

Supplementary Information

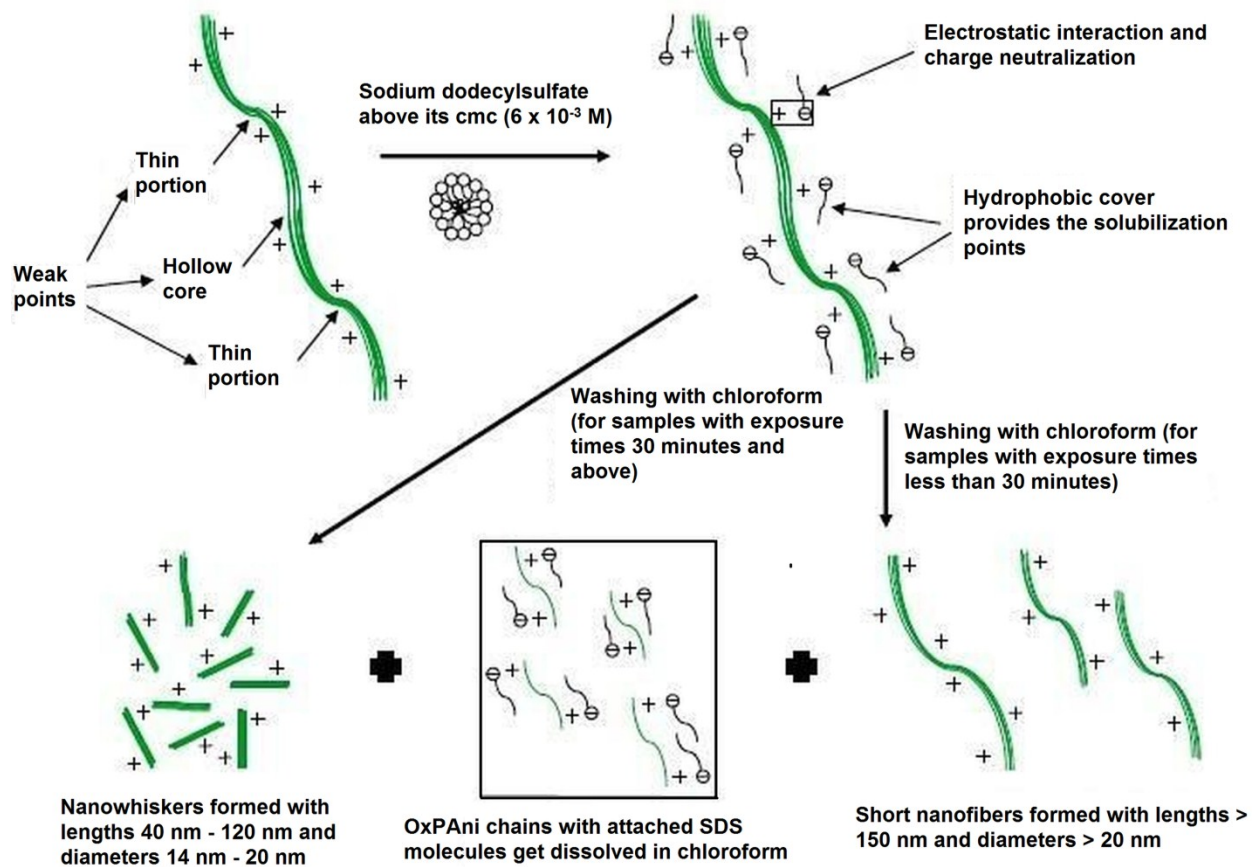
Polyaniline nanowhiskers induced low methanol permeability and high membrane selectivity of partially sulfonated PVdF-*co*-HFP membranes

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SCHEME



Scheme S1 A schematic representation of the proposed mechanism involved in the reduction of OxPANI NFs' length, diameter, and aspect ratio upon treatment with SDS and chloroform.

FIGURES

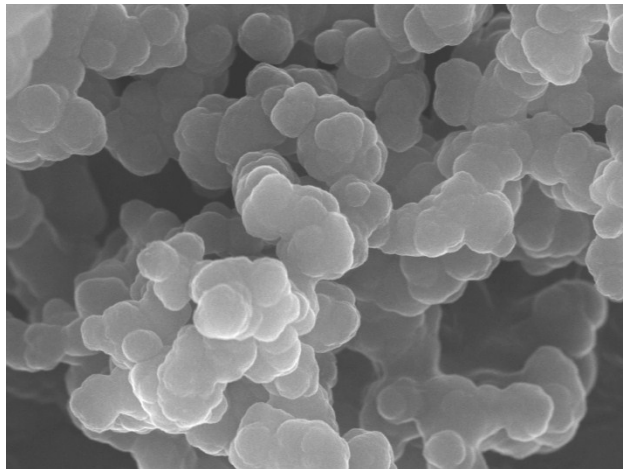


Fig. S1 SEM micrograph of the OxPAni granules. (Scale bar: 100 nm, Magnification: 50000x)

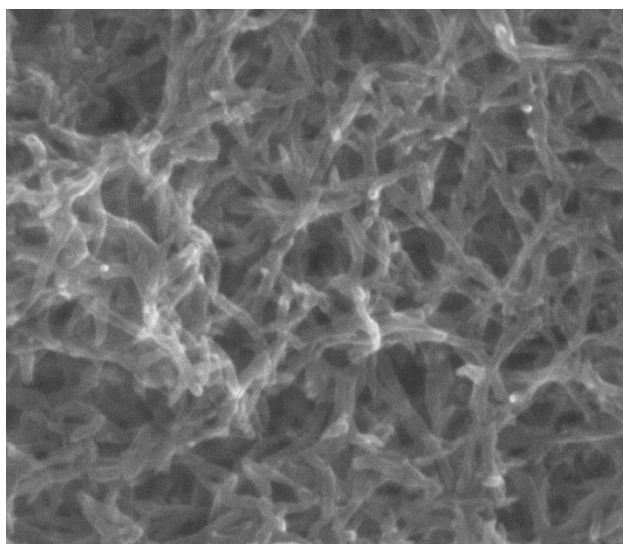


Fig. S2 SEM micrograph of the interfacially synthesized OxPAni NFs. (Scale bar: 100 nm, Magnification: 50000x)

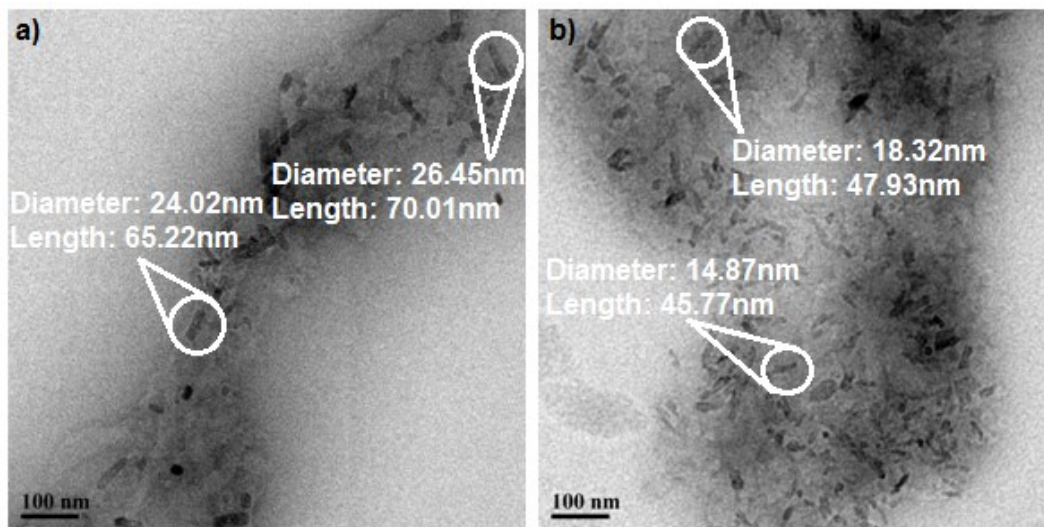


Fig. S3 TEM micrographs of the OxPani NFs after (a) 50 min and (b) 70 min exposure to SDBS. Results comparable to SDS were obtained.

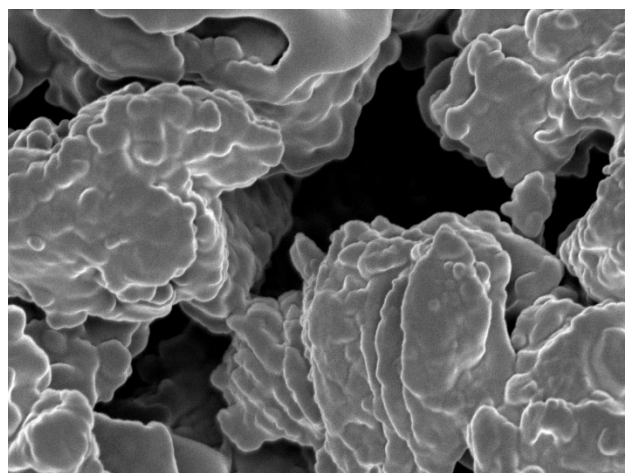


Fig. S4 SEM micrograph of the pristine Nafion-117 membrane [12]. (Scale bar: 100 nm, Magnification: 30000x)

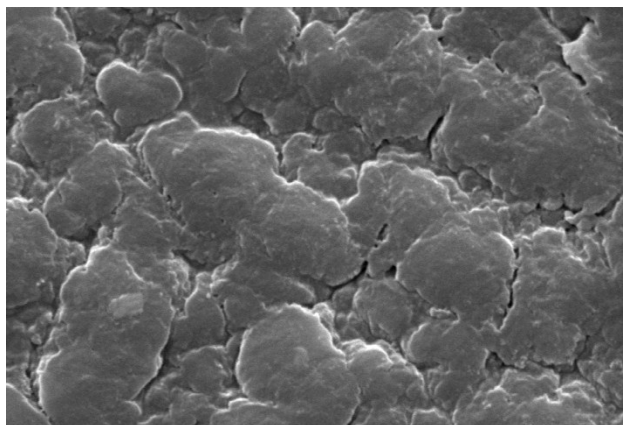


Fig. S5 SEM micrograph of the pristine SPVdF-*co*-HFP membrane [12]. (Scale bar: 100 nm, Magnification: 30000x)

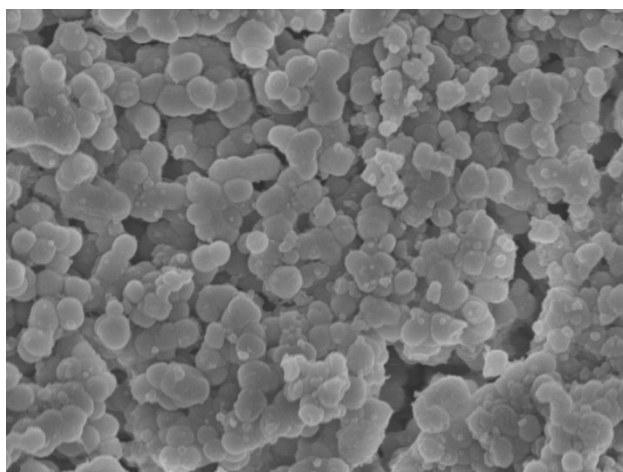


Fig. S6 SEM micrograph of the SPVHP(G) membrane. (Scale bar: 100 nm, Magnification: 50000x)

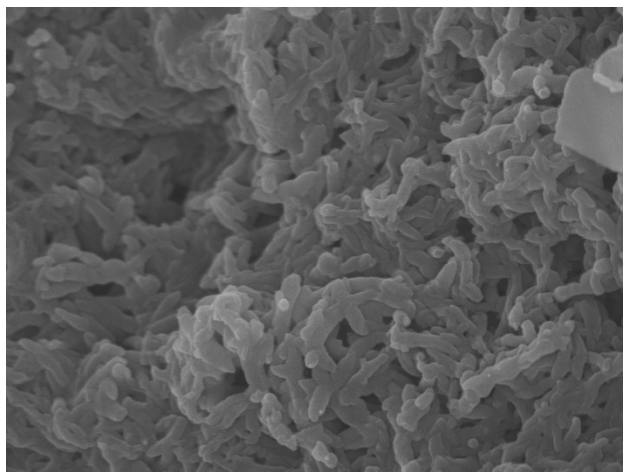


Fig. S7 SEM micrograph of the SPVHP0 membrane. (Scale bar: 100 nm, Magnification: 50000x)

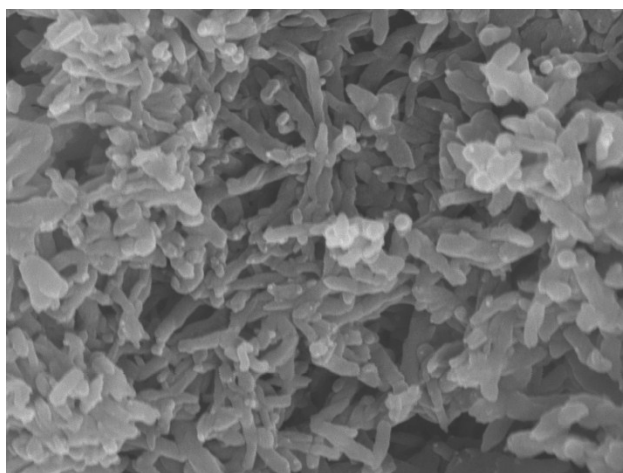


Fig. S8 SEM micrograph of the SPVHP30 membrane. (Scale bar: 100 nm, Magnification: 50000x)

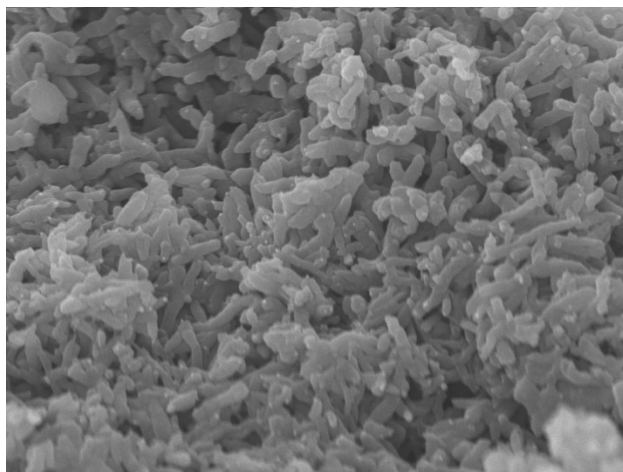


Fig. S9 SEM micrograph of the SPVHP70 membrane. (Scale bar: 100 nm, Magnification: 50000x)