Supporting Information

Effects of Latent Solvent Content on Tuning the Nanofiltration Performance of Nanofibrous-Based Composite Membranes

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Table.S1 The properties of selected solvents and viscosity of 10wt% PAN solution

Solvent	Relative dielectric constant (25 ℃)	Boiling point (℃)	Saturated vapor pressure(kPa,25 ℃)
NMP	33.7	202	0.04
DMAc	37.8	166	0.26
DMF	36.7	153	0.50
DMSO	46.7	189	0.09

Source: ASPEN PLUS Property Database.

Table.S2 The properties of DMSO/DMF mixture solvents system

Solvent	δ_D	δ_P	δ_H	R_a	Relative dielectric constant (25 ℃)	Saturated vapor pressure (kPa,25 ℃)
S1F9	17.5	16.67	11.19	9.03	37.7	0.453
S2F8	17.6	16.64	11.08	8.81	38.7	0.408
S3F7	17.7	16.61	10.97	8.59	39.7	0.363
S4F6	17.8	16.58	10.86	8.37	40.7	0.321
S5F5	17.9	16.55	10.75	8.15	41.7	0.279
S6F4	18	16.52	10.64	7.94	42.7	0.239
S7F3	18.1	16.49	10.53	7.72	43.7	0.200
S8F2	18.2	16.46	10.42	7.50	44.7	0.162

Table.S3 Category scores and composite scores for DMSO/DMF mixture solvents based on GSK solvent sustainability guide

Solvent	Waste	Environment	Health	Safety	Composite score
S1F9	4.56	6.38	3.00	8.77	5.26
S2F8	4.56	6.45	3.55	8.54	5.46
S3F7	4.56	6.51	4.10	8.31	5.64
S4F6	4.56	6.57	4.64	8.08	5.79
S5F5	4.56	6.63	5.19	7.85	5.92
S6F4	4.56	6.69	5.74	7.62	6.04
S7F3	4.56	6.75	6.29	7.40	6.15
S8F2	4.56	6.81	6.84	7.17	6.25