## **Supplementary Information**

## Growth of Horizontally Aligned Single-Walled Carbon Nanotubes on Anisotropically Etched Silicon Substrate

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S1. SEM Images of SWNTs at different EtOH concentration (bubbled by Ar). For the figures below, the regular flow rate  $H_2$ /EtOH ratio of 80/300 sccm (see manuscript for the details) was changed to (a) 80/200 and (b) 80/500 sccm.

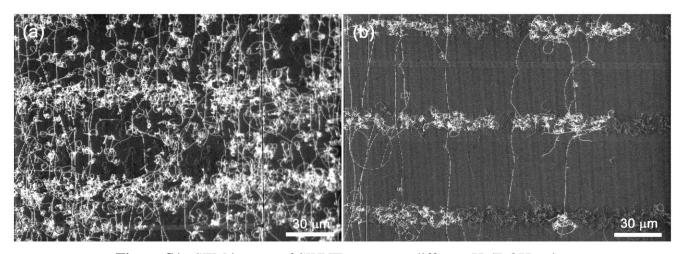
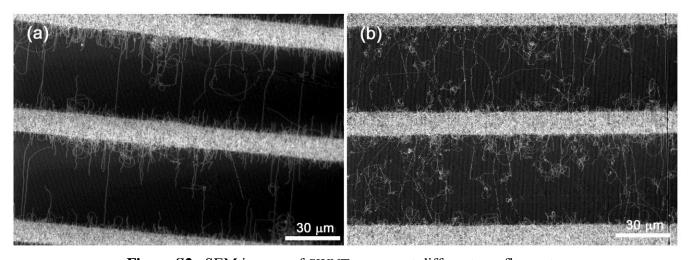


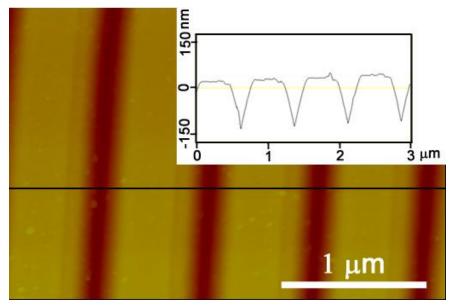
Figure S1. SEM images of SWNTs grown at different H<sub>2</sub>/EtOH ratios

S2. SEM Images of SWNTs at different total flow rates. Flow rates were increased by adding Ar together with EtOH (flow rate from bubbled Ar) during nanotube growth. Gas flow rates introduced during carbon nanotube growth were: (a) EtOH = 150 sccm + Ar = 950 sccm and (b) EtOH = 150 sccm + Ar = 500 sccm.



**Figure S2.** SEM images of SWNTs grown at different gas flow rates

S3. AFM image of the trench profile of the sample shown in Figure 7b. The sample retains its V-shape profile after CVD at 950°C. Inset is the trench profile measurement.



**Figure S3**. AFM image of the trenches of the sample in Figure 7b.