Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A.

Supporting Information

Mechanically bendable superhydrophobic steel surface with its self-cleaning and corrosion-resistant properties

Sanjay S. Latthe [a], P. Sudhagar [a], Anitha Devadoss [a], A. Madhan Kumar[b], Shanhu Liu [c], Chiaki Terashima[a], Kazuya Nakata[a], and Akira Fujishima*[a]

S1. Surface microstructure analysis

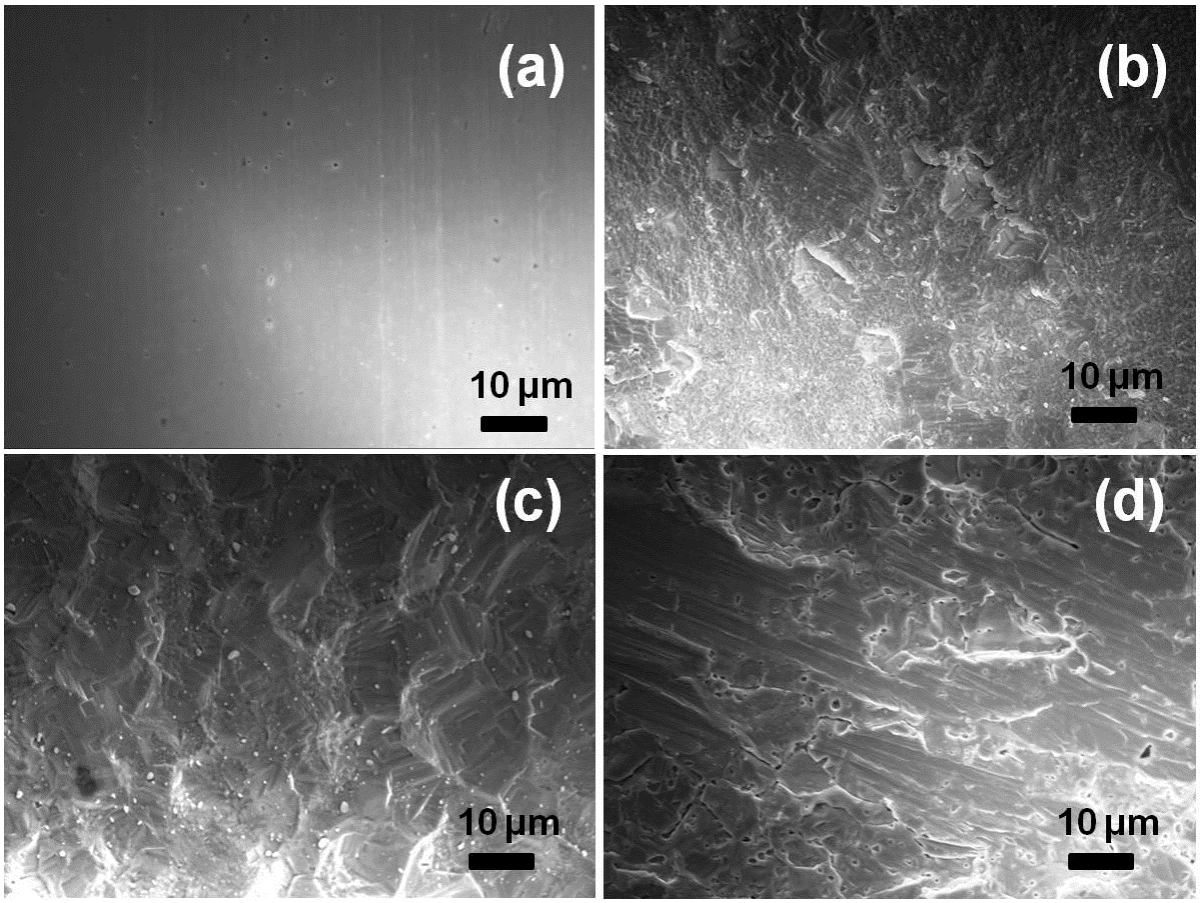

Figure S1. FE-SEM images of (a) bare 430-SS, (b) E-430-SS/1h, (b) E-430-SS/4h, and (b) E-430-SS/6h.

S2. Elemental analysis

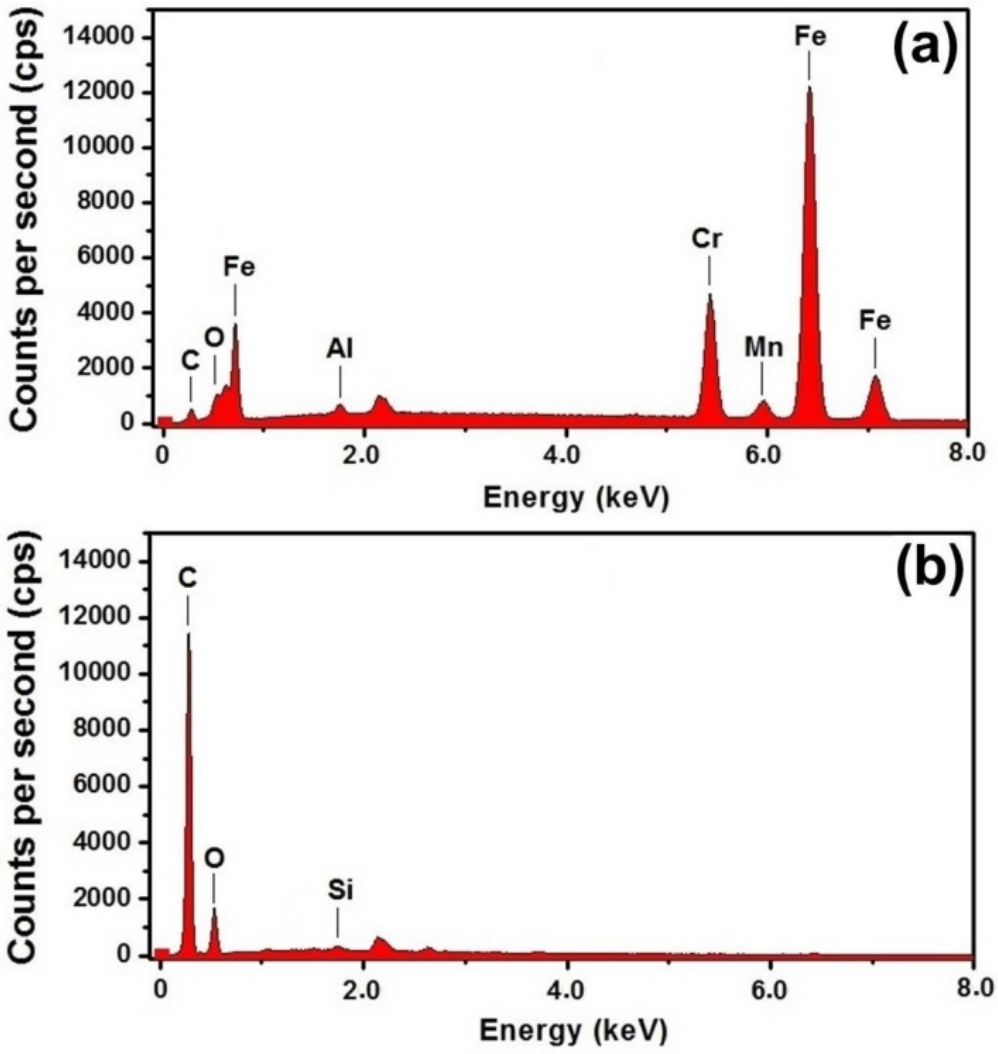

Figure S2. EDX spectra of (a) bare 430-SS (b) M-430-SS/8h.

S3. FE-SEM images of the superhydrophobic M-430-SS/8h surface after sandpaper abrasion test

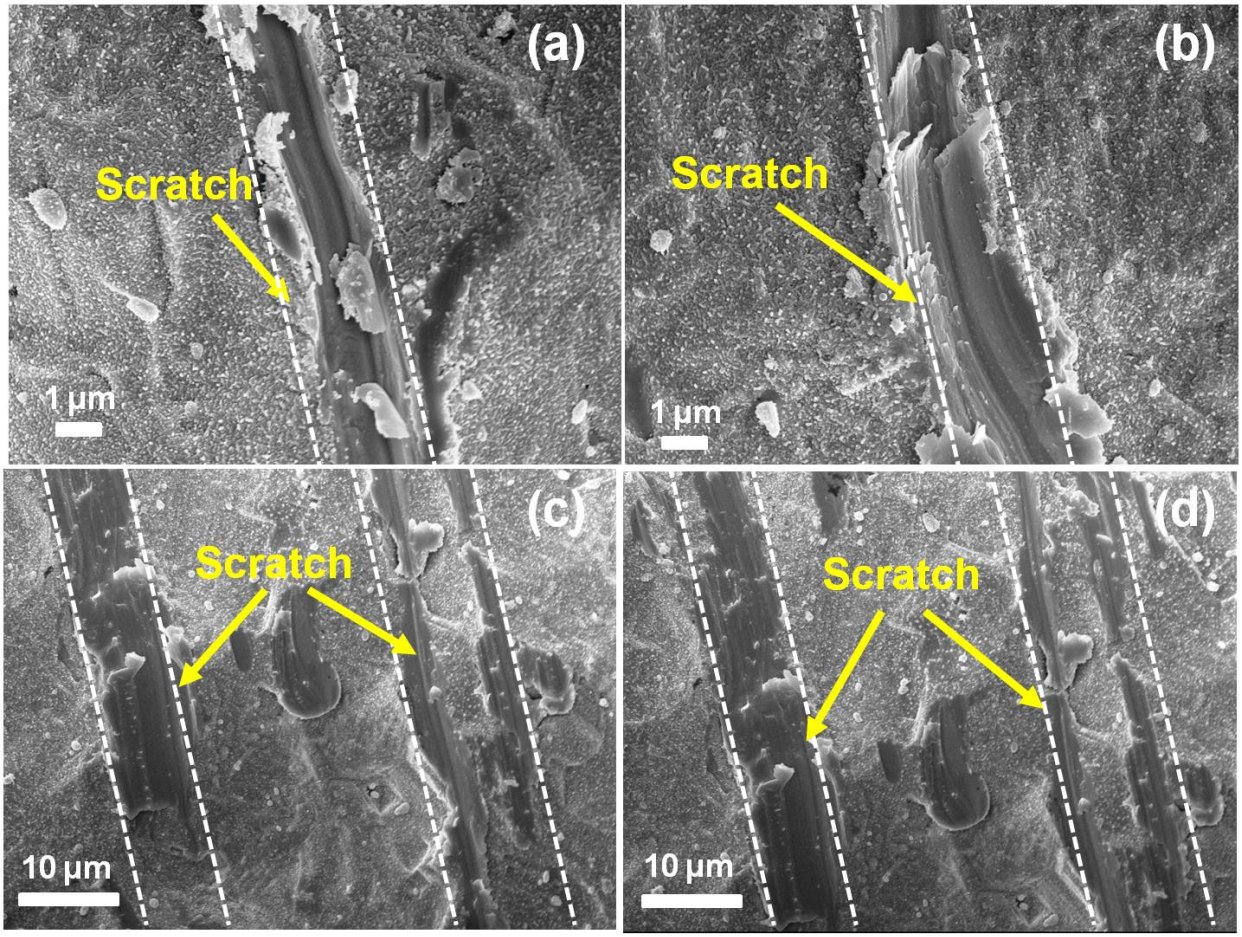

Figure S3. FE-SEM images captured from different position of the superhydrophobic M-430-SS/8h surface after sandpaper abrasion test.

S4. Laser microscope images of the superhydrophobic M-430-SS/8hr surface after sandpaper abrasion test

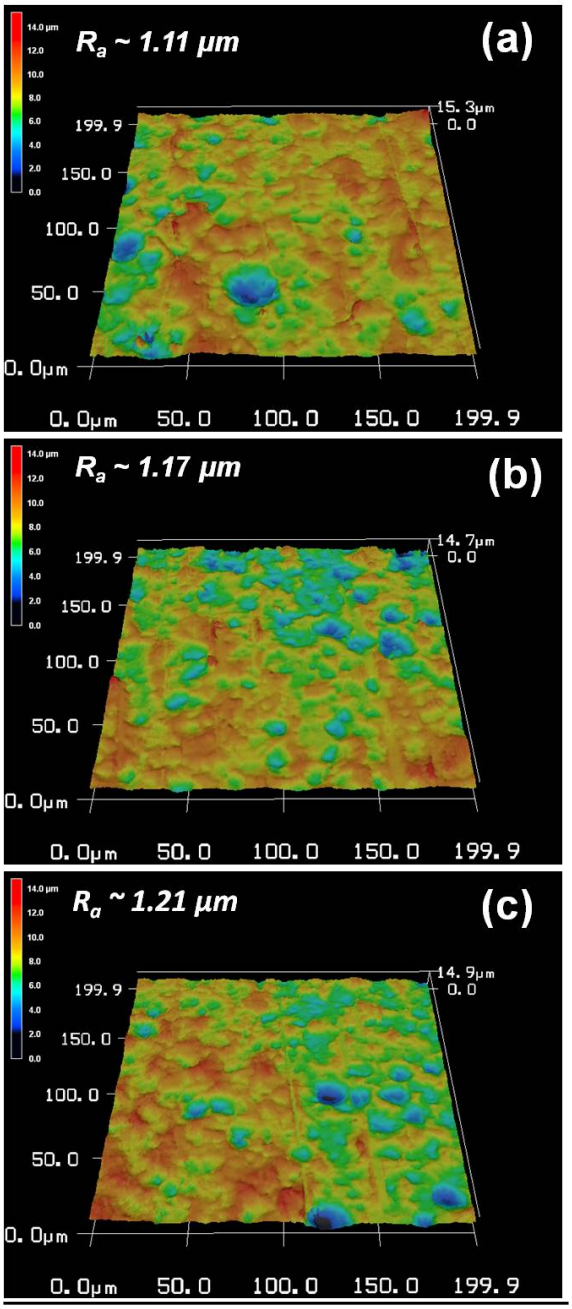

Figure S4. Laser microscope images captured from different position of the superhydrophobic M-430-SS/8h surface after sandpaper abrasion test and their respective surface roughness values.

S5. FE-SEM and laser microscope images of the superhydrophobic M-430-SS/8hr surface after adhesive tape peeling test

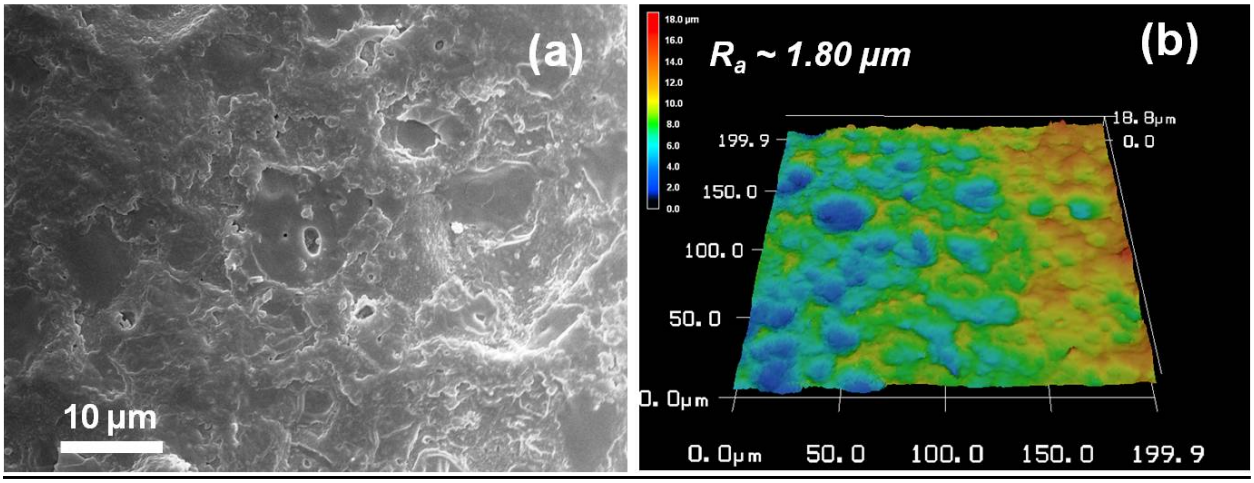

Figure S5. FE-SEM and laser microscope images of the superhydrophobic M-430-SS/8h surface after adhesive tape peeling test.

S6. Wetting stability of the superhydrophobic M-430-SS/8h surface against UV irradiation

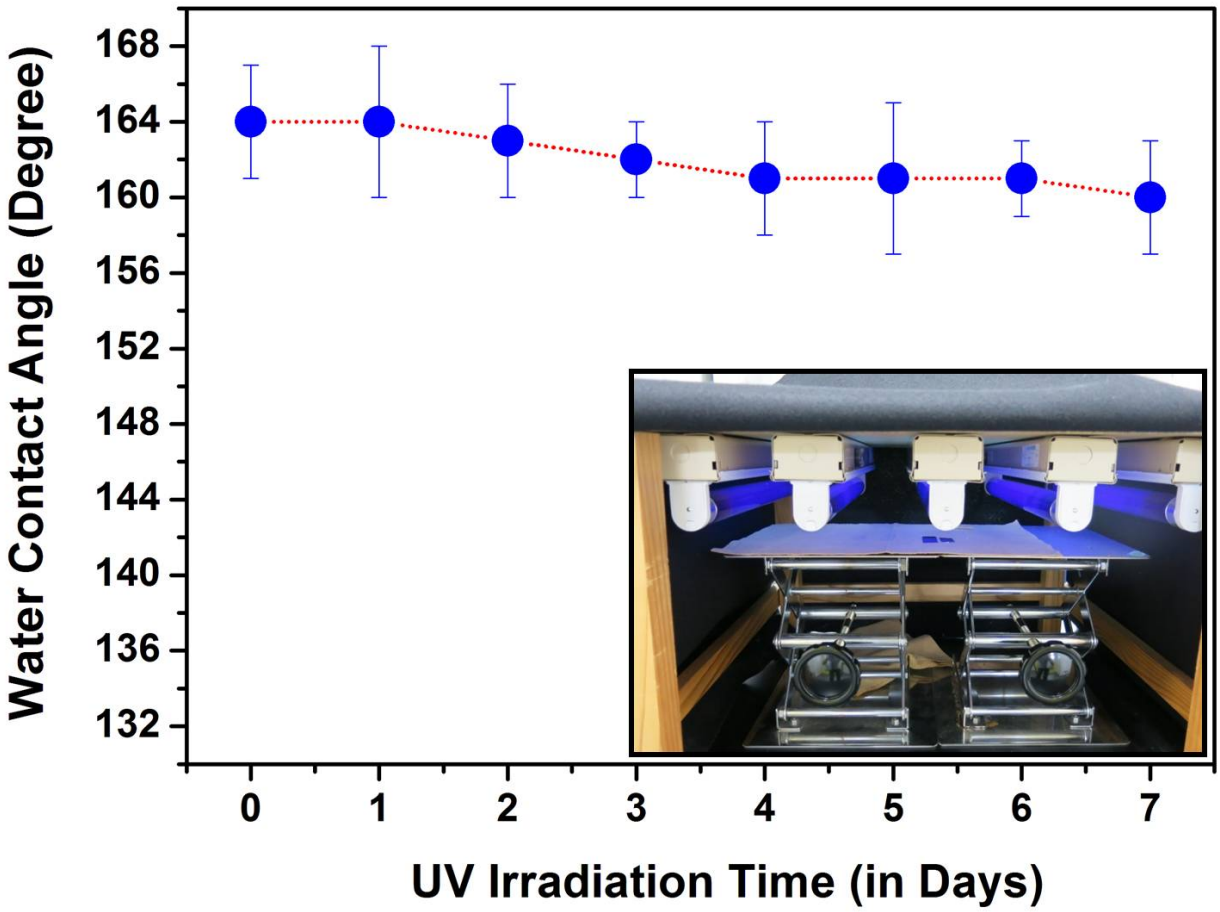

Figure S6. Wetting stability of the superhydrophobic M-430-SS/8h surface against UV irradiation.