Electronic Supplementary Information

Redox responsive organometallic nanotubes by template assisted layer by layer fabrication

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Nanotube wall thickness determination protocol

PFS polyanions and polycations were alternatively deposited into membrane template. After surface removal, thickness of the deposited films was determined by the top view SEM observation of the pore sizes upon each deposition cycle. The addition of each layer led to a regular decrease of the inner pore size (Figure S1,). The inner pore diameter (nm), as a function of bilayer number, was summarized in Table 1 of the manuscript. The mean thickness of the multilayer film was determined to 6 nm ($\pm$ 10%) for a single layer deposited in the PC template and 3 nm ($\pm$ 9%) for the Alumina template.
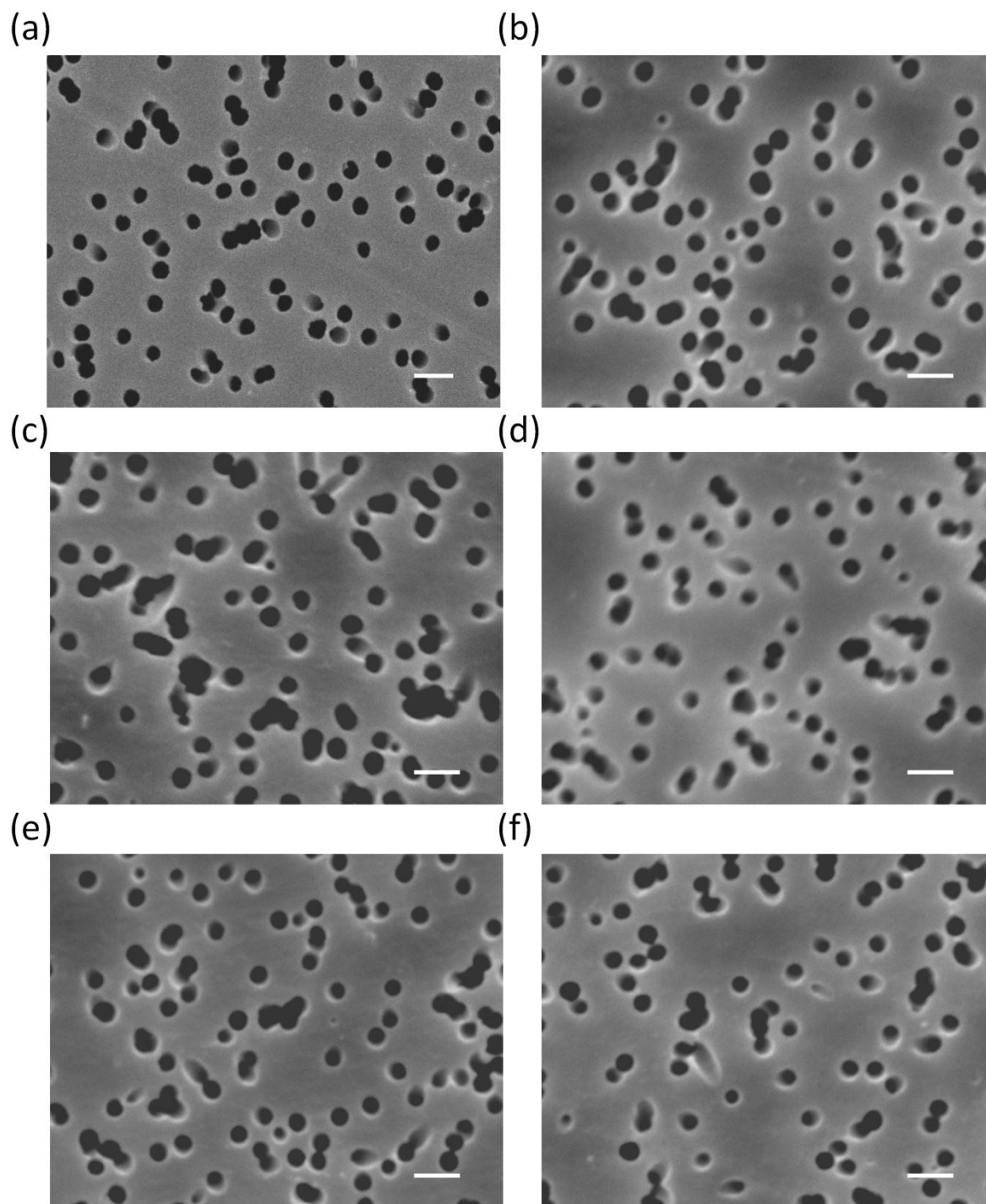
(a)

(b)

(c)

(d)

(e)

(f)

Figure S1. Top view SEM images of (a) a blank PC substrate (b) a $(PFS^-/PFS^+)_1$ coated PC membrane (c) a $(PFS^-/PFS^+)_2$ coated PC membrane (d) a $(PFS^-/PFS^+)_3$ coated PC membrane (e) a $(PFS^-/PFS^+)_4$ coated PC membrane (f) a $(PFS^-/PFS^+)_5$ coated PC membrane. All the SEM images are taken after surface removal. Scale bar = 1μm for all images