

Supplementary Information

Investigation of the ternary system water/hydrochloric acid/polyamide 66 for the production of polymeric membranes by phase inversion

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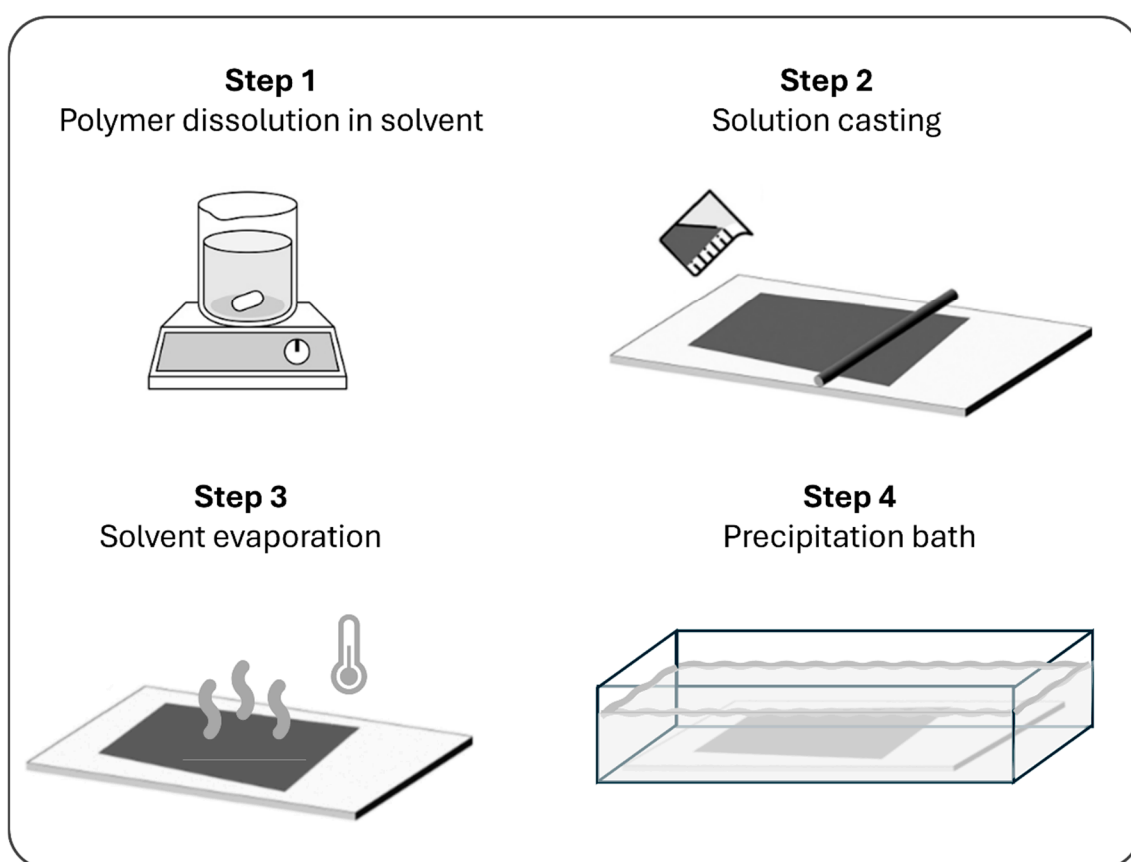


Figure S1. Schematic of the membrane preparation by immersion precipitation technique.

Table S1. Values of ΔG_m as a function of i for the H₂O/FA and H₂O/HC systems.

H ₂ O/FA		H ₂ O/HC	
ϕ_i (H ₂ O)	ΔG_m (J·mol ⁻¹)	ϕ_i (H ₂ O)	ΔG_m (J·mol ⁻¹)
0.235637	-1327.35	0.82381	-1086.66
0.266501	-1407.35	0.827854	-1071.62
0.29522	-1472.11	0.832018	-1064.1
0.334987	-1544.49	0.83702	-1034.02
0.378801	-1601.63	0.841598	-1011.46
0.421286	-1639.72	0.858912	-951.28

Table S2. Concentration dependence summary of the (g_{12}) non-solvent/solvent interaction parameter for the H₂O/FA and H₂O/HC systems.

FA						
Cubic fit		$-6.24767 + 28.08873\varphi_1 - 63.18037\varphi_1^2 + 48.67504\varphi_1^3$				
H ₂ O fraction (φ_1)	0.235637	0.266501	0.29522	0.334987	0.378801	0.42128
g_{12}	-2.50	-2.33	-2.21	-2.10	-2.03	-1.99
HC						
Cubic fit		$15261.5383 - 54129.187\varphi_1 + 63997.7629\varphi_1^2 - 25228.632\varphi_1^3$				
H ₂ O fraction (φ_1)	0.82381	0.82785	0.83202	0.83702	0.8416	0.85891
g_{12}	-2.77	-2.97	-3.08	-3.22	-3.30	-3.60