# Supplementary Information

# A Facile Approach to Modify Cellulose Nanocrystal for the Adsorption of Perfluorooctanoic acid.

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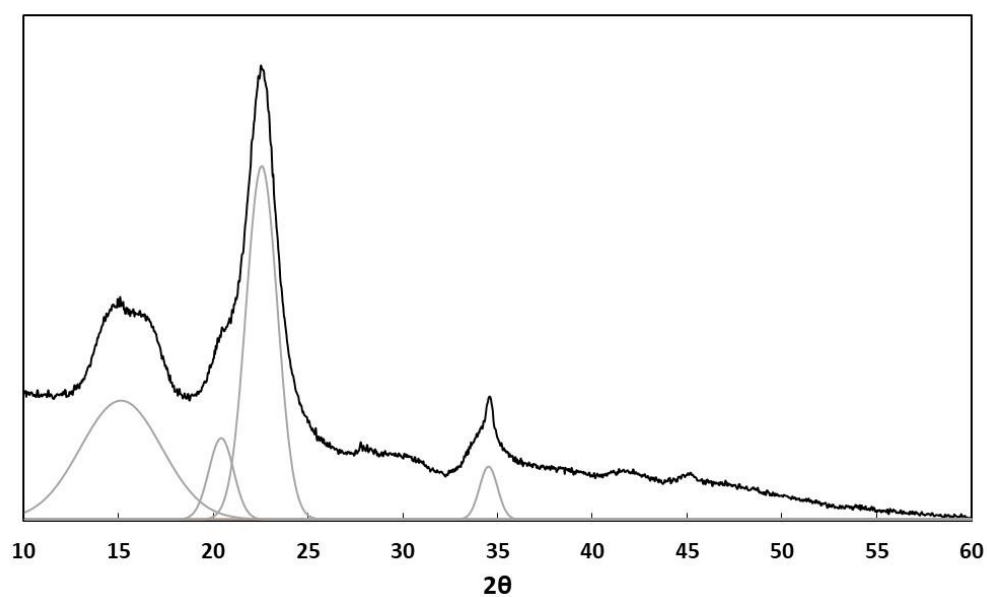[b] Institut Charles Gerhardt de Montpellier (ICGM), , Montpellier, France.

**Figure S1. Extraction of CNC crystalline peaks from XRD spectra**
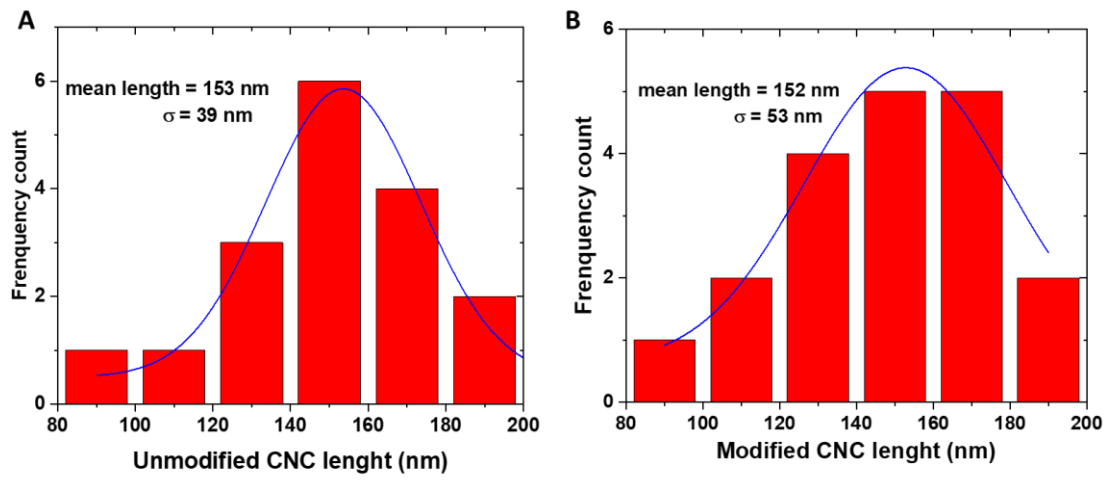
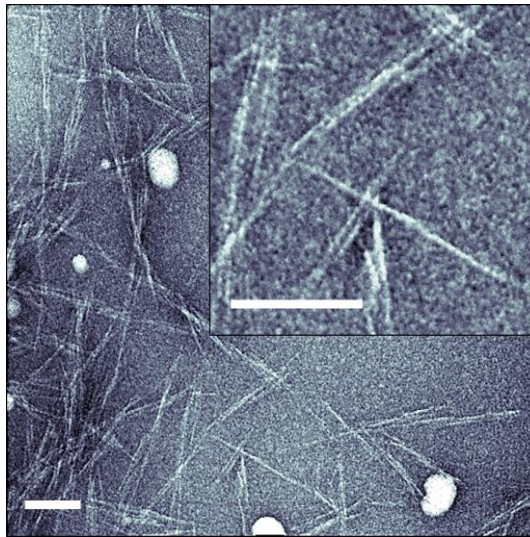**Figure S2: Length distribution measured by TEM of CNC before (A) and after (B) modification.**



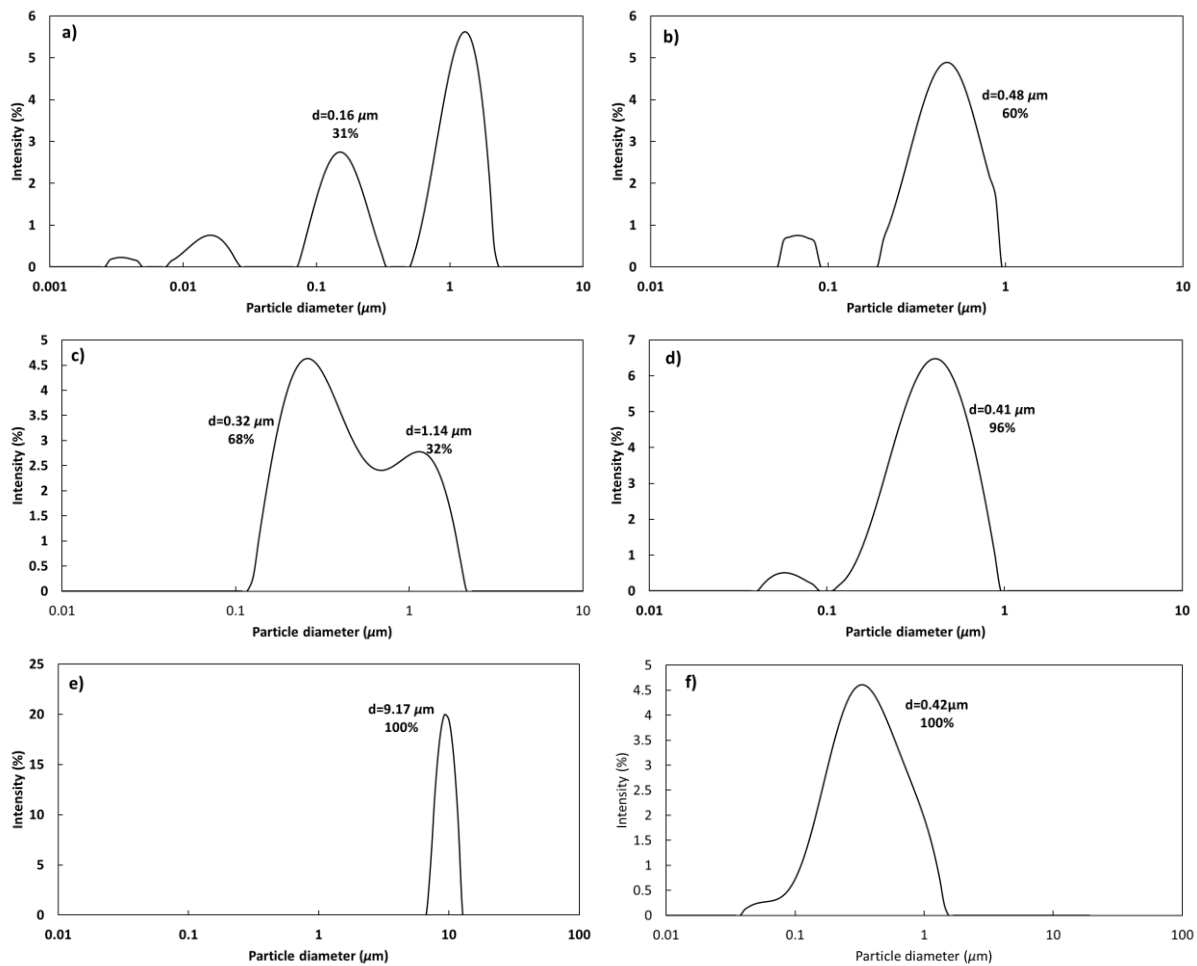**Figure S3: TEM image of CNC after modification with PTMAEMA, scale bars = 200 nm**

**Figure S4.** Particle size distribution measured by DLS of a) CNC, b) CNC: PTMAEMA 1, c) CNC: PTMAEMA 2, d) CNC: PTMAEMA 3, e) CNC: PTMAEMA 4, and f) PTMAEMA
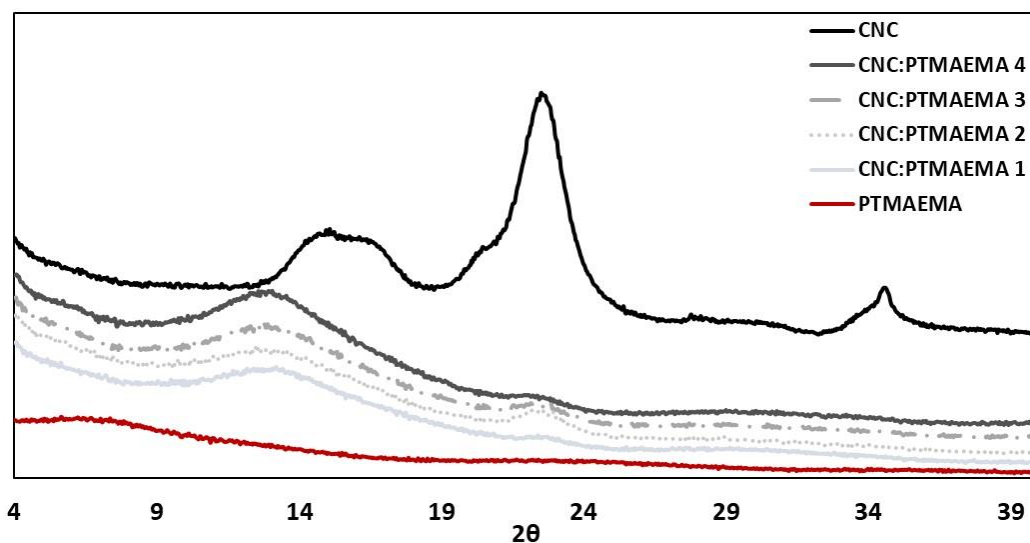
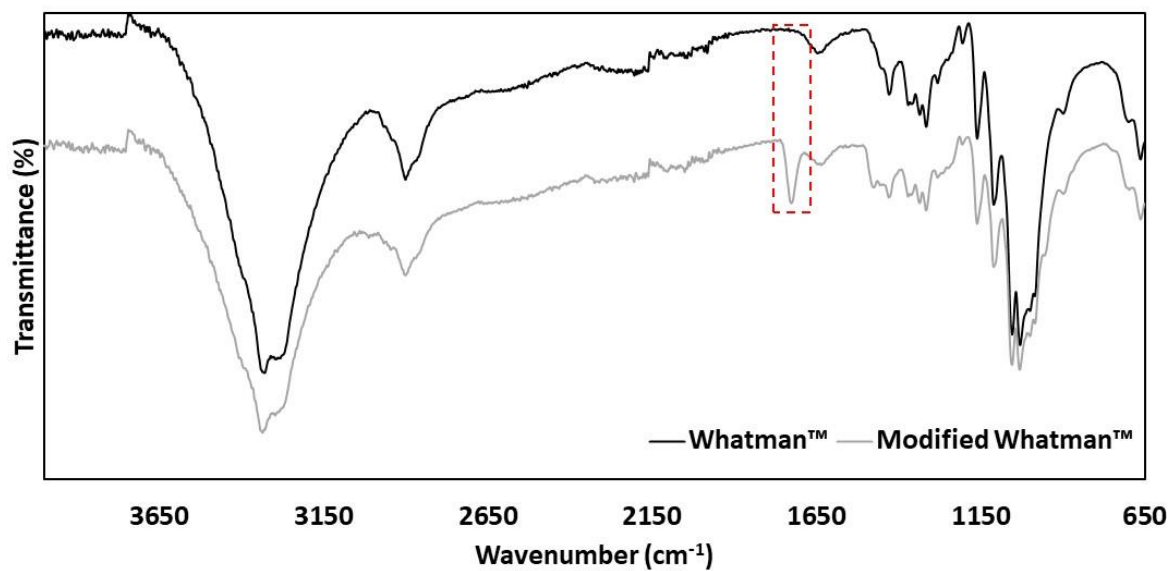**Figure S5. XRD patterns of CNC and CNC/PTMAEMA nanocomposite films**



**Figure S6. FTIR spectra of Whatman™ before and after modification**
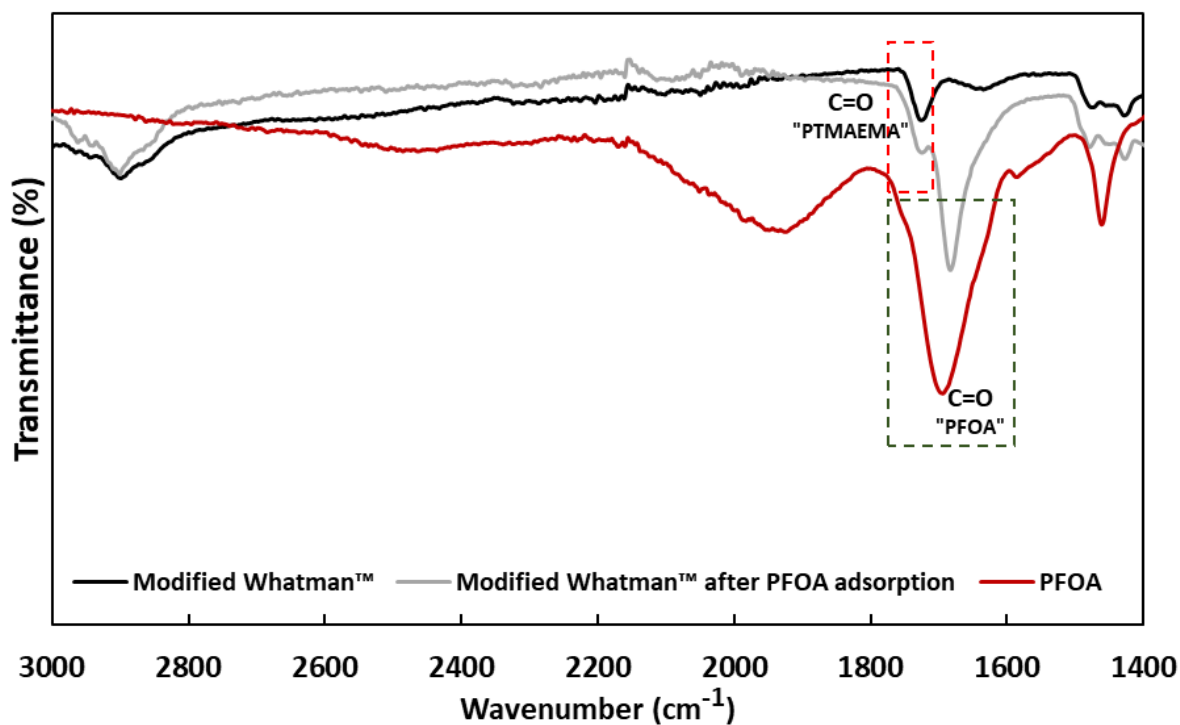
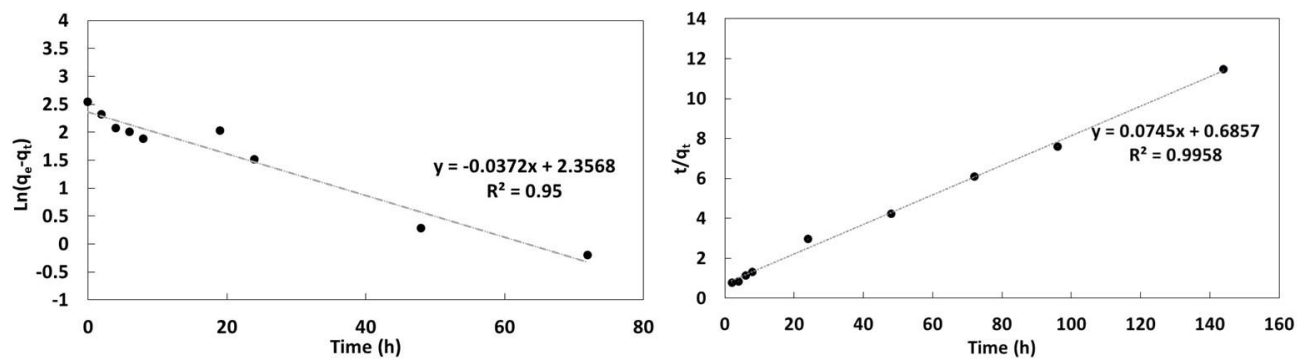**Figure S7. FTIR spectra of modified Whatman™ after PFOA adsorption**



**Figure S8. Linear regression of pseudo-first-order kinetic model of adsorption of PFOA b) Linear regression of pseudo-second-order kinetic model of adsorption of PFOA**
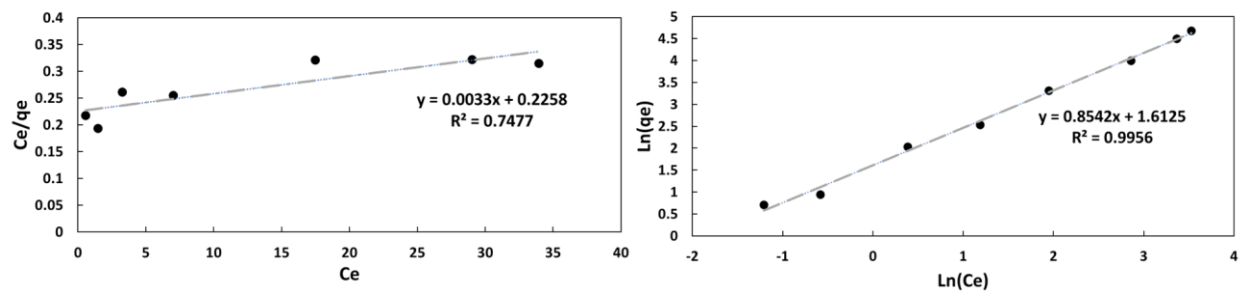
**Figure S9. Linear regression of a) Langmuir isotherm model of PFOA and b) Freundlich isotherm model of PFOA**