Electronic Supplementary Information

Large scale free-standing open-ended TiO_2 nanotube arrays: stress-induced self-detachment and *in-situ* pore opening

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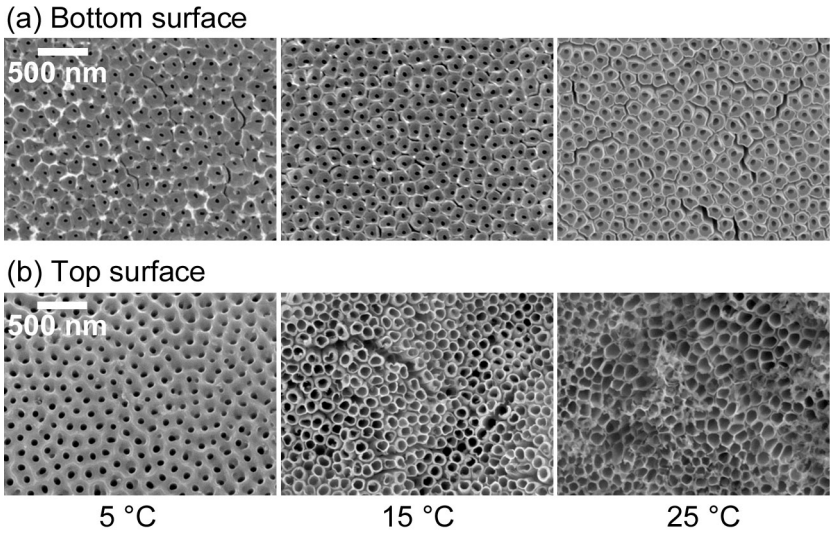

Fig. S1 (a) Bottom surface and (b) top surface SEM images of TiO_2 nanotube membranes formed at 100 V at different anodization temperature varied from 5 °C to 25 °C.

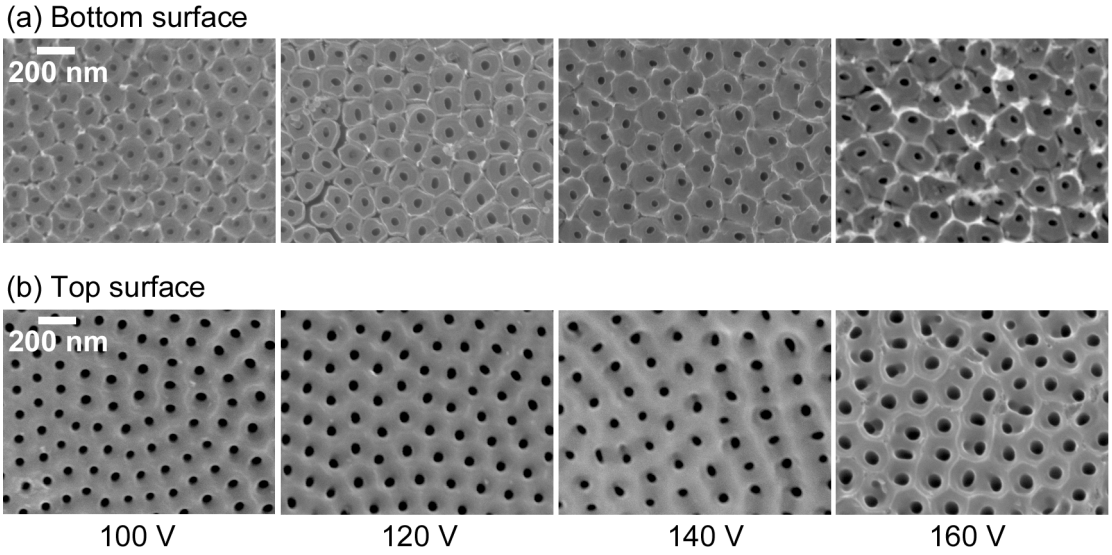

Fig. S2 (a) Bottom surface and (b) top surface SEM images of TiO_2 nanotube membranes formed in an anodization temperature of 5 °C at different voltages varied from 100 V to 160 V.

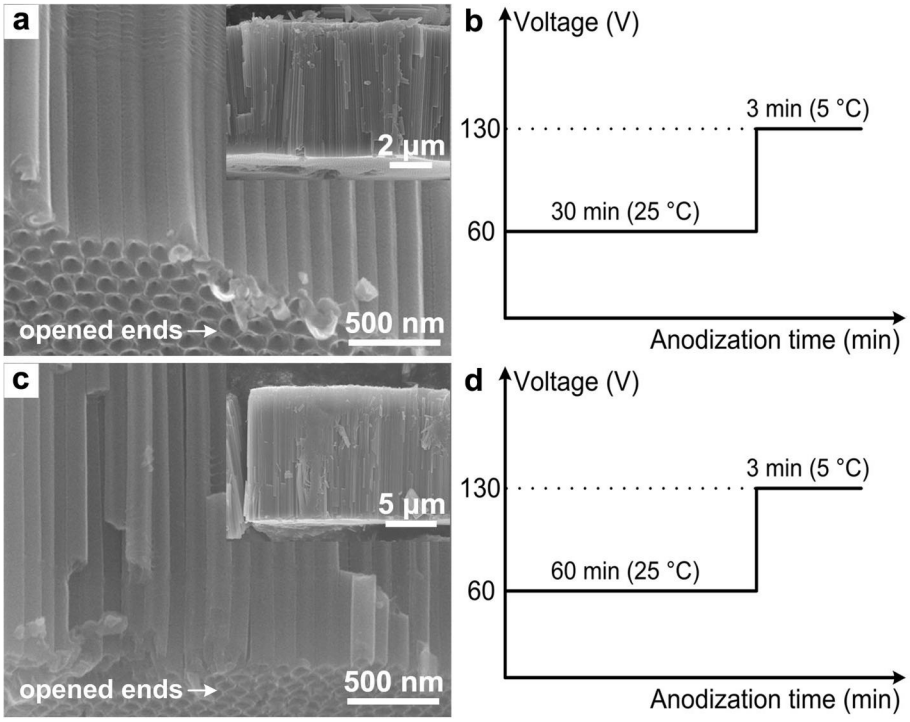

Fig. S3 Cross-section SEM images and corresponding anodization sequences of TiO_2 nanotube arrays synthesized in EG electrolyte with 0.3 wt% NH_4F and 2 vol% H_2O: (a–b) 60 V at 25 °C for 30 min followed by 130 V at 5 °C for 3 min; (c–d) 60 V at 25 °C for 60 min followed by 130 V at 5 °C for 3 min.