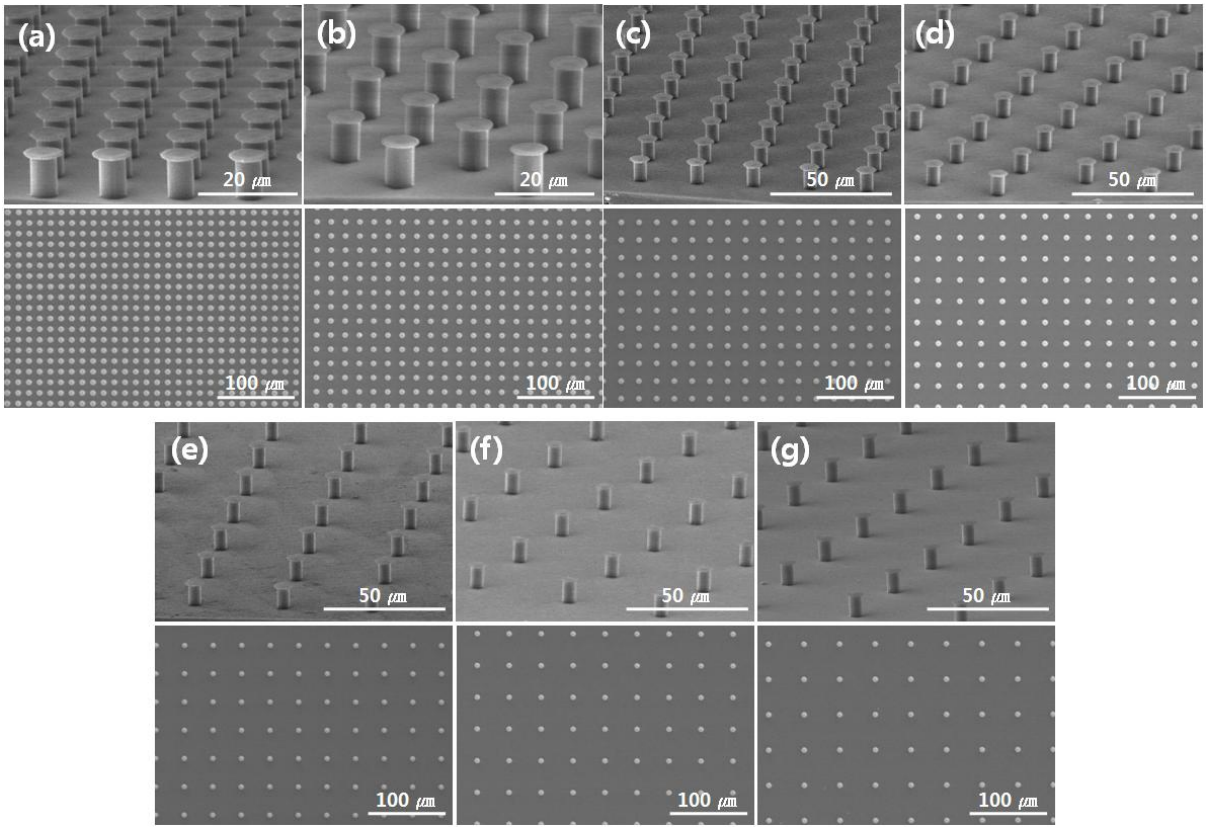

Figure S1. Additional SEM images of the fabricated PDMS micropillars with side (upper panels) and top views (lower panels). The micropillars, formed in square lattice, have 5-μm diameter, 10-μm height with different SRs: From (a) to (g), SR = 2, 3, 4, 5, 7, 8, and 9, respectively..

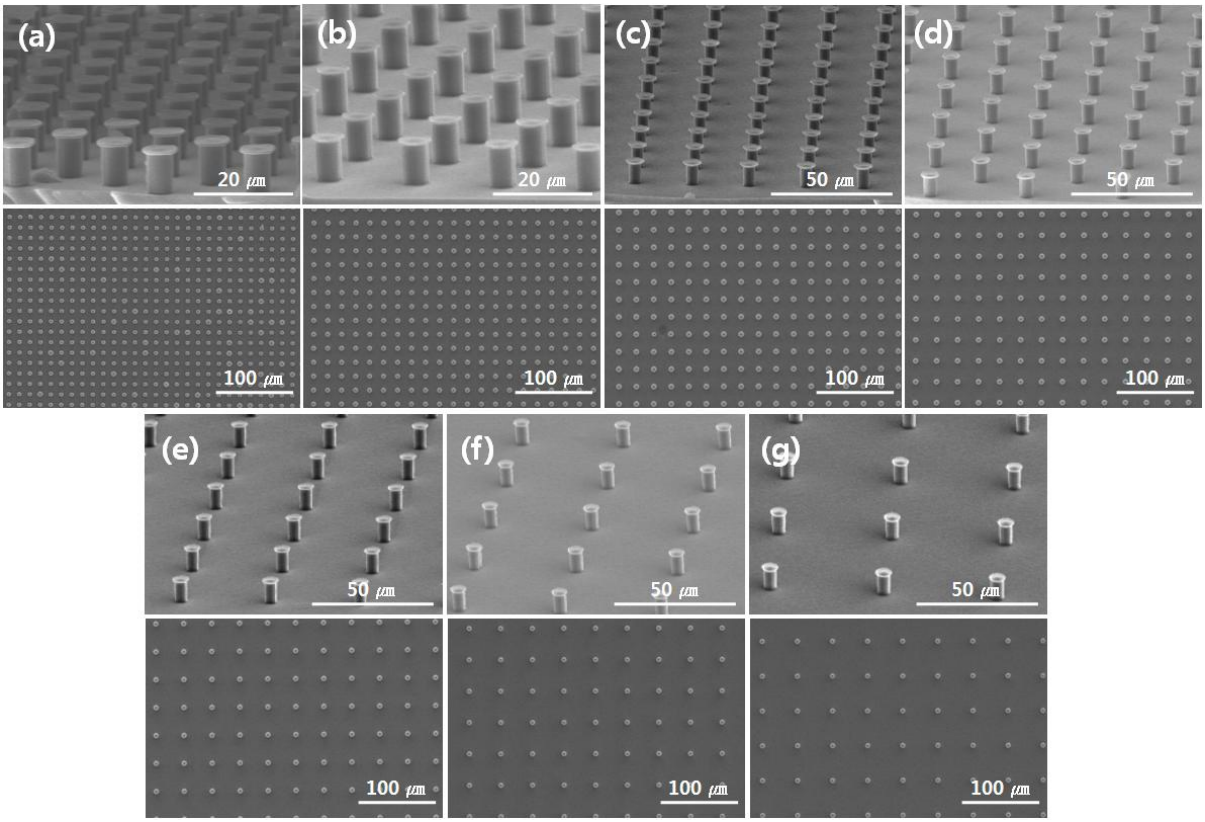

Figure S2. Additional SEM images of the fabricated PFPE micropillars with side (upper panels) and top views (lower panels). The micropillars, formed in square lattice, have 5-μm diameter, 10-μm height with different SRs: From (a) to (g), SR = 2, 3, 4, 5, 7, 8, and 9, respectively.

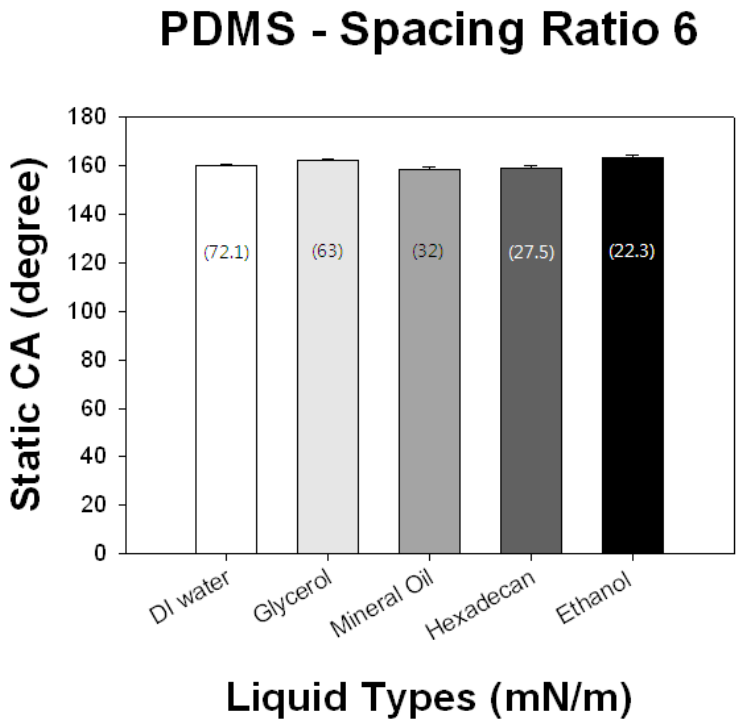

Figure S3. Static CAs of various liquids on PDMS micropillar arrays (SR = 6). The numbers within the bars indicate surface tension of each liquid. These micropillars show an optimal property for designing superomniphobic surfaces in our experiment.

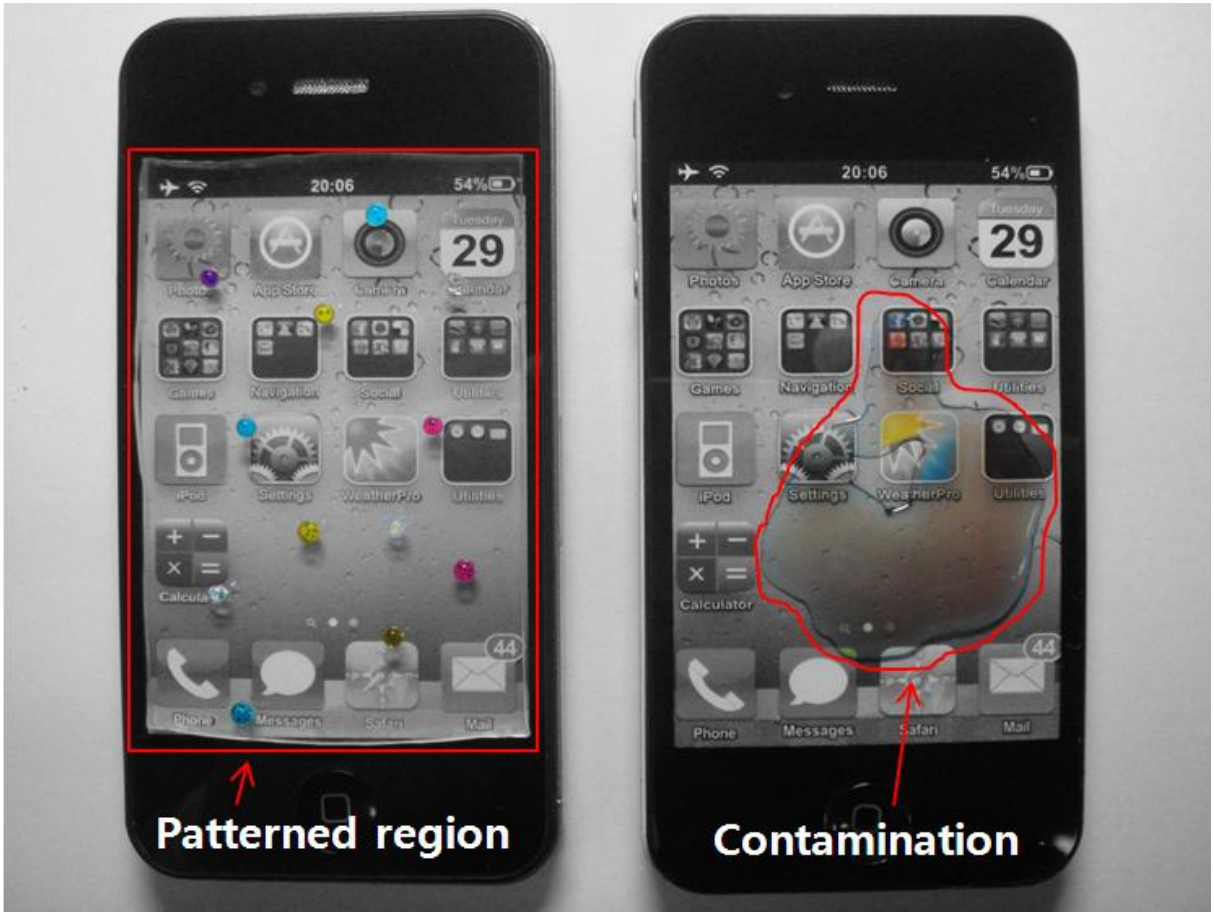

Figure S4. Demonstration of superomniphobic surfaces on touch-phone screens. The left figure shows that the superoleophobic surface (PDMS micropillar arrays, SR = 6) is not contaminated by various liquids: DI water (transparent), mineral oil (blue), hexadecane (red) and ethanol (yellow)**.** In contrast, the unmodified surface on the right is immediately wetted by the liquids upon contact.

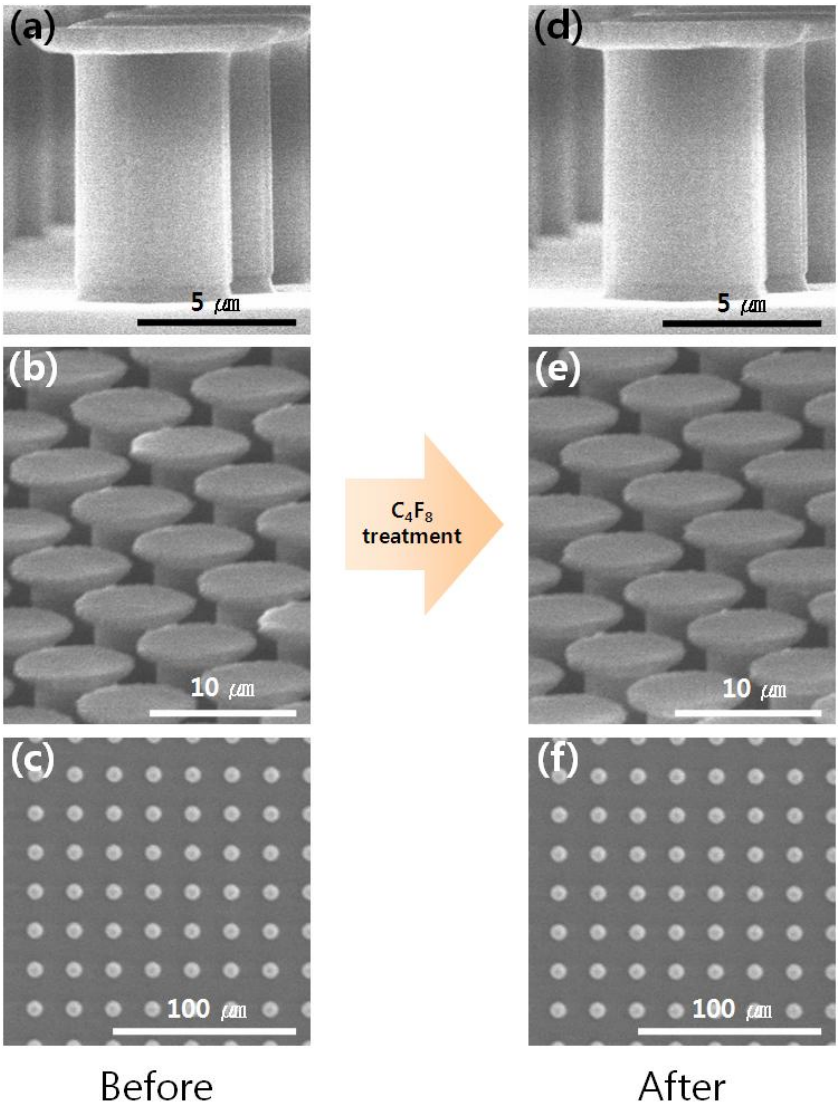

Figure S5. Surface modification results by C4F8 treatment. No significant differences were observed between non-C4F8 treatment PDMS surface (a-c) and the same surface with C4F8 treatment (d-f). As shown. the deposited layer of fluorocarbon compounds was thin (~50 nm) and uniformly coated.

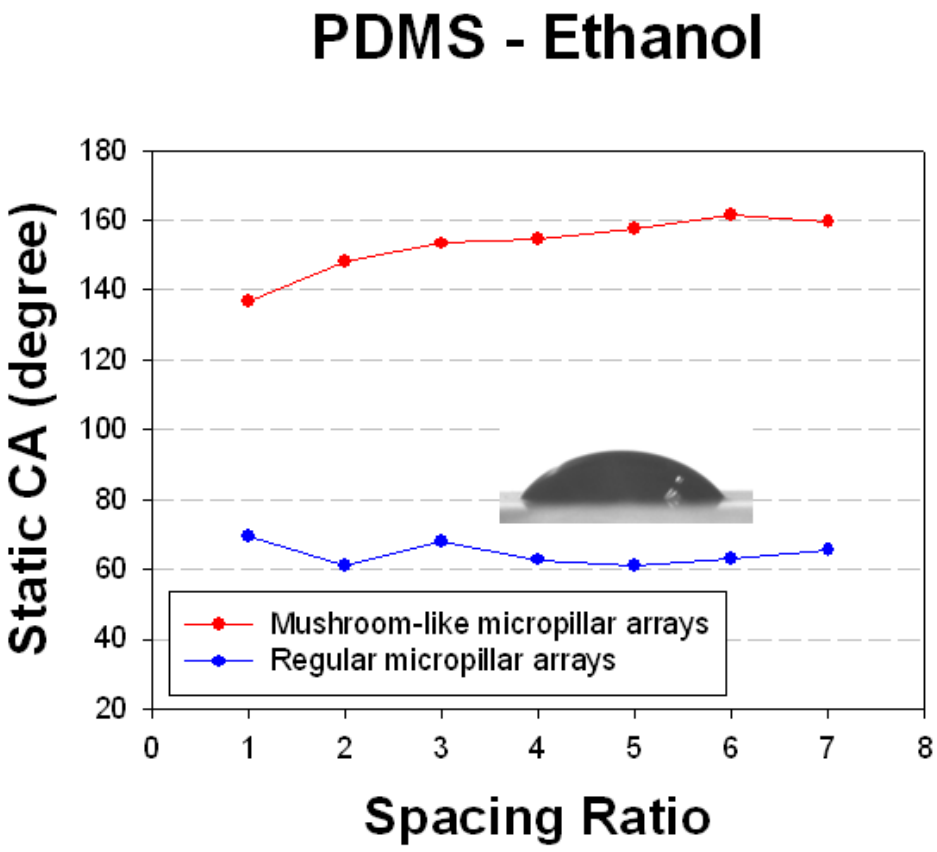

Figure S6. Change of static CAs with two types of PDMS micropillar arrays as a function of SR: Red line represents mushroom-like micropillar arrays with ethanol for SR < 8, showing superomniphobic properties (see Figure 2(c)). Blue line is for regular micropillar arrays having 5-μmpillar diameter and 10-μm height. The inset photograph shows the wetting shape of ethanol on the surface.