

Supporting Information

Antifouling Electrospun Nanofiber Mats Functionalized with Polymer Zwitterions

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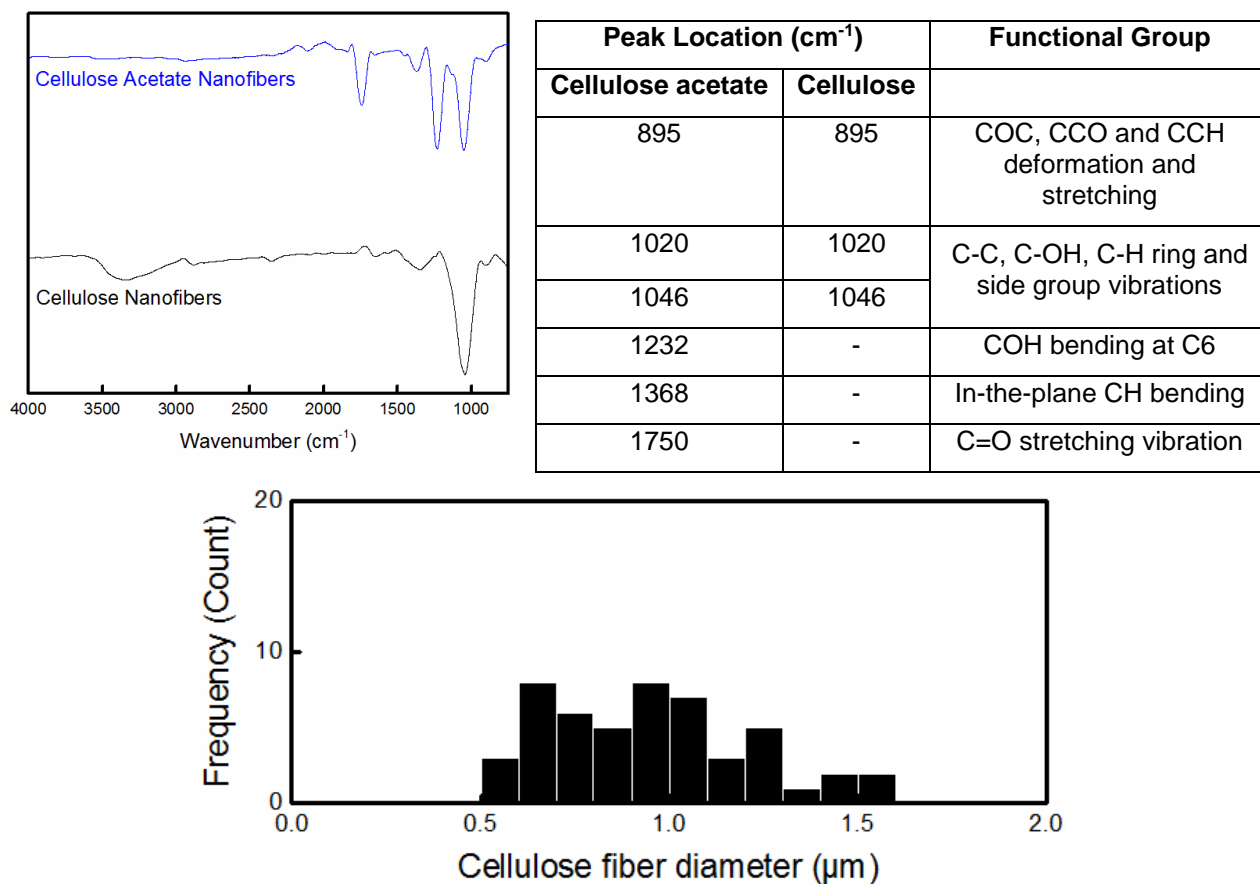


Figure S1. (Top) FTIR spectra of the as-spun cellulose acetate and cellulose nanofiber mats are displayed. A table that summarizes the characteristic FTIR peaks of the cellulose acetate and cellulose nanofiber mats are provided. **(Bottom)** A histogram of the fiber diameter distribution of the cellulose nanofiber mats is displayed.

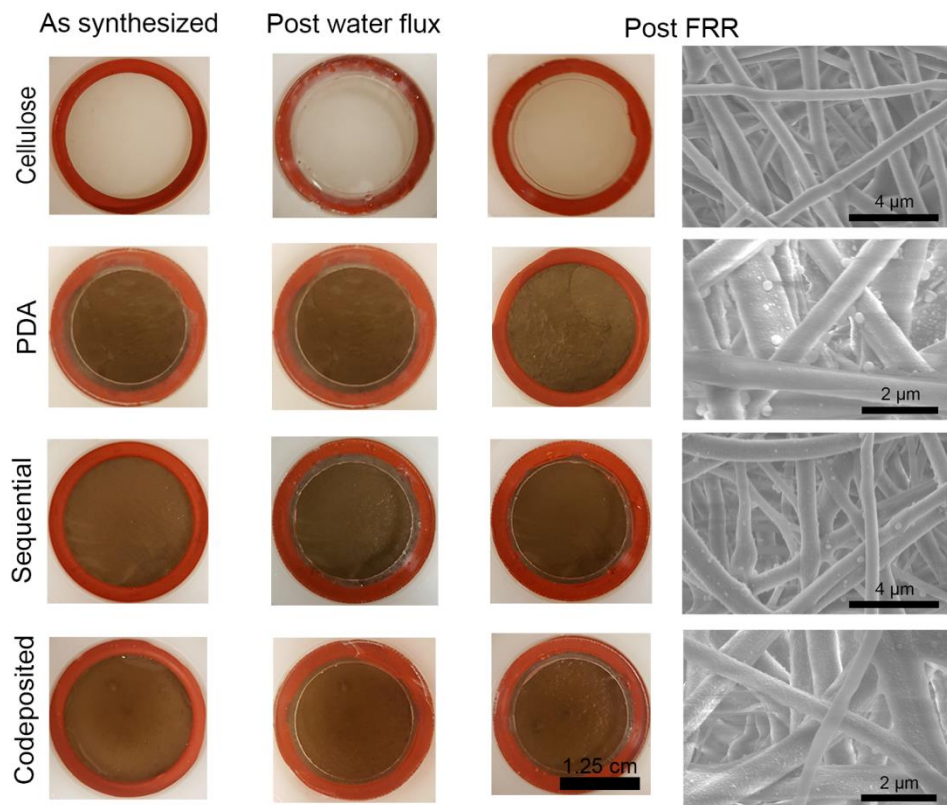
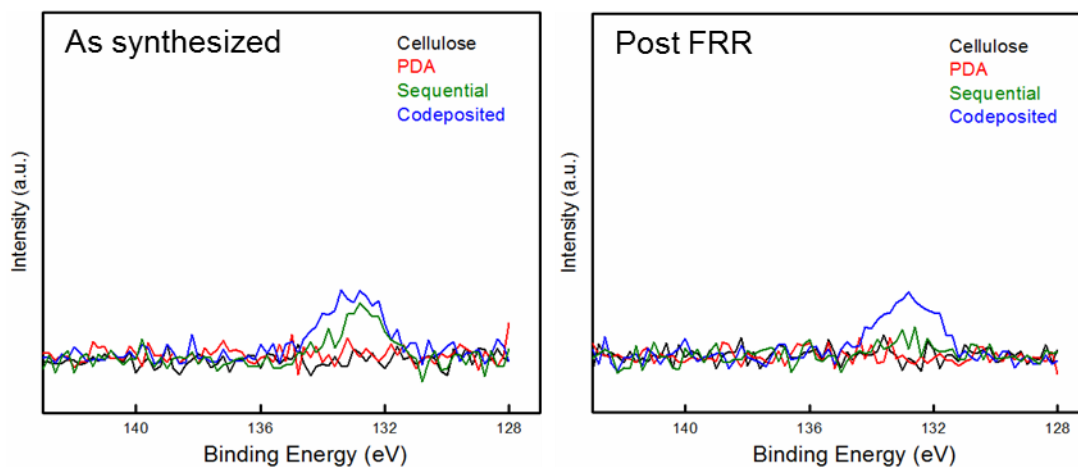


Figure S2. Digital images of cellulose, PDA, and polyMPC/PDA (sequential and codeposited) functionalized nanofiber mats are displayed. Images were captured while the sample was loaded into the stirred-cell before testing (as synthesized), post pure water flux experiments, and post FRR experiments. A 1.25 cm scale bar is provided. SEM micrographs of the nanofiber mats post FRR experiments are also provided.



Sample	C (%)	O (%)	N (%)	P (%)	O/C	N/C	P/C	N ₄₀₁ / N ₃₉₉
Post FRR								
Cellulose	59 ± 0.6	39 ± 0.4	1.5 ± 0.9		0.67	0.02		
PDA	61 ± 0.6	34 ± 2.4	4.5 ± 1.4	0.3 ± 0.3	0.56	0.07	0.005	
Sequential	60 ± 1.3	38 ± 1.1	2.1 ± 0	0.2 ± 0.1	0.63	0.04	0.003	0.05 ± 0.04
Codeposited	59 ± 2.4	38 ± 3.1	3.4 ± 0.1	0.5 ± 0.5	0.64	0.06	0.008	0.15 ± 0.05

Figure S3. (Top) Representative XPS spectra of the P_{2p} peak of the cellulose, PDA, and polyMPC/PDA (sequential and codeposited) functionalized nanofiber mats as synthesized and post FRR experiments. **(Bottom)** Summary of the elemental analysis of the high resolution XPS that provides composition analysis of the samples post FRR experiments.