Electronic Supplementary Material (ESI) for RSC Advances.

Photoresponsive Nanostructured Membranes

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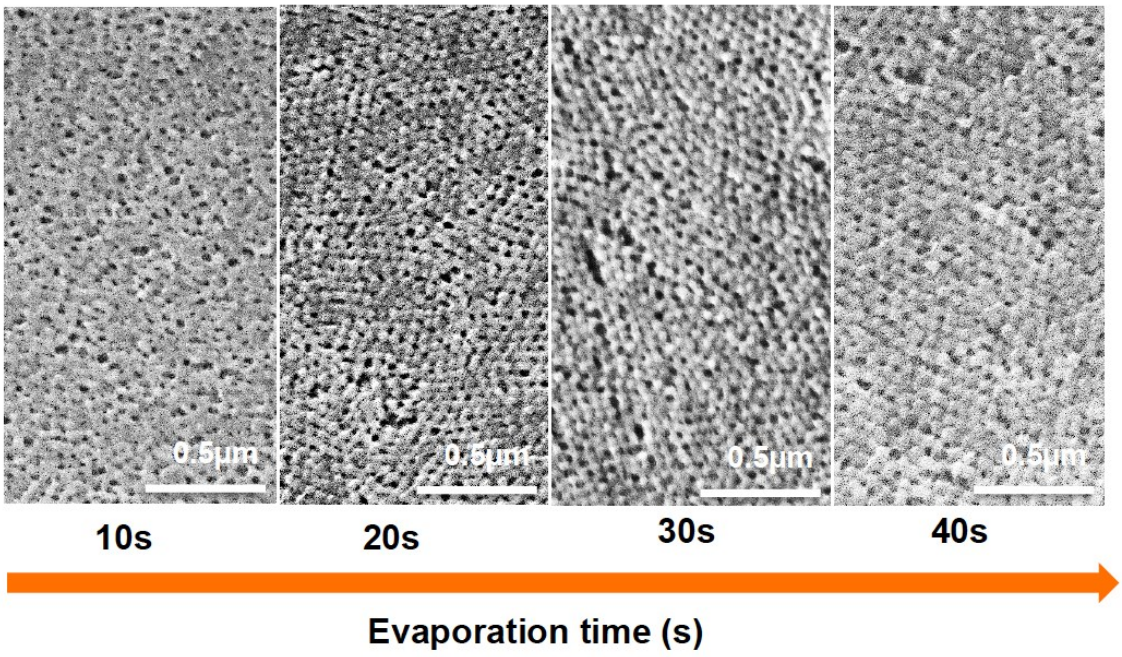

Figure S1. SEM images of membranes surfaces cast from 18 wt% PS_{43K}-*b*-$PAnMMA_{1.5K}$-*b*-$PMMA_{105K}$ copolymer solutions in 35/29/18 DMAc/Acetonitrile/THF with different evaporation times.

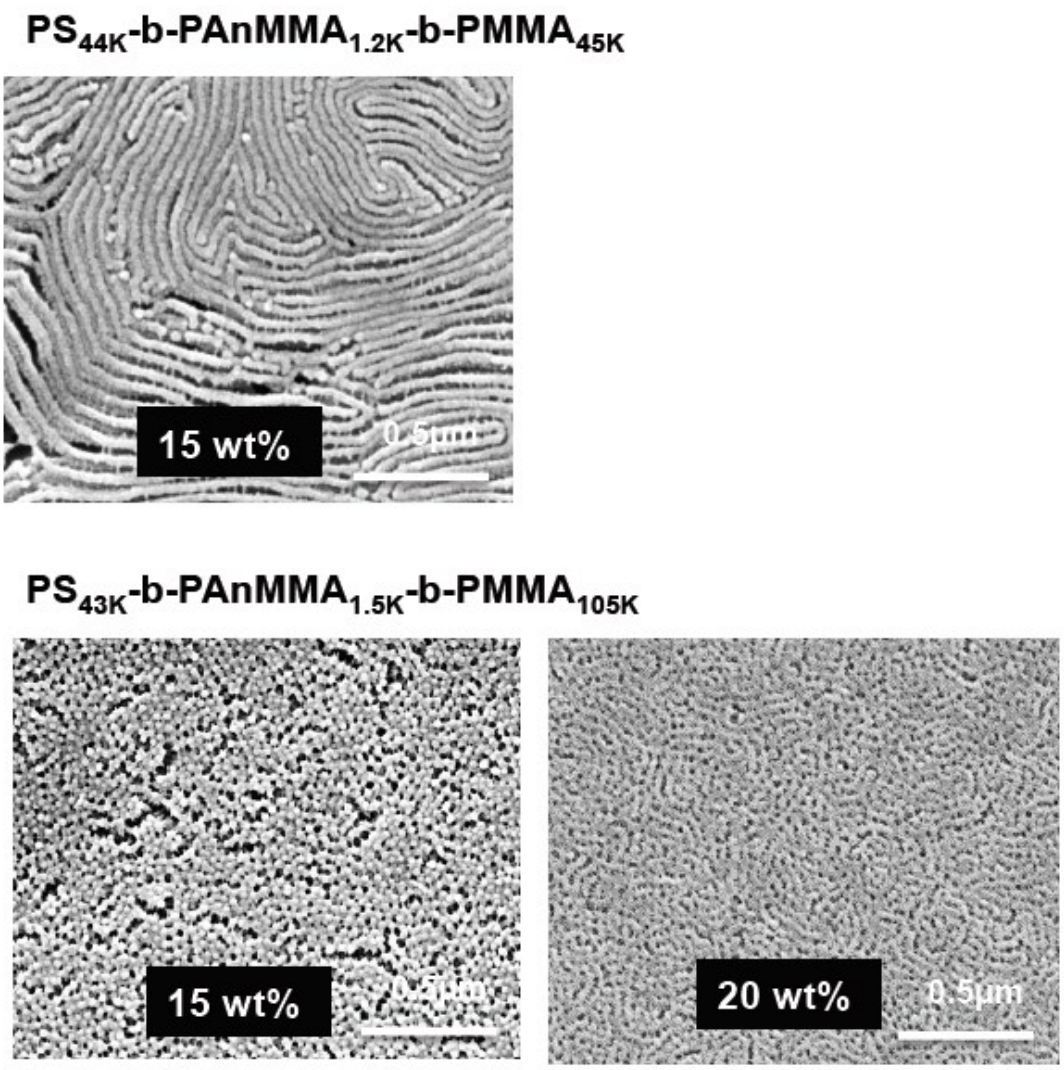

Figure S2. SEM images of membranes surfaces cast from 15 wt% PS_{44K}-*b*-$PAnMMA_{1.2K}$-*b*-$PMMA_{45K}$ copolymer solution in DMAc/Acetone/THF with 10 s evaporation time; membranes surfaces cast from PS_{43K}-*b*-$PAnMMA_{1.5K}$-*b*-$PMMA_{105K}$ copolymer solutions with different concentrations in DMAc/Acetonitrile/THF with 20 s evaporation time membranes.

Table 1 Hansen solubility parameters for polymer and solvents[31]

	δ_D	δ_P	δ_H	$\delta = (\delta_D^2+\delta_P^2+\delta_H^2)^{1/2}$
PS	18.6	1.0	4.1	19.1
PMMA	18.6	10.5	7.5	22.6
Water	15.6	16.0	42.3	47.8
DMAc	16.8	11.5	10.2	22.3
Acetone	15.5	10.4	7.0	19.9
THF	16.8	5.7	8.0	19.5
Acetonitrile	15.3	18.0	6.1	24.4

δ_D : Dispersion forces (van der Waals), δ_P: Polarity and δ_H: hydrogen bonding