Supporting Information

One-pot Preparation of Fluorinated Mesoporous Silica Nanoparticles for Liquid Marble Formation and Superhydrophobic Surfaces

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**Figure S1.** XRD spectra of MSNs (black) and FMSNs (red). Both particles exhibit characteristic reflection peaks, (100), (110) and (200), of highly ordered hexagonal structures.

**Figure S2.** SEM images of surfaces before and after the water dripping test. (a) Micrograph of a surface prepared by using FMSNs and OSS binder before water dripping test. (b) Micrograph of the same surface after 18 h of water dripping. (c) Micrograph of a surface prepared without OSS binder before water dripping test. (d) Micrograph of the same surface after 18 h of water dripping.
Figure S3. Water contact angle change of surfaces with time after 18 h water dripping with (red) and without (blue) OSS binder. For the surface prepared without OSS binder water droplet spreads to the surface with time and contact angle decreases gradually. On the other hand, for the surface prepared with OSS binder, contact angle is constant.

Figure S4. SEM images of the surfaces after adhesive tape test. (a) Bare FMSN coating. Coating is partially removed from the surface after tape test. (b) FMSN coating prepared by using OSS binder. Coating cannot be removed with adhesive tape from the surface.