

Supporting Information

Precise Regulation of Tilt Angle of Si Nanostructures by Metal-assisted Chemical Etching

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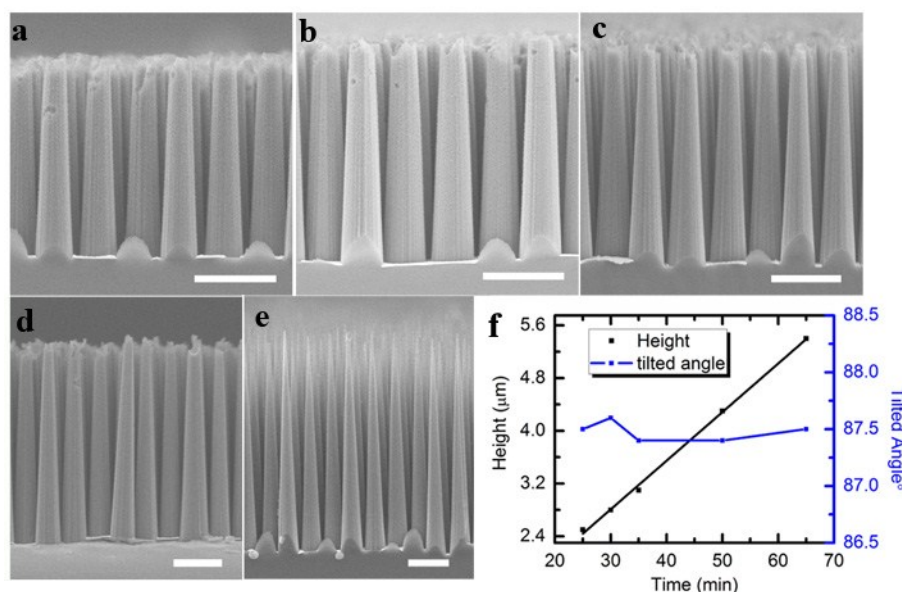


Figure S1. SEM images of Si nanocone arrays fabricated by etching for (a) 25 min, (b) 30 min, (c) 35 min, (d) 50 min and (e) 65 min, respectively. (f) The correlation of the etching duration and the tilted angle as well as the height of nanocones. Scale bars in Figure S1a to e are 1 μm. The volume ratio of HF, H₂O₂, and C₂H₅OH in etchant is 3:1:20.

Table S1. Composition of etchant and etching duration for the fabrication of nanocones shown in Figure 3.

Sample	HF(mL)	H ₂ O ₂ (mL)	C ₂ H ₅ OH (mL)	Time (min)
a	3.35	0.65	20	110
b	3	1	20	42
c	2.75	1.25	20	30
d	2.5	1.5	20	30
e	2.25	1.75	20	40
f	2	2	20	30

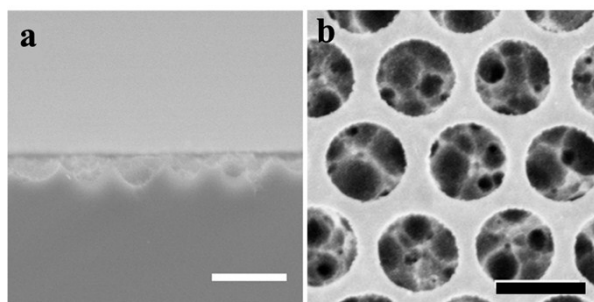


Figure S2. (a) Side-view and (b) top-view SEM images of rough nanotips. Scale bars represent 500 nm

Table S2. Composition of etchant and etching duration for the fabrication of nanocones shown in Figure 4.

Sample	HF(mL)	H ₂ O ₂ (mL)	C ₂ H ₅ OH (mL)	Time (min)
a	3	1	15	65
b	3	1	25	65
c	3	1	35	70
d	3	1	40	80
e	3	1	45	90
f	3	1	50	90