Supporting information for article:
Vapor-based synthesis of ultrathin hydrogel coatings for thermo-responsive nanovalves

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**Fig. S1** SEM images of the a) pristine polycarbonate membrane and b) hydrogel-coated membrane (M₂) viewed at the top surfaces. Inset: enlarged view of some interconnected pores.

**Fig. S2** SEM images of the bottom surfaces of a) M₁ and b) M₂.

**Fig. S3** Swelling ratio of the P(DMAEMA-co-EGDA) coatings with $r = 0.60$ in the PBS solution.