Engineering Membrane Distillation with Nanofabrication: Design, Performance and Mechanisms

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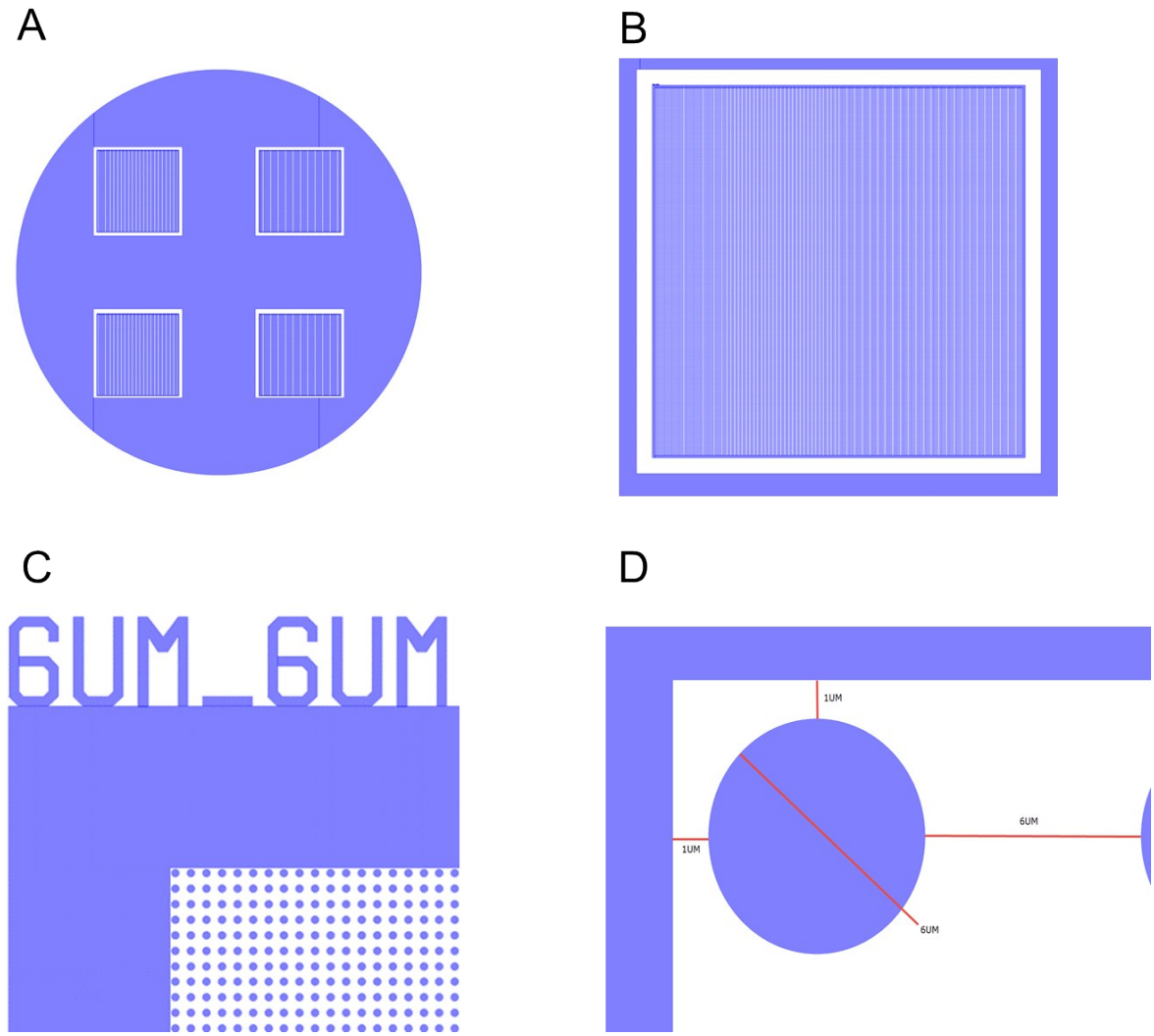

Figure S1: Mask template designed for nanoimprinting membrane distillation membrane. The mask overview were displayed in (A) and (B). Details of the patterns were presented in (C) and (D) where the centre-to-centre distance is 6 µm and the dot diameter is 6 µm.

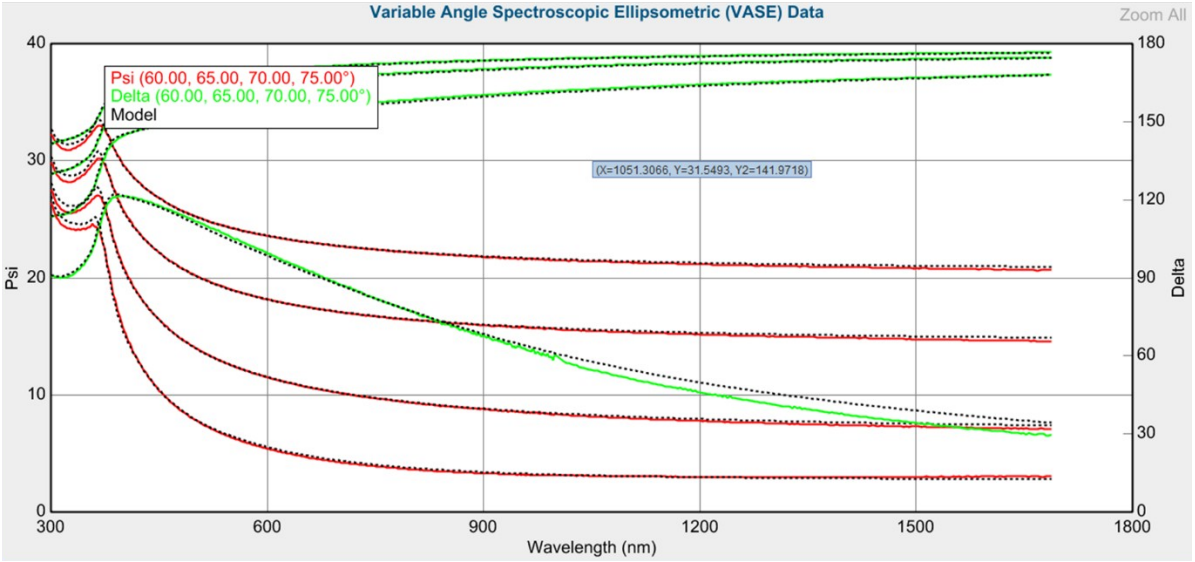

Figure S2: Representative variable angle spectroscopic ellipsometric estimation of TiO_2 thin-film thickness deposited by atomic layer deposition. Data fitting showed the thickness of 5.56 ± 0.11 nm (two samples from three measurements).

Table S1: Key membrane properties of the pristine membrane, atomic layer deposited (ALD) membrane and fluorinated ALD membrane.

Membrane	Pore size (μm)	Liquid entry pressure (bar)	Water contact angle (°)
Pristine	0.41	2.04	135
Atomic layer deposited membrane (ALD)	0.33	2.64	112
Fluorinated ALD membrane (FTES)	0.31	3.81	154