Anion F^--induced Etching of Silicon Nanowires with Diverse Doping Levels, Surface Crystalline Orientations and Porosity

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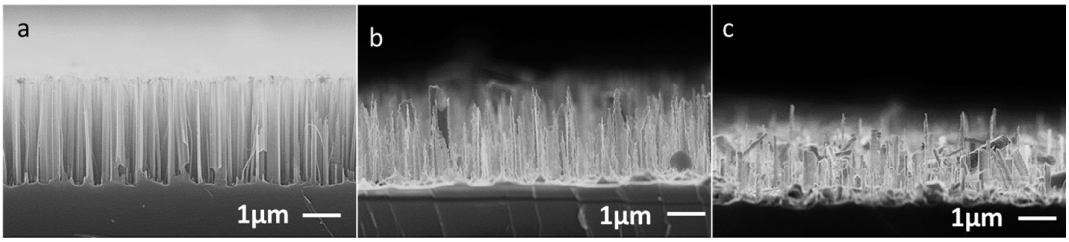

Fig. S1 Etching of n^--SiNWs(100) by 40% NH_4F with duration of (a) 1 min, (b) 3 min and (c) 8 min. (a-c) SEM cross sectional images.

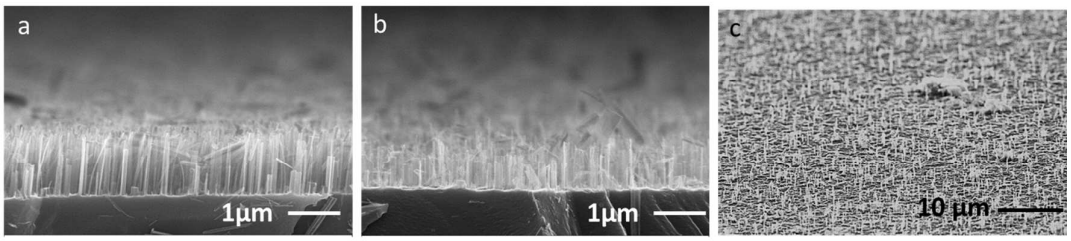

Fig. S2 Etching of n^+-SiNWs(111) by 40% NH_4F with duration of (a) 1 min, (b) 1.5 min and (c) 2 min. (a, b) SEM cross sectional images, and (c) SEM tilted image.

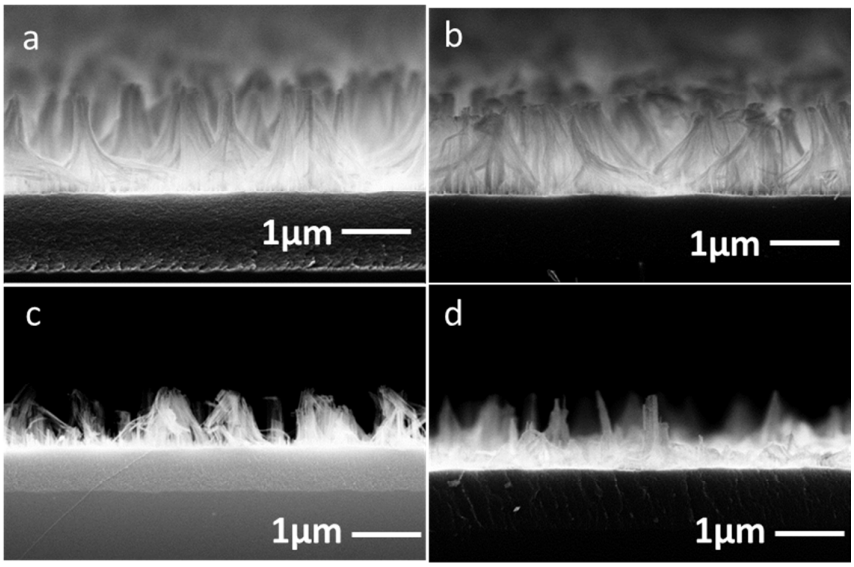

Fig. S3 Etching of n^{+2}-mpSiNWs(111) by 40% NH_4F with duration of (a) 0 min, (b) 0.5 min, (c) 1 min and (d) 1.5 min. (a-d) SEM cross sectional images.

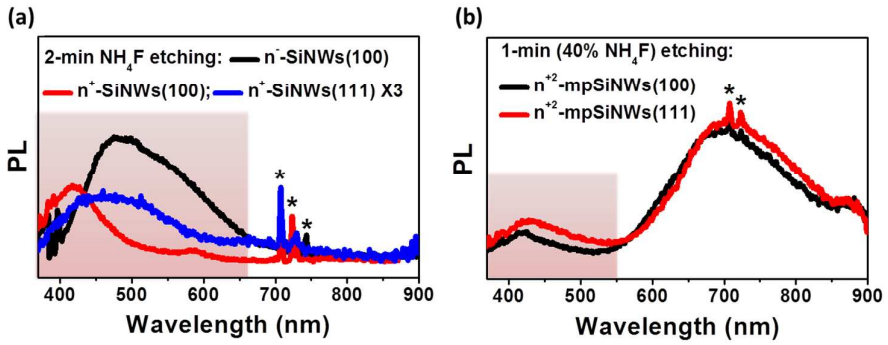

Fig. S4 PL spectra: (a) the three kinds of SiNWs etched by 40% NH_4F for 2 min; (b) the two kinds of mpSiNWs etched by 40% NH_4F for 1 min. The PL intensity of n^+-SiNWs(111) in (a) is amplified by 3 times. The light pink bands highlight the PL peaks stemming from the F-termination. The system noise in the home-made PL setup generates the peaks marked by asterisks.