

Protein Separation Performance of Self-Assembled Block Copolymer Membranes

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Supporting Information

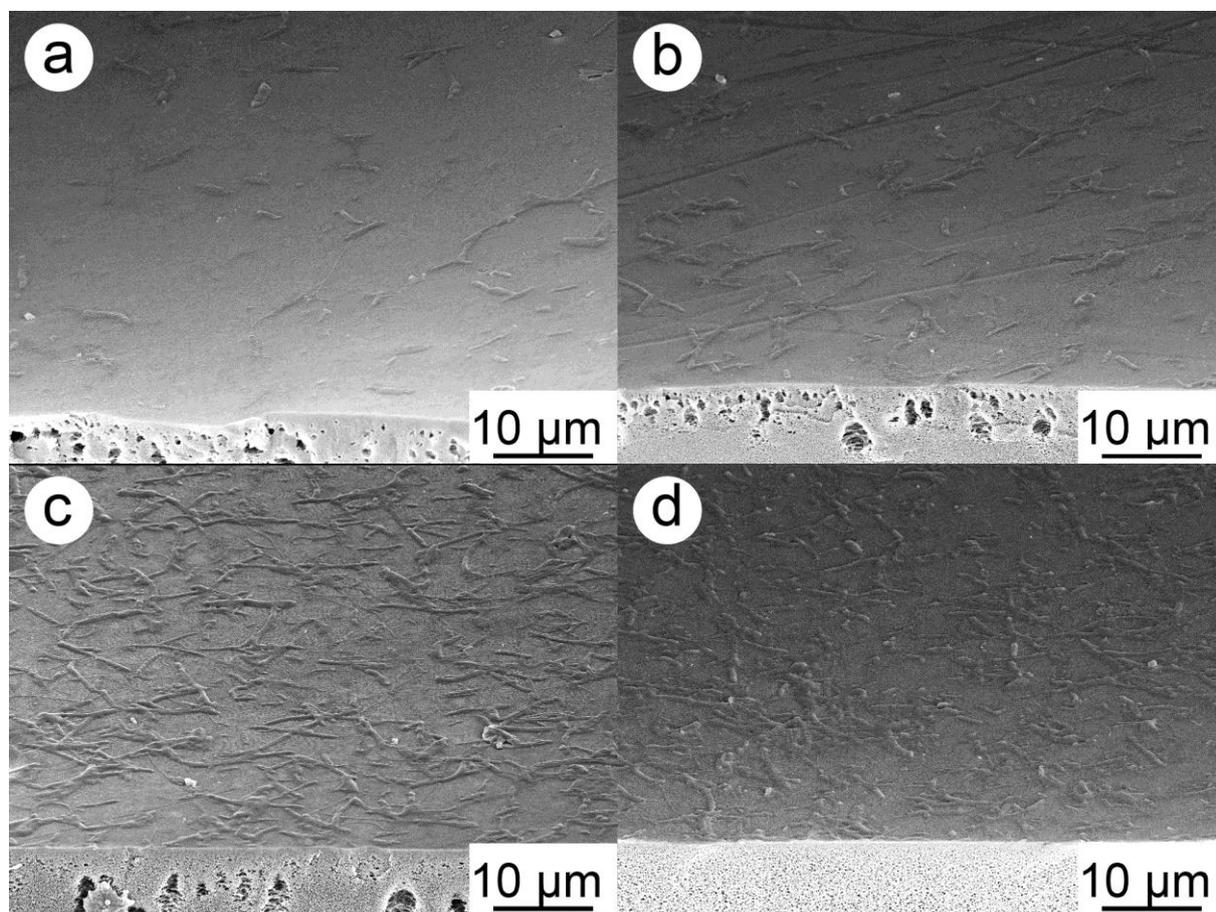


Fig. S1: Bacteria on PS-*b*-P4VP membranes after 40 h clean water flux measurements: M17 (a), M23 (b), M34 (c), M53 (d).

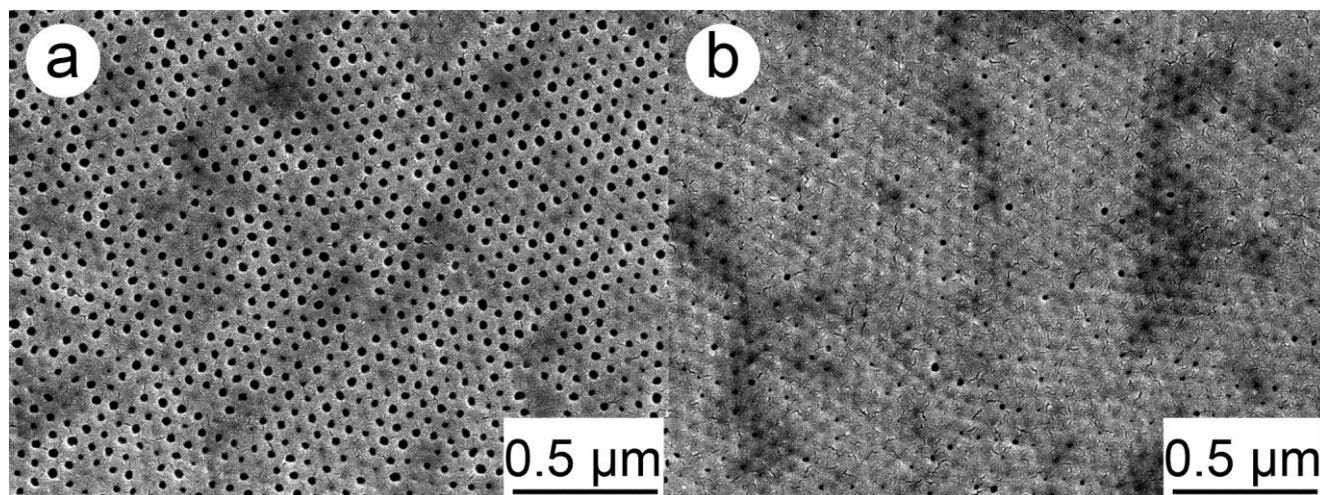


Fig. S2: Membranes after adsorption measurements with Cat, M34 at pH 7.4 (a) and M34 at pH ~ IEP (b).

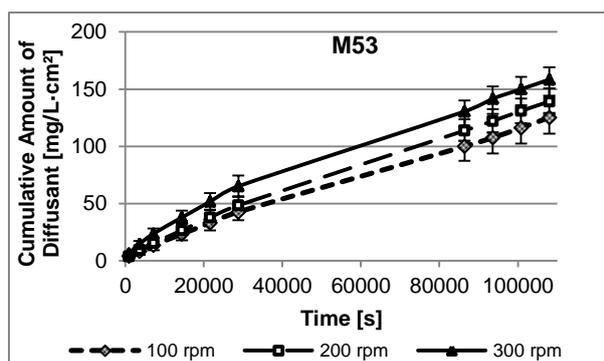


Fig. S3: Diffusion profiles of Myo (1 mg/mL) in 10 mM PBS through M53 with regard to varying stirring speeds of 100 rpm, 200 rpm, and 300 rpm at pH 7.4 and 37 °C.

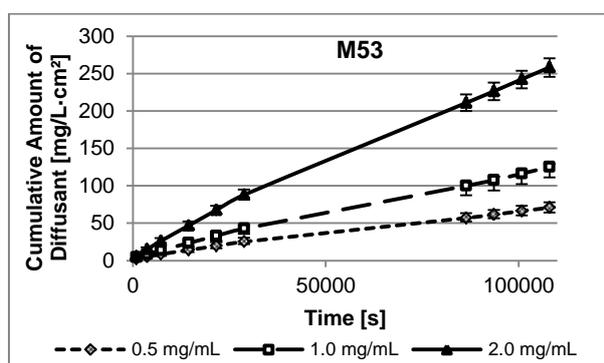


Fig. S4: Diffusion profiles of Myo in 10 mM PBS through M53 with regard to varying initial protein concentrations in the donor chamber of 0.5 mg/mL, 1.0 mg/mL, and 2.0 mg/mL at pH 7.4 and 37 °C.

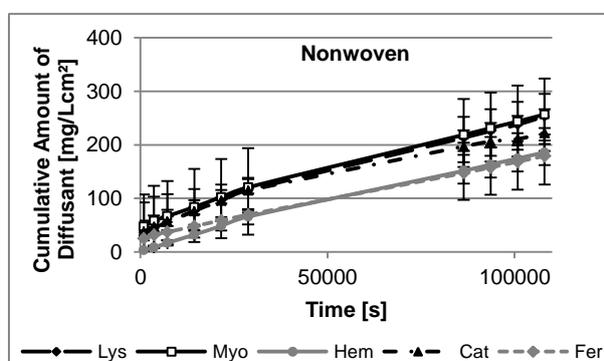


Fig. S5: Cumulative Amount of diffusant in the receptor chamber over time for five different model proteins, namely Lys, Myo, Hem, Cat, and Fer (1 mg/mL) in 10 mM PBS through the nonwoven at pH 7.4, 100 rpm and 37 °C.

Tab. S1: Separation selectivity of the nonwoven at pH 7.4, 100 rpm and 37 °C.

S	Lys	Myo	Hem	Cat	Fer
Lys	1.0	0.9	0.9	0.9	0.6
Myo	1.1	1.0	0.9	1.0	0.7
Hem	1.2	1.1	1.0	1.1	0.7
Cat	1.1	1.0	0.9	1.0	0.7
Fer	1.6	1.5	1.4	1.5	1.0

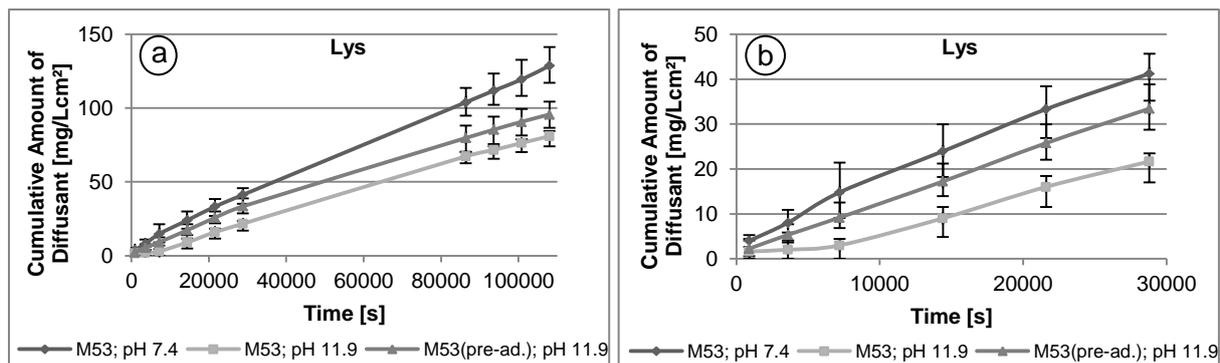


Fig. S6: Cumulative Amount of diffusant in the receptor chamber over time for Lys (1 mg/mL) in 10 mM PBS at pH 7.4 and pH ~ IEP through M53 with and without pre-adsorption of Lys at pH 7.4, 100 rpm and 37 °C depicted for (a) 30 h and (b) enlarged for the initial 8 h of the experiments.

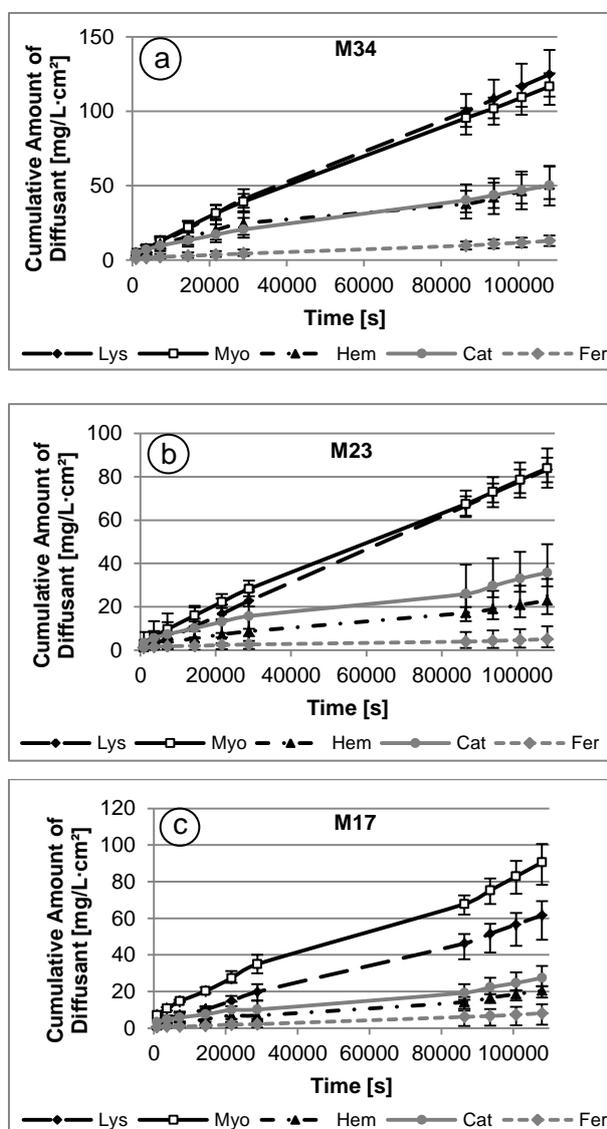


Fig. S7: Cumulative amount of diffusant in the acceptor chamber over time for M34 (a), M23 (b), and M17 (c) measured in 10 mM PBS at pH 7.4, 37 °C, and 100 rpm.

Notes and references

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