

Supplementary information

Article

Influence of PAN:PEO ratio on the morphology of needless electrospun nanofiber mats before and after carbonization

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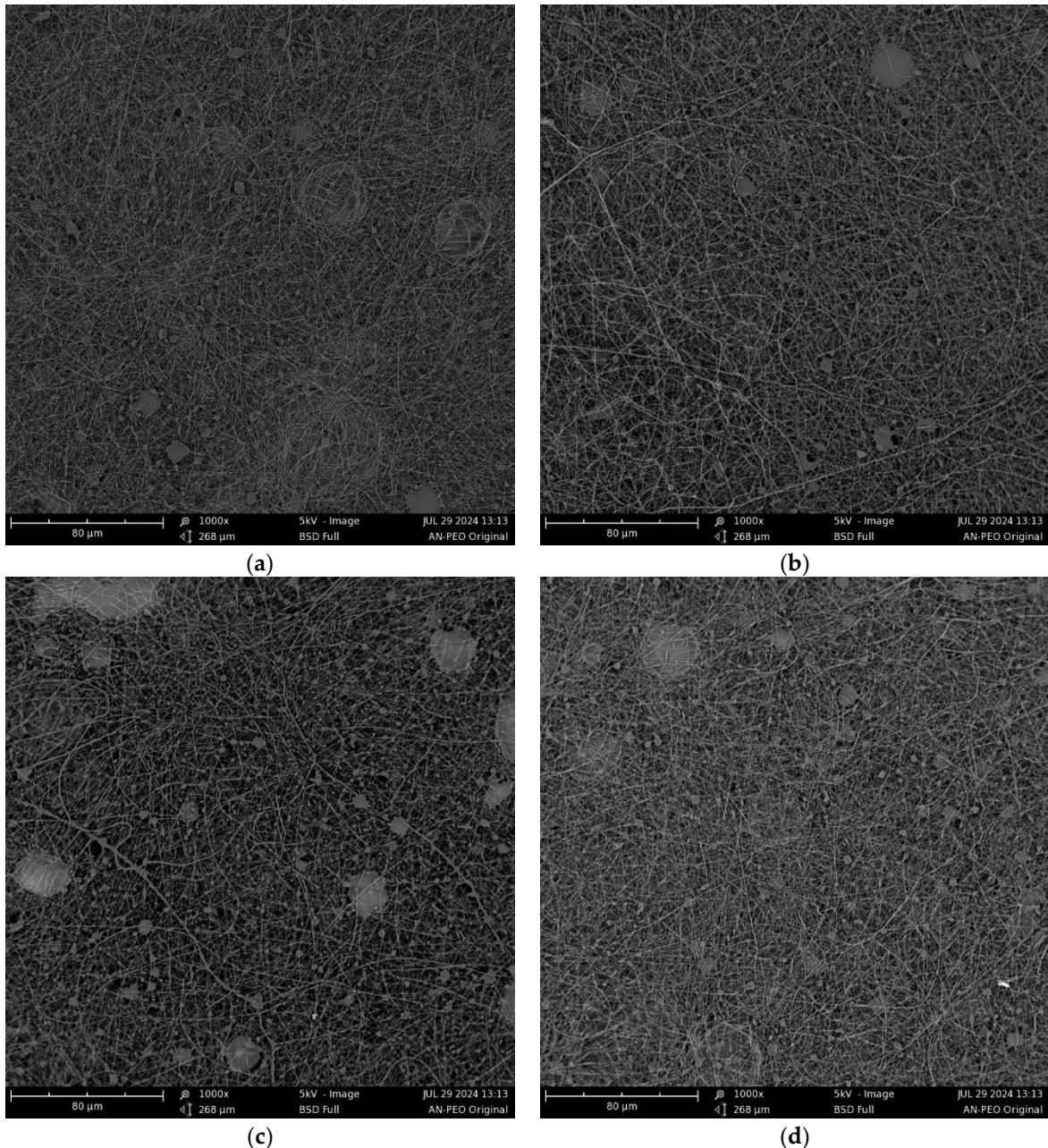


Figure S1. Scanning electron microscopy (SEM) images with nominal magnification 1000 x of PAN:PEO 9:1, PEO molecular weight: (a) 40 kDa; (b) 300 kDa; (c) 600 kDa; (d) 1000 kDa.

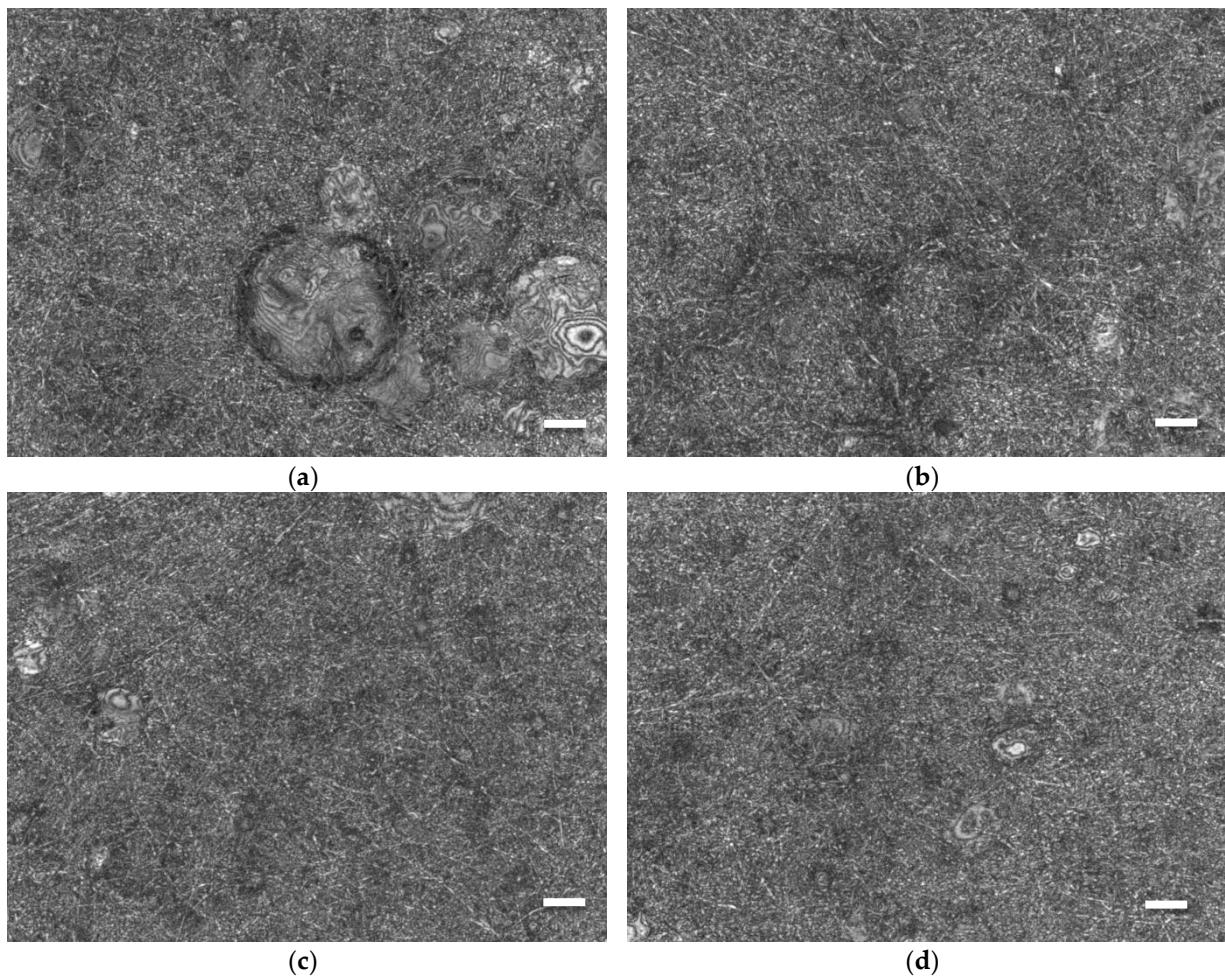


Figure S2. Confocal laser scanning microscope (CLSM) images with nominal magnification 2000 x of PAN:PEO 9:1, PEO molecular weight: (a) 40 kDa; (b) 300 kDa; (c) 600 kDa; (d) 1000 kDa. Scale bars correspond to 1 μm .

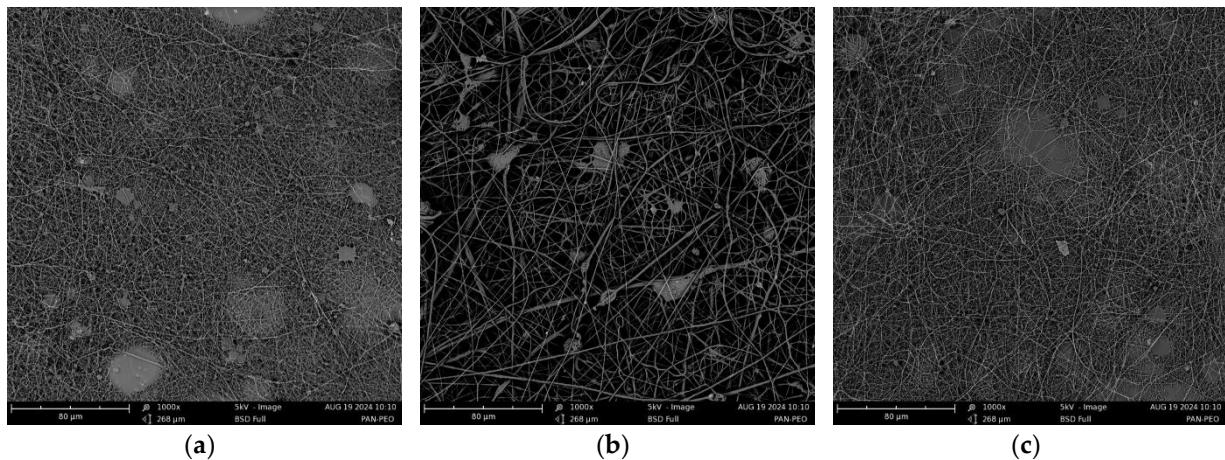


Figure S3. SEM images with nominal magnification 1000 x of PAN:PEO mixing ratios: (a) 8:2; (b) 7:3; (c) 6:4, using PEO with molecular weight 300 kDa.

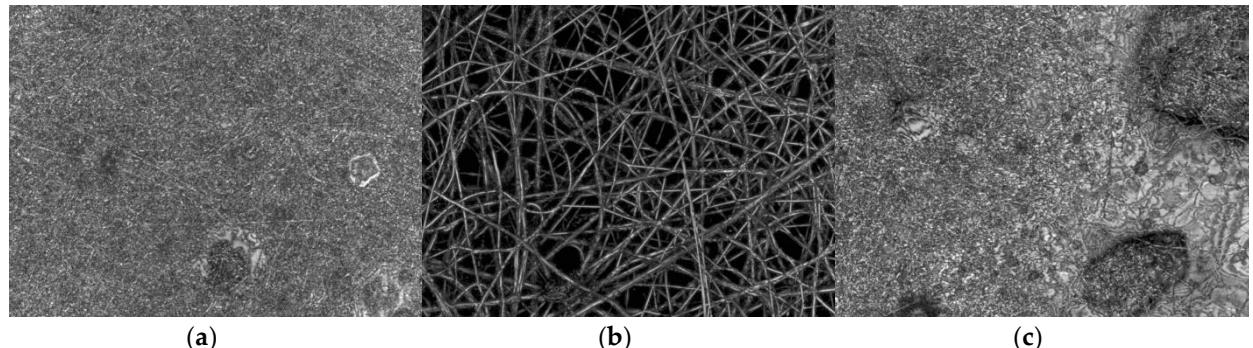


Figure S4. CLSM images with nominal magnification 2000 x of PAN:PEO mixing ratios: (a) 8:2; (b) 7:3; (c) 6:4, using PEO with molecular weight 300 kDa.

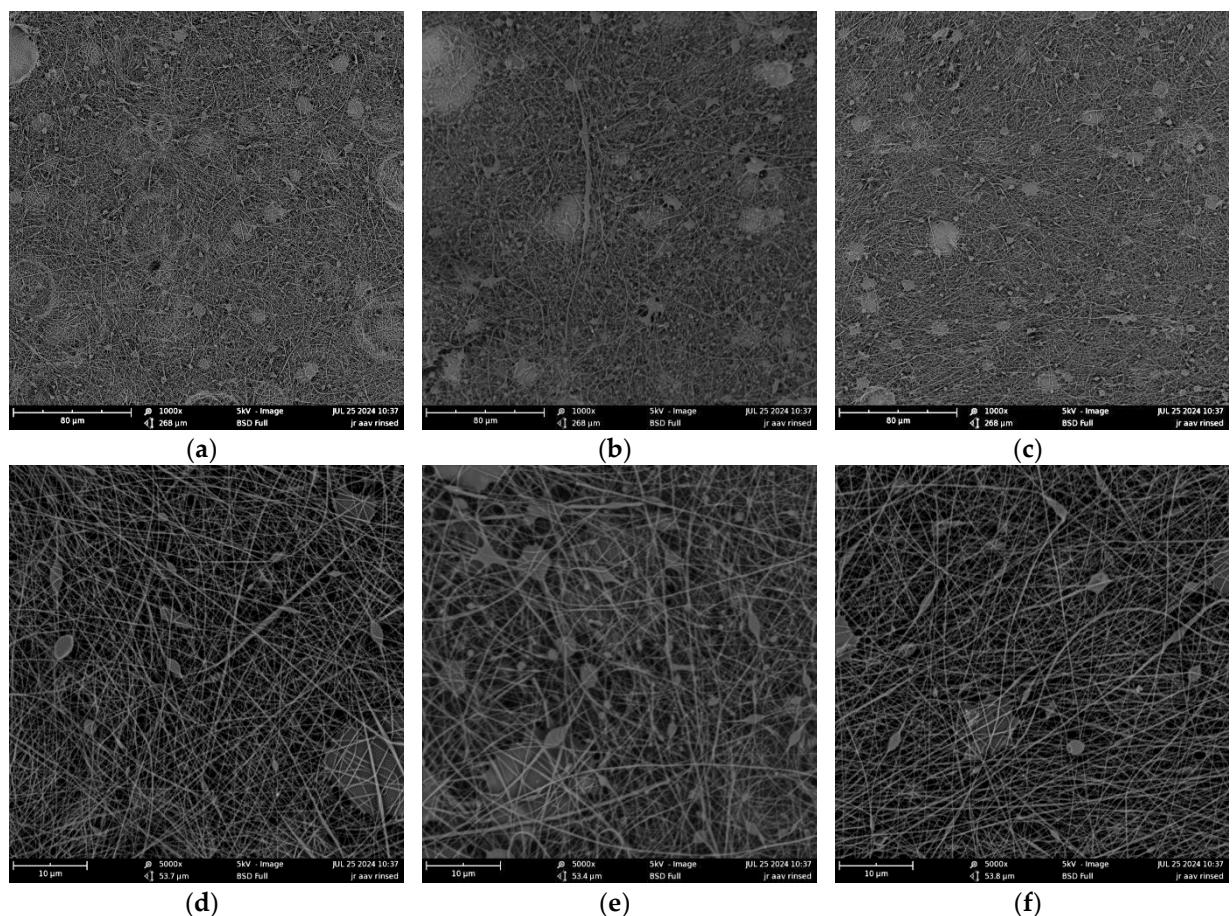
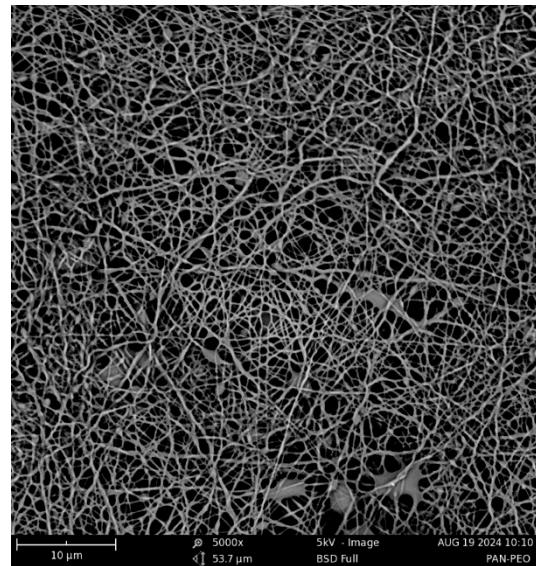


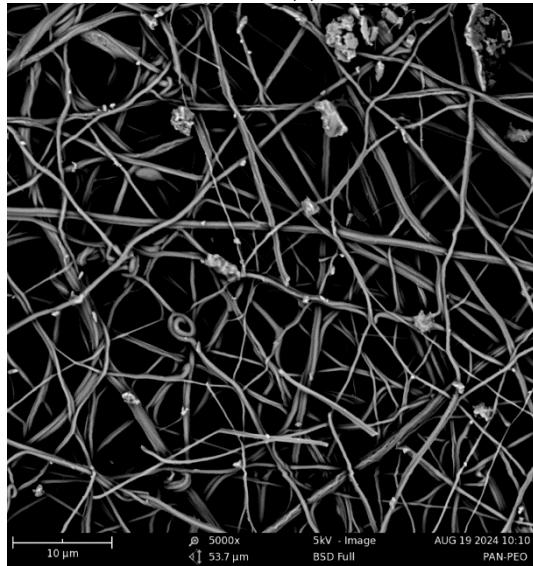
Figure S5. SEM images with nominal magnification 1000 x (upper row) and 5000 x (lower row) of PAN:PEO 9:1 samples after watering with PEO molecular weight (a,d) 40 kDa; (b,e) 600 kDa; (c,f) 1000 kDa.



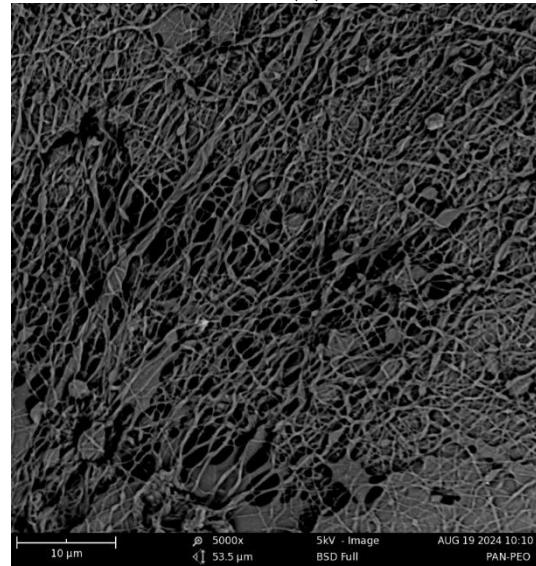
(a)



(b)

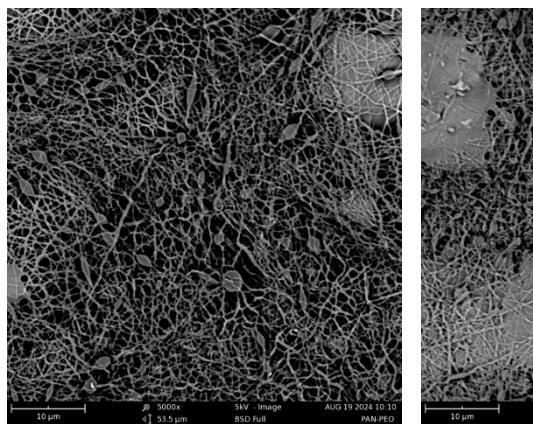


(c)

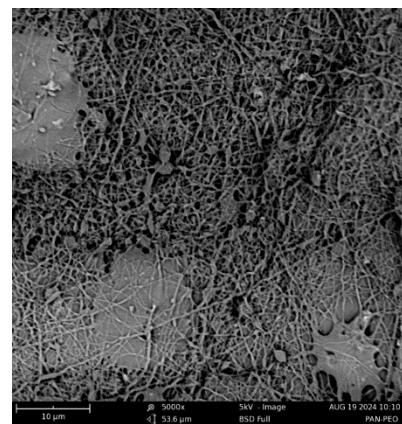


(d)

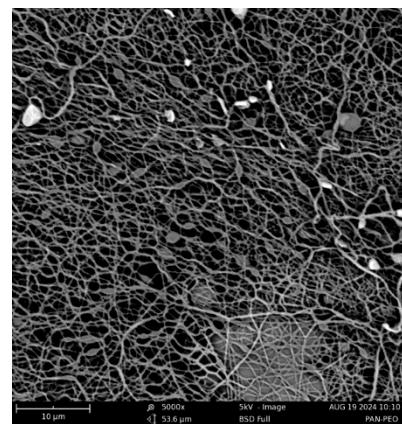
Figure S6. SEM images of PAN:PEO samples after stabilization with a PAN:PEO ratio of (a) 9:1; (b) 8:2; (c) 7:3; (d) 6:4 and PEO 300 kDa.



(a)



(b)



(c)

Figure S7. SEM images of PAN:PEO samples after stabilization with a PAN:PEO ratio of 9:1 and PEO molecular weights of (a) 40 kDa; (b) 600 kDa; (c) 1000 kDa.

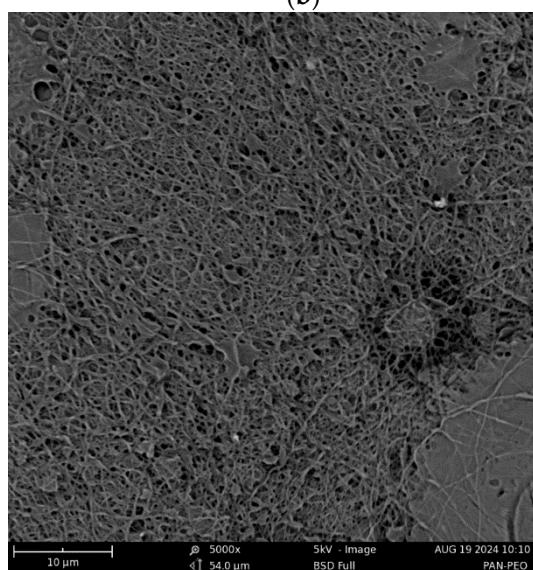
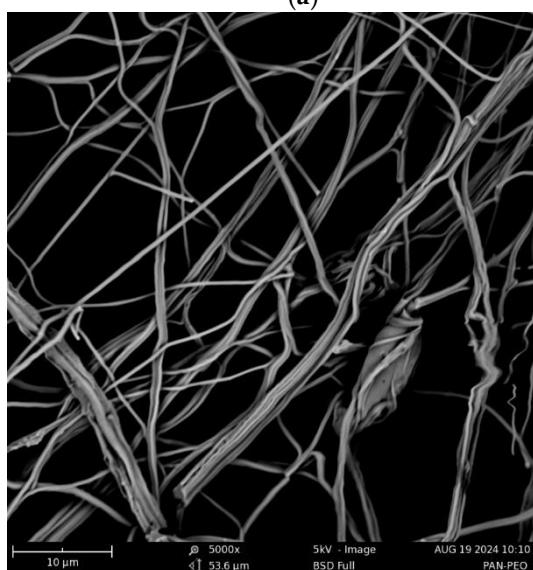
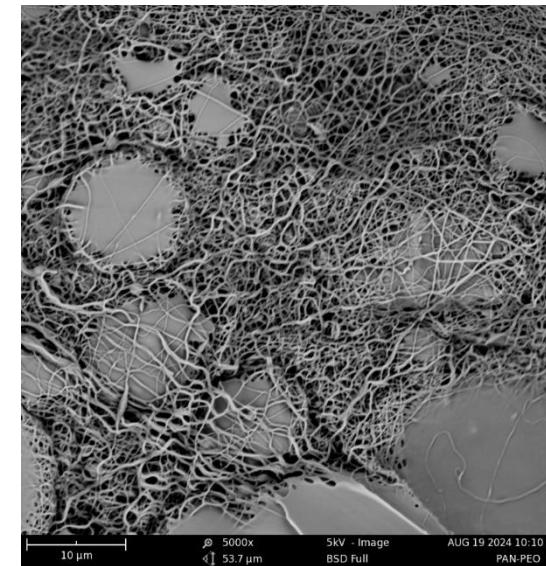
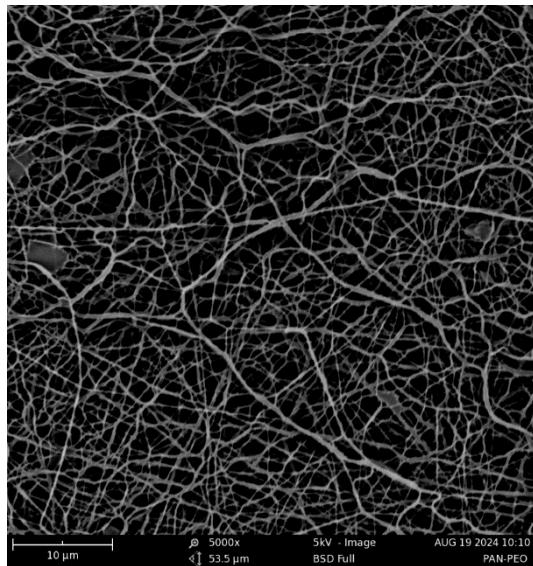


Figure S8. SEM images of PAN:PEO samples after carbonization with a PAN:PEO ratio of (a) 9:1; (b) 8:2; (c) 7:3; (d) 6:4 and PEO 300 kDa.

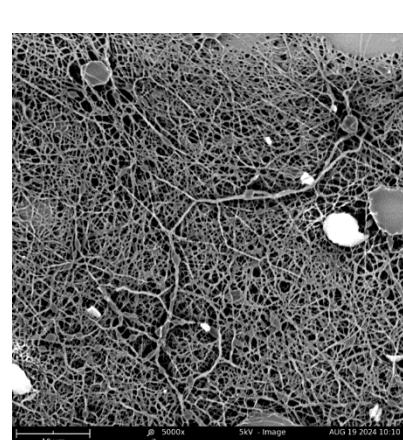
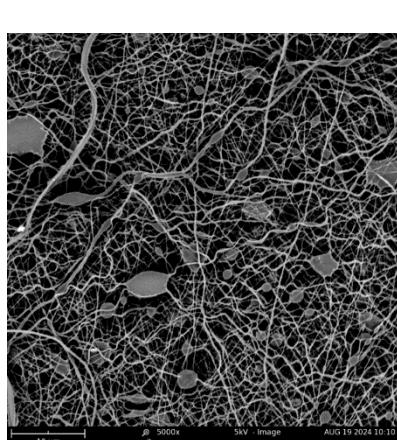
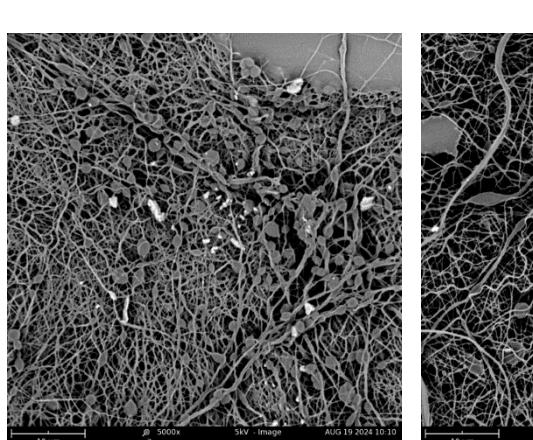


Figure S9. SEM images of PAN:PEO samples after carbonization with a PAN:PEO ratio of 9:1 and PEO molecular weights of (a) 40 kDa; (b) 600 kDa; (c) 1000 kDa.