Self-Assembly of Large-Scale Micro-Patterns on Aligned Carbon Nanotubes Films **

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I. The process of water droplet permeating into the carbon nanotubes film

Figure 1 The side view of optical microscope images of water droplet spreading dynamic process recorded by real-time video. The change of the droplet shape can be observed clearly.

II. Typical high resolution SEM image of the polygon

Figure 2 The high resolution SEM image of the polygon. The carbon nanotubes are fallen down, bushed through from the low-density region, and eventually formed the cave.

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III. The TEM image of the as-prepared carbon nanotubes

Figure 3 The TEM image of carbon nanotubes in bamboo-like structure dispersed from the film. The diameter ranges from 40 nm to 60 nm.

IV. Top view of carbon nanotubes film

Figure 4 The top view of SEM image of the carbon nanotube film surface.