

Supporting Information

Core-shell structured PEO-chitosan nanofibers by coaxial electrospinning

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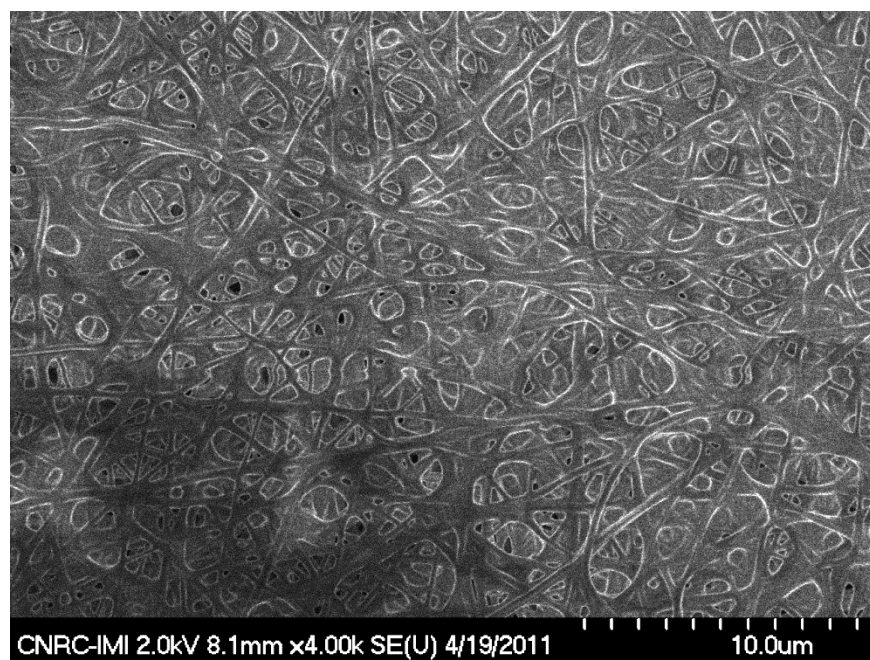
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Figure S1. SEM image of PEO extracted co-axial PEO/chitosan nanofibrous mat



Calculation of co-axial nanofibers density:

Density of PEO (typically 70% crystalline) = 1.20 g/cm^3 ¹

Density of chitosan = 1.33 g/cm^3 ²

Weight percent of chitosan in co-axial nanofibers $\cong 52 \text{ wt\%}$ (TGA results)

Density of the co-axial nanofibers = $1 / (\sum w_i / d_i) = 1 / ((0.52/1.33) + (0.48/1.2)) = 1.26 \text{ g/cm}^3$

where w_i and d_i are weight fraction and density of component i in the mixture, respectively.

(References):

1. Lin, H.; Freeman, B. D. *Journal of Membrane Science* **2004**, 239, (1), 105-117.
2. Musale, D. A.; Kumar, A. *Journal of Applied Polymer Science* **2000**, 77, (8), 1782-1793.