

Supporting Information

Polymer Fibers with Hierarchically Porous Structure: Combination of High Temperature Electrospinning and Thermally Induced Phase Separation

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Table S1 Solubility parameters of iPP, DBP and DOP

Substance	δ_d	δ_p	δ_h	δ
iPP	17.19	-	-	17.19
DBP	17.8	8.6	4.1	20.3
DOP	16.6	7	3.1	18.2

Table S2 Physical properties of iPP, DBP and DOP

Properties	iPP	DBP	DOP
Density ρ (g/cm ³)	0.90	1.045	0.986
Evaporation enthalpy ΔH_v (J/g)	----	284.7	254.2
Crystallization enthalpy ΔH_{cry} (J/g)	209.2	----	----
Heat capacity C_p (J/g k)	1.90	1.79	1.80
Thermal conductivity λ (W/m k)	0.22	0.10~0.30 for organic solvents	

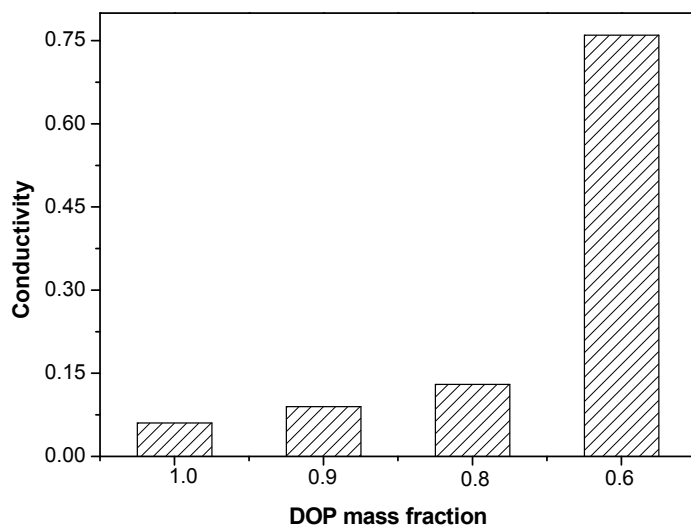


Fig. S1 Effect of 1.0% (w/w) ionic liquid addition on the solution conductivity.

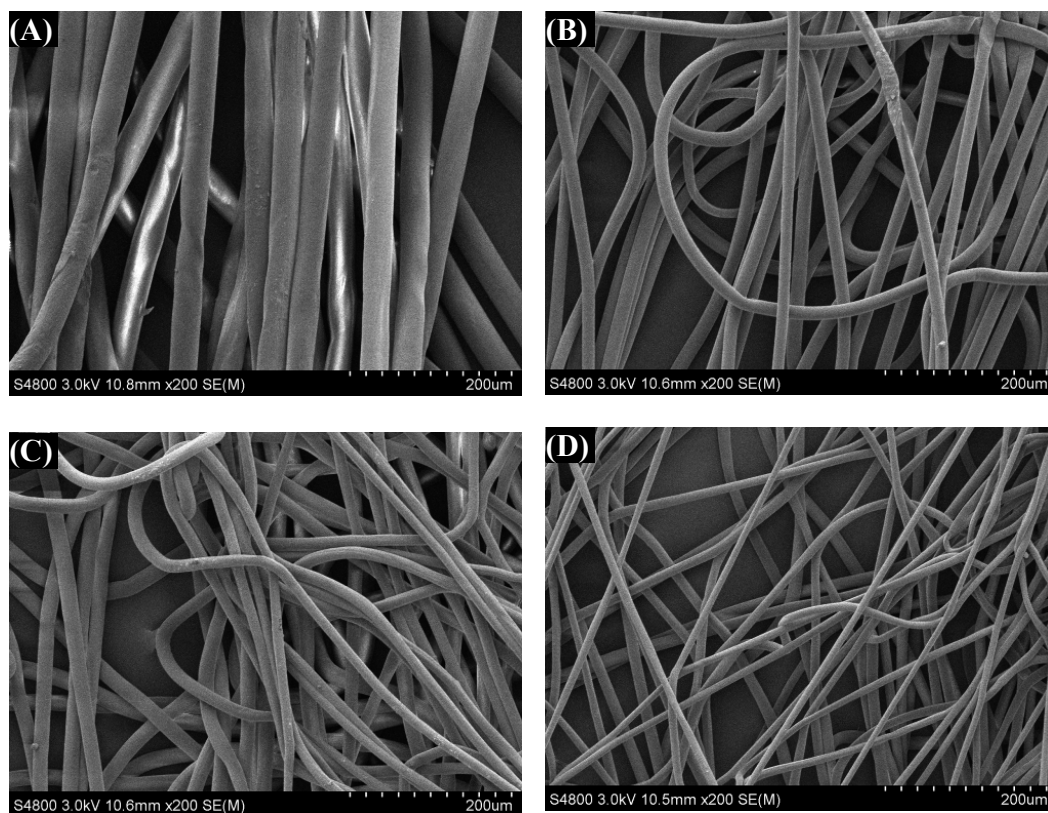


Fig. S2 SEM pictures of iPP fibers electrospun from iPP/DOP solutions with different [CMim][NTf₂] contents: (A) 0; (B) 0.67; (C) 1.33; (D) 2.00 % (w/w).

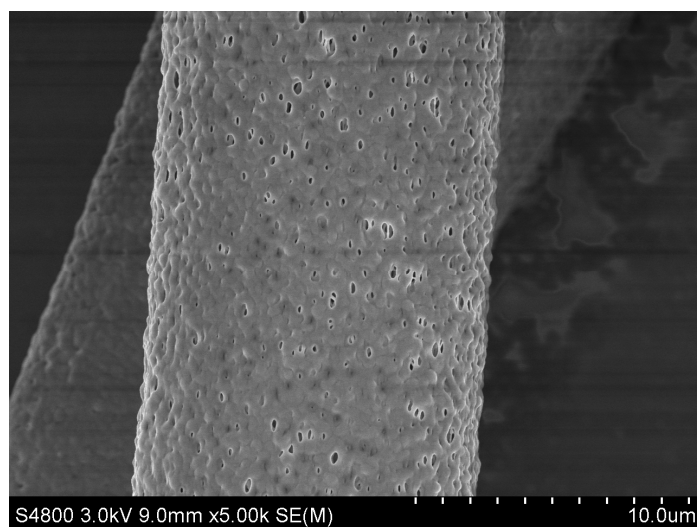


Fig. S3 Surface morphology of fiber electrospun from iPP/DOP with 1.33% ionic liquid after introduction of an additional MSCS process. The extension ratio was 200%.



Fig. S4 Photograph of as-spun large iPP porous nonwoven mesh.