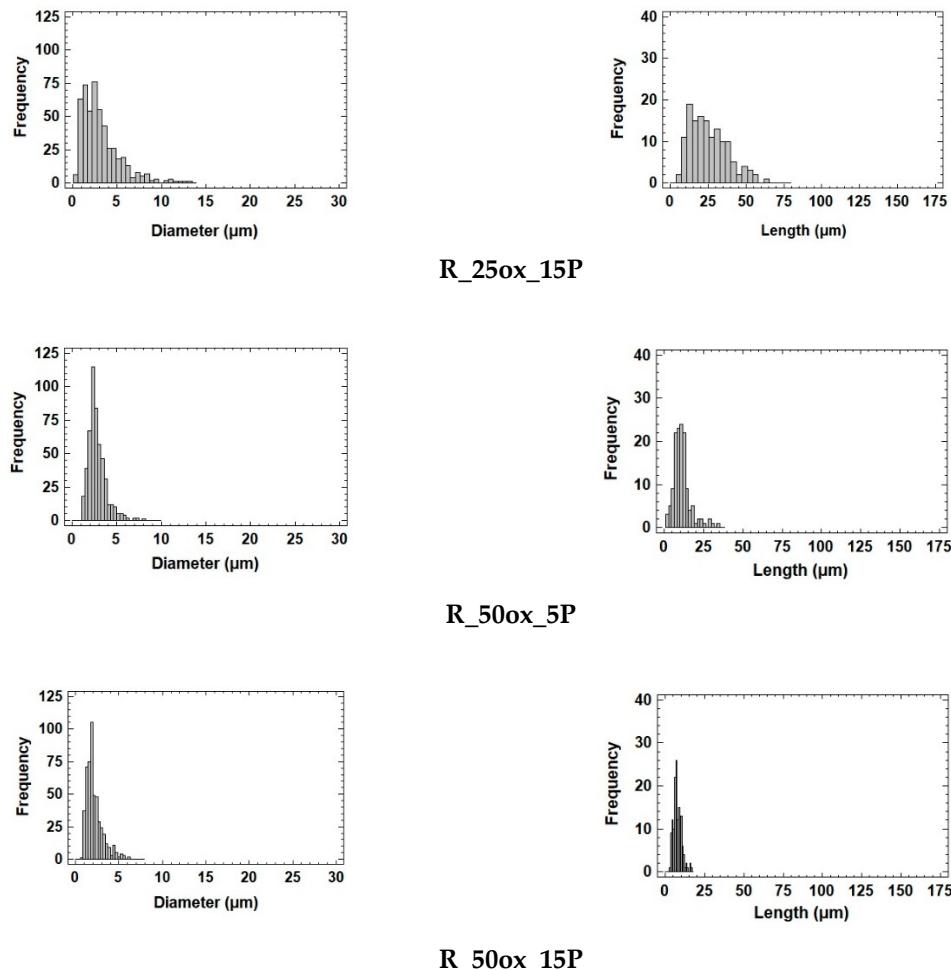
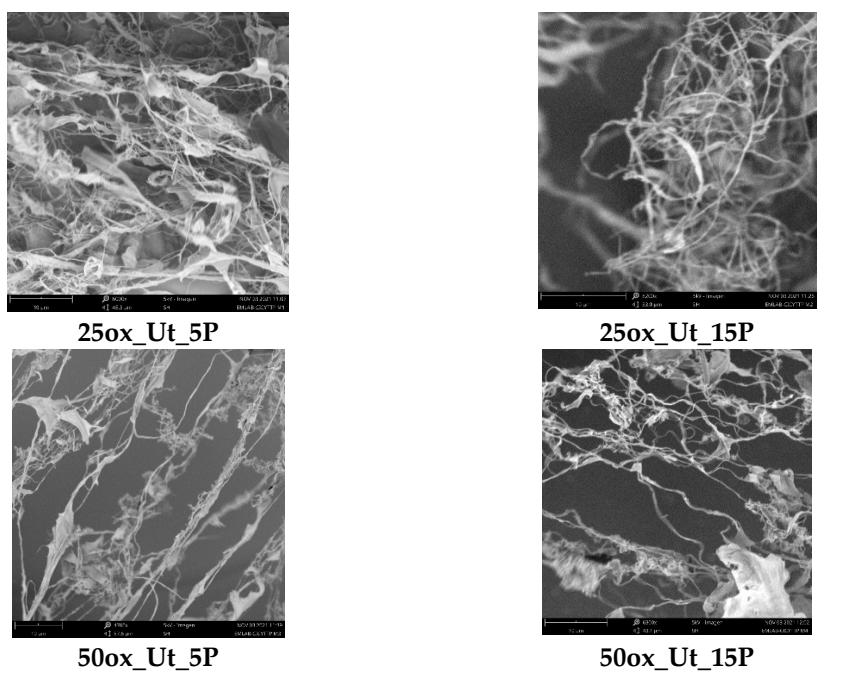
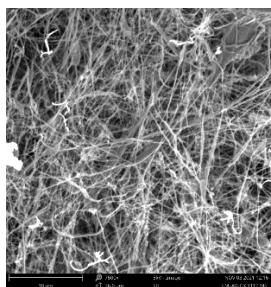
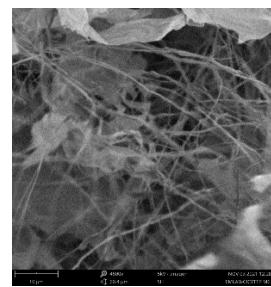


Figure S1: OM images (scale of 50 μm) diameter and length distribution of CMF.

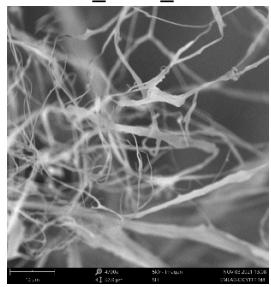




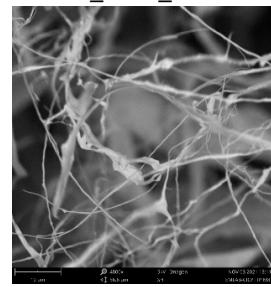
R_25ox_5P



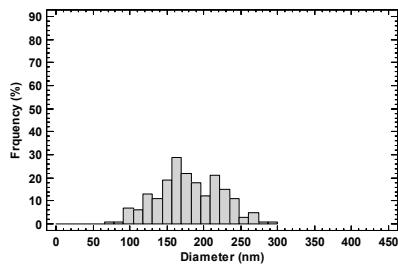
R_25ox_15P



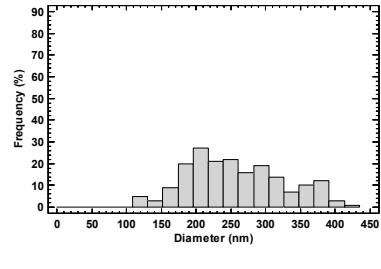
R_50ox_5P



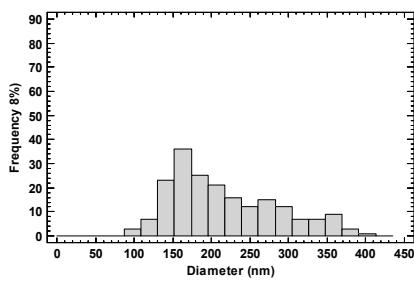
R_50ox_15P



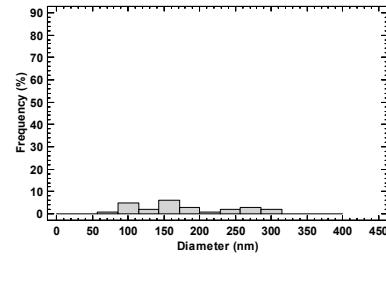
25ox_Ut_5P



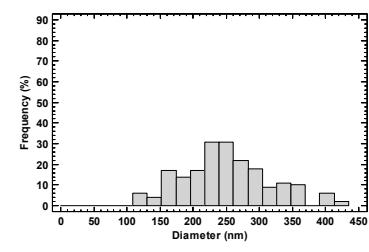
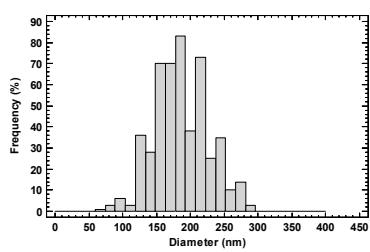
25ox_Ut_15P



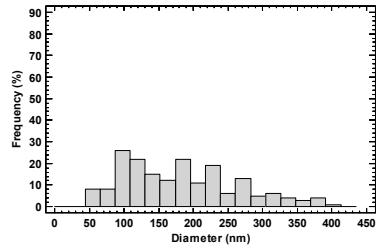
50ox_Ut_5P



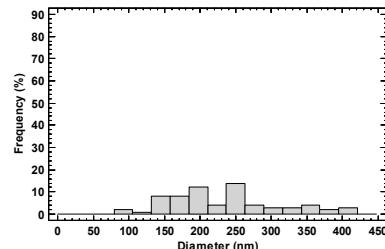
50ox_Ut_15P



R_25ox_5P

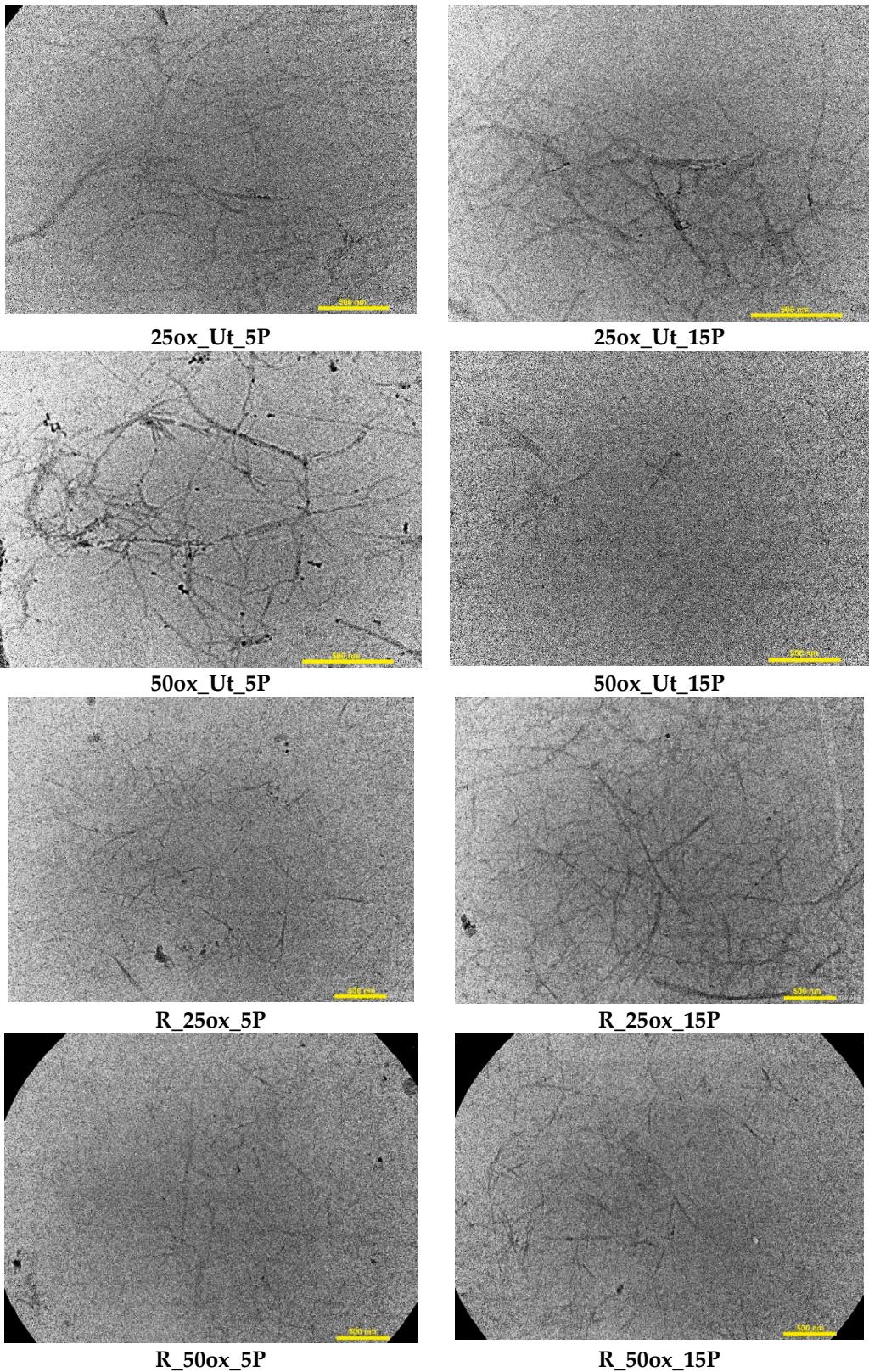


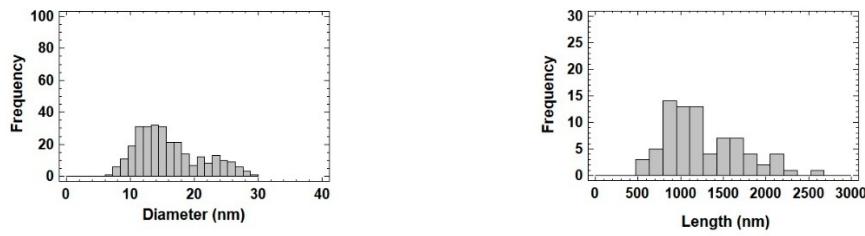
R_25ox_15P



R_50ox_5P

Figure S2: SEM images (scale of 10 μ m), diameter and length distribution of CMF.

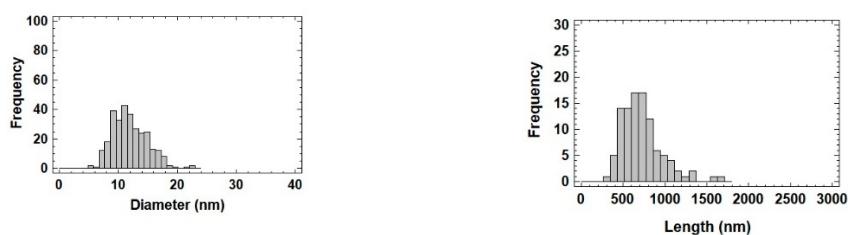




25ox_Ut_5P



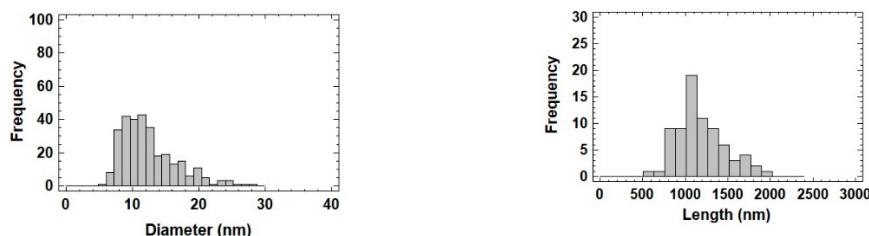
25ox_Ut_15P



50ox_Ut_5P



50ox_Ut_15P



R_25ox_5P

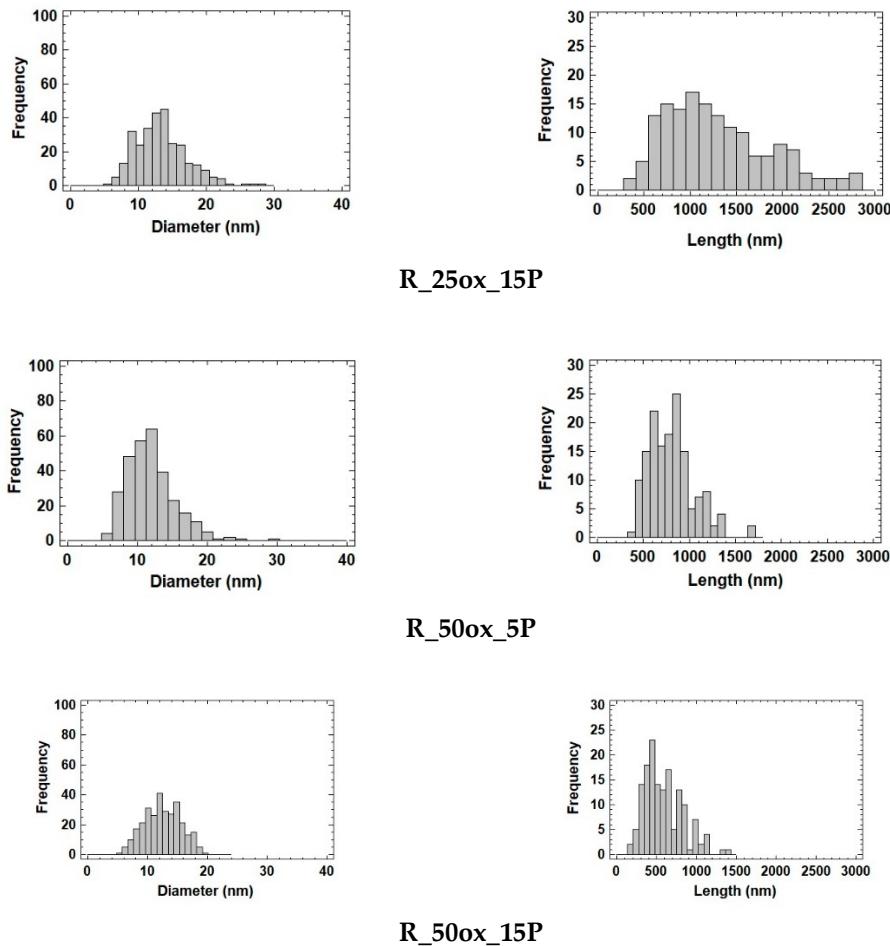
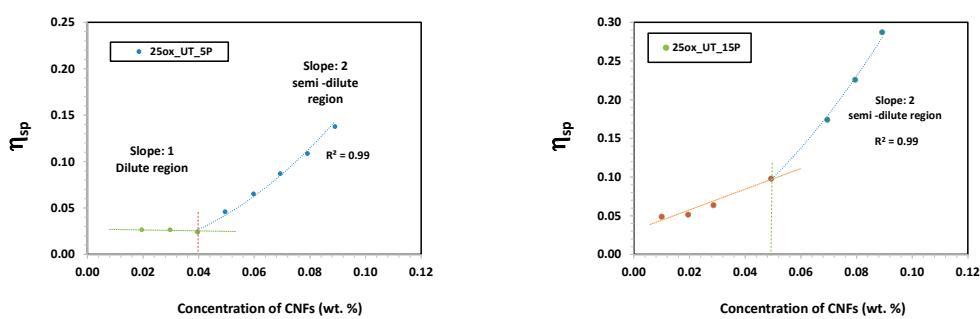


Figure S3: TEM images (scale of 10 nm), diameter and length distribution of CNF.



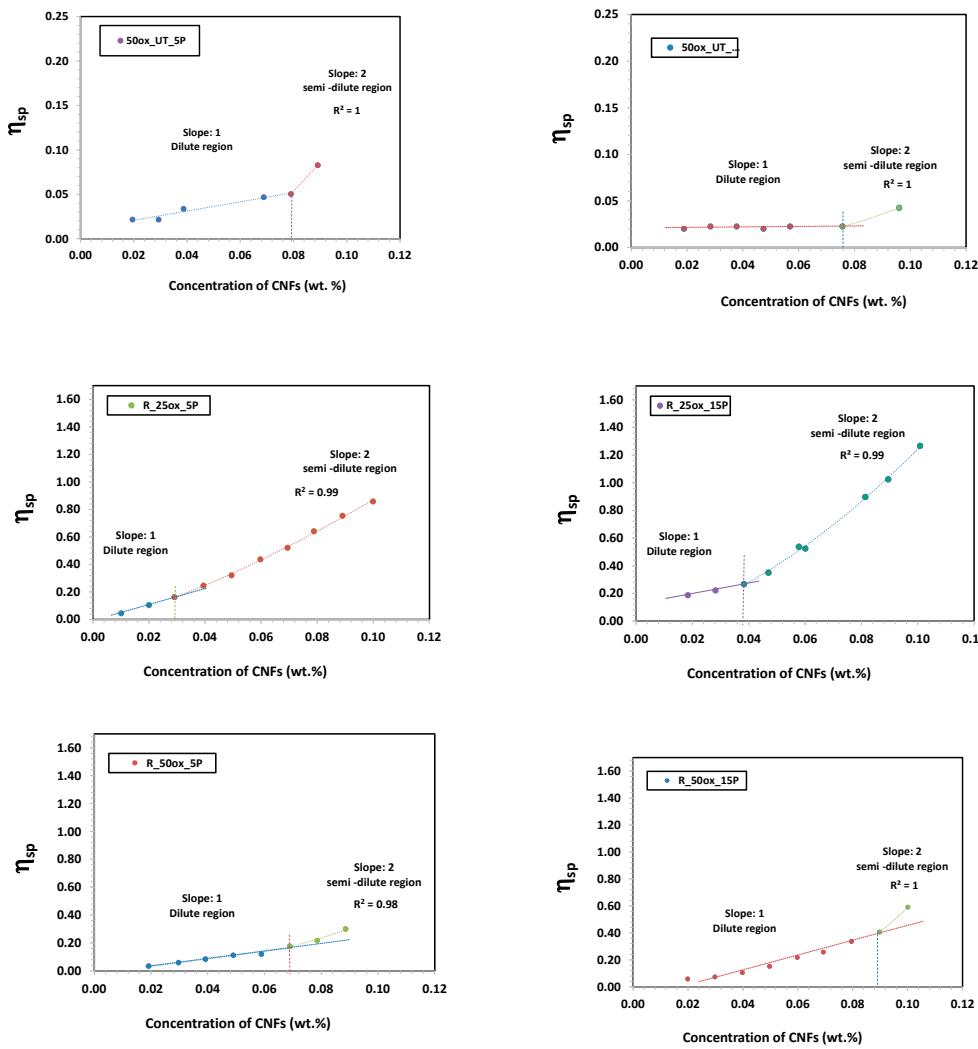


Figure S4: Variation in the specific viscosity, η_{sp} according to the concentration of CNFs.