

Supporting Information

Microwave-Annealing-Induced Nanowetting: A Rapid and Facile Method for Fabrication of One-Dimensional Polymer Nanomaterials

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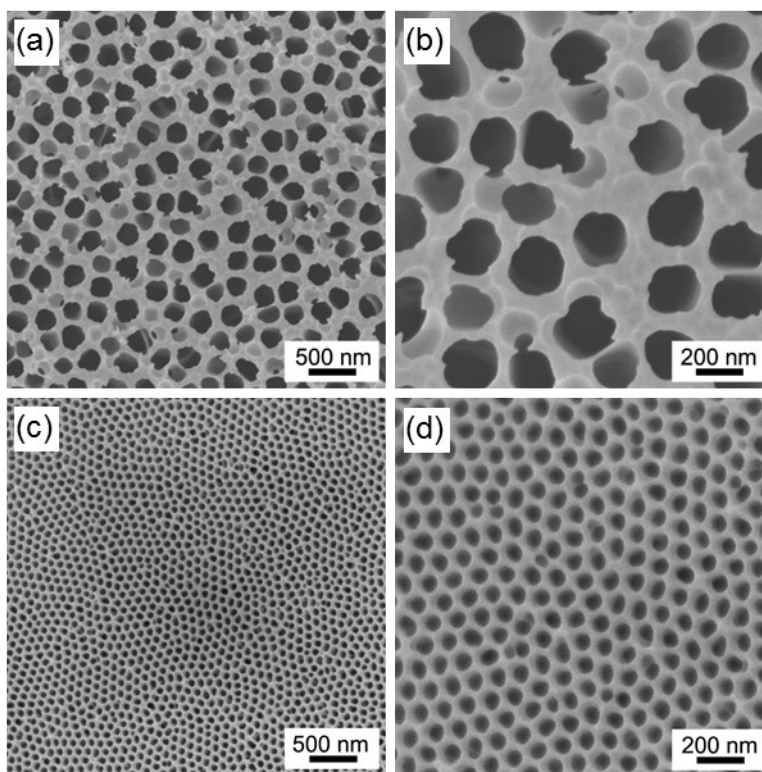


Figure S1. (a and b) SEM images of commercial AAO templates with lower and higher magnifications. The average pore diameter of the commercial templates is ~ 237 nm. (c and d) SEM images of

synthesized AAO templates with lower and higher magnifications. The average pore diameter of the synthesized templates is ~60 nm.

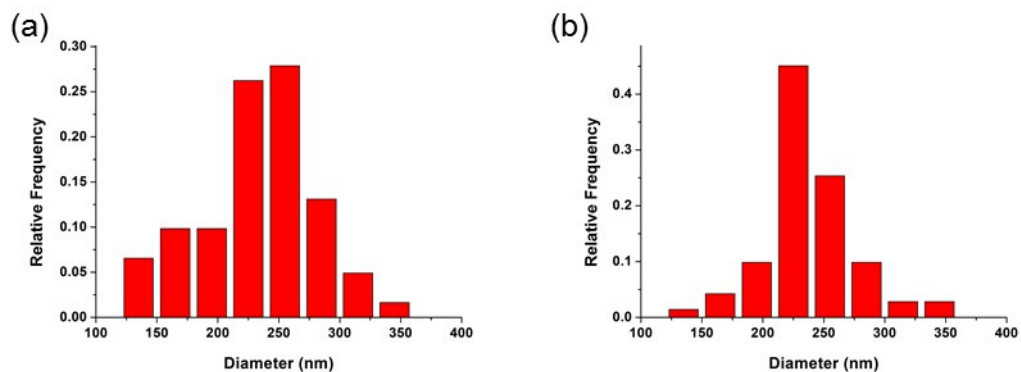


Figure S2. Size distribution diagrams of the PS (M_w : 35 kg/mol) nanomaterials fabricated by the thermal annealing method using commercial AAO templates at different annealing conditions. (a) PS nanorods by annealing at 120 °C for 30 min. The average diameter of the PS nanorods is ~233 nm. (b) PS nanotubes by annealing at 190 °C for 30 min. The average diameter of the PS nanotubes is ~247 nm.

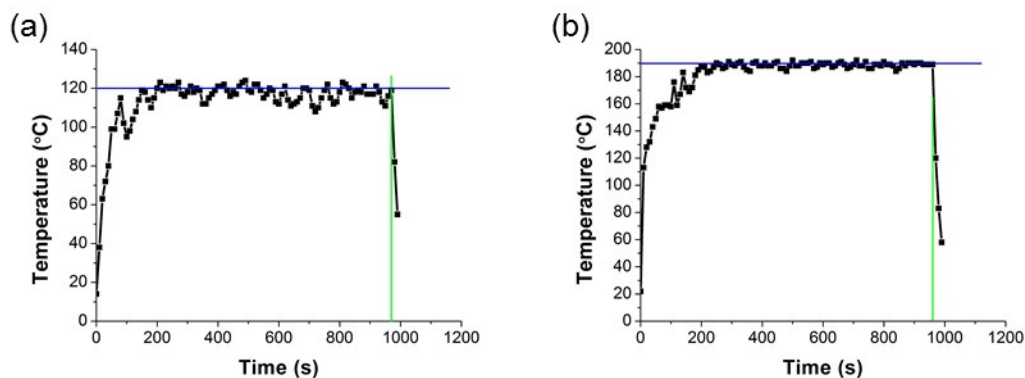


Figure S3. Heating profiles under different microwave annealing processes using 1×1 cm² silicon wafers: (a) 120 °C at 10 W for 15 min and (b) 190 °C at 30 W for 15 min. The blue and green lines indicate the set temperatures and times, respectively.

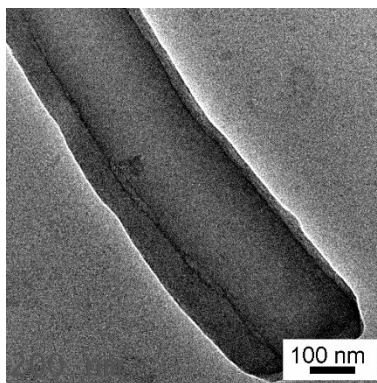


Figure S4. TEM image of a PS (M_w : 35 kg/mol) nanotube fabricated by the MAIN method using a commercial AAO template at 190 °C at 30 W for 15 min.

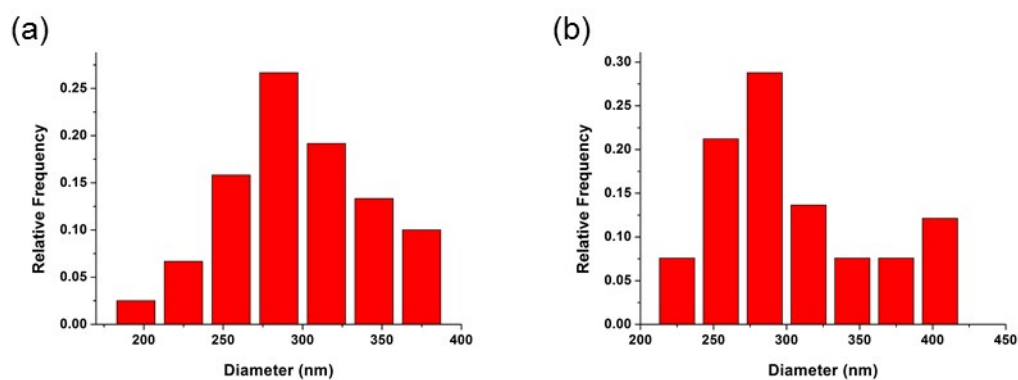


Figure S5. Size distribution diagrams of the PS (M_w : 35 kg/mol) nanomaterials fabricated by the MAIN method using commercial AAO templates at different annealing conditions. (a) PS nanorods by annealing at 120 °C at 10 W for 15 min. The average diameter of the PS nanorods is ~298 nm. (b) PS nanotubes by annealing at 190 °C at 30 W for 15 min. The average diameter of the PS nanorods is ~308 nm.

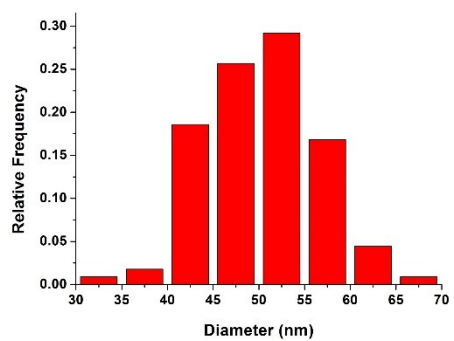


Figure S6. Size distribution diagram of the PS (M_w : 35 kg/mol) nanorods fabricated by the MAIN method using synthesized AAO templates at 120 °C at 5 W for 3 min. The average diameter of the PS nanorods is ~50 nm.