

## Supporting Information

# **Transparent superhydrophilic and superhydrophobic nanoparticle textured coatings: Comparative study of anti-soiling performance**

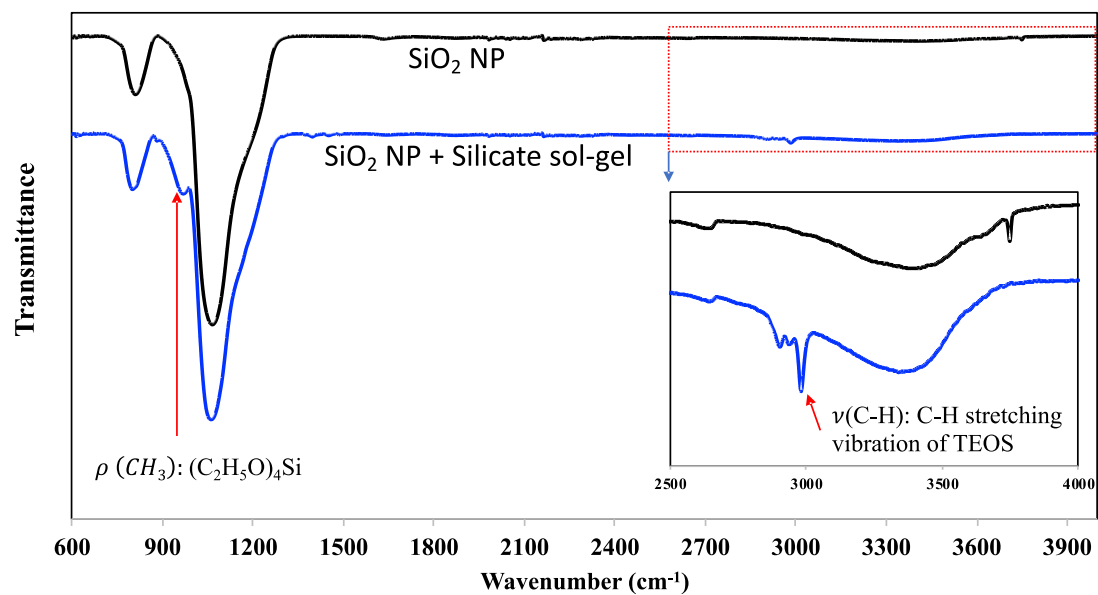
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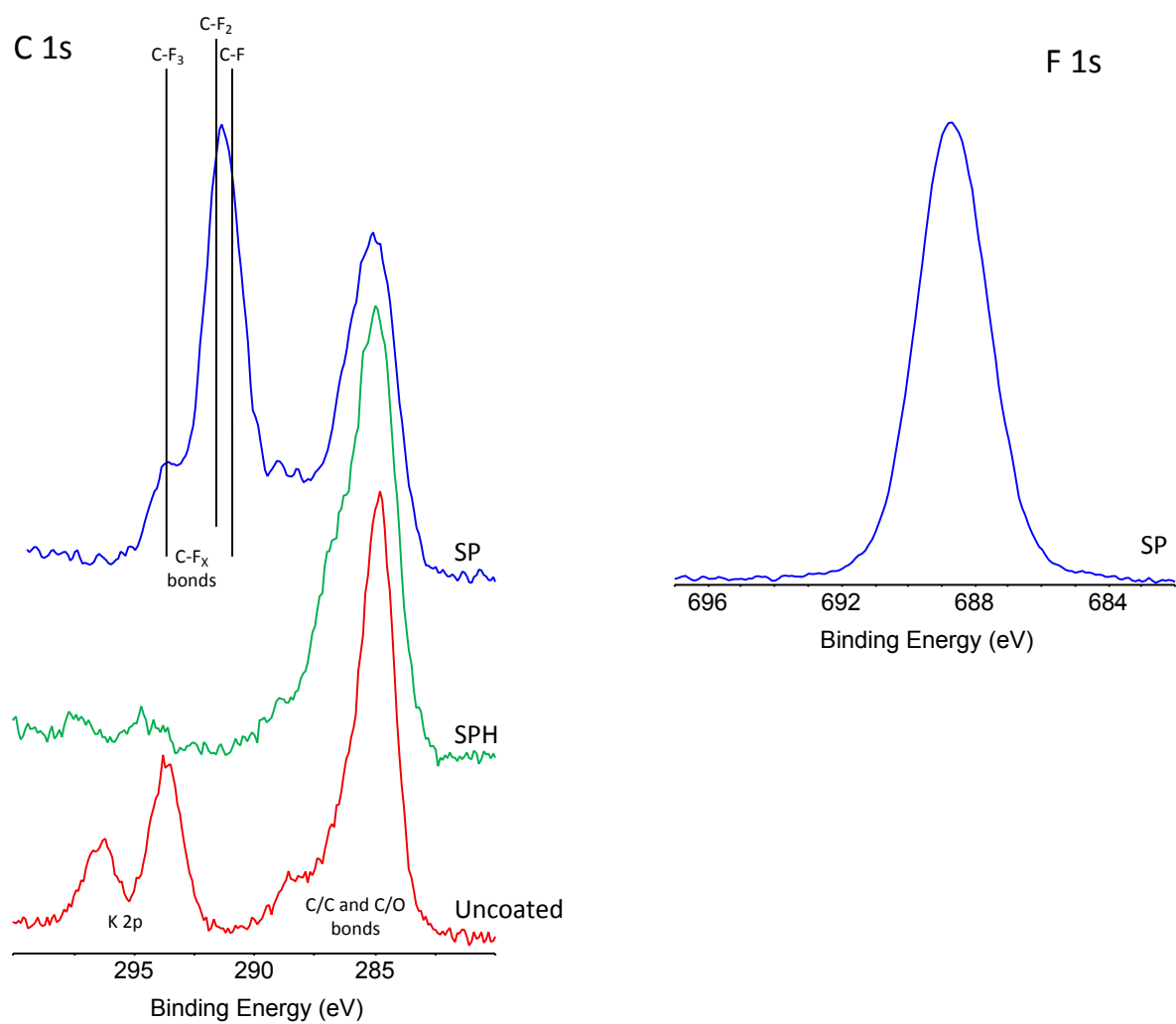
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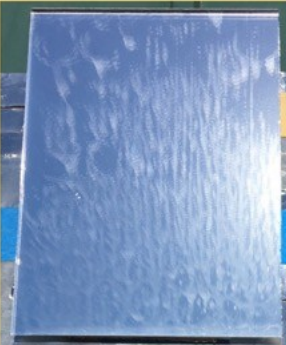

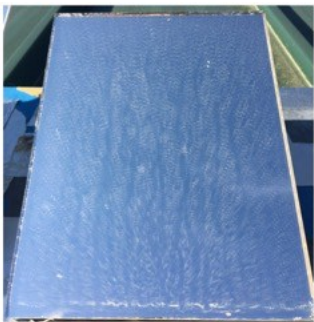
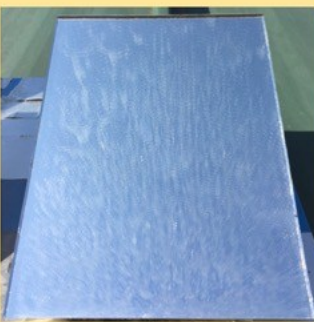






**Figure S1** FTIR spectra of mixture of SiO<sub>2</sub> NP and silicate sol-gel binder for the nanoparticle-texture coated solar mirrors.

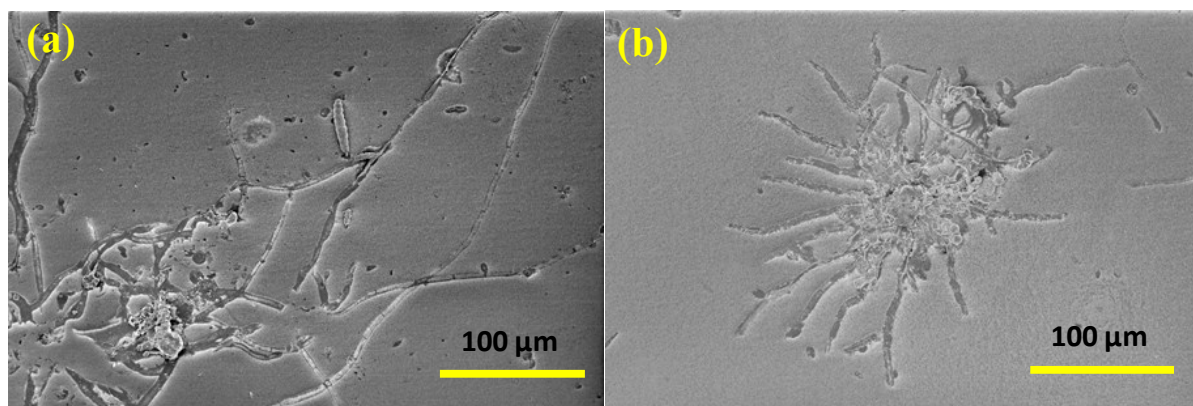


**Figure S2** XPS spectra of SP-coating, SPH-coating and uncoated mirrors

	Uncoated	SP	SPH
(1) 17/12/04 (5days)			
(2) 17/12/05 (6days)			
(3) 18/02/14 (77 days)			
(4) 18/04/26 (144 days)			

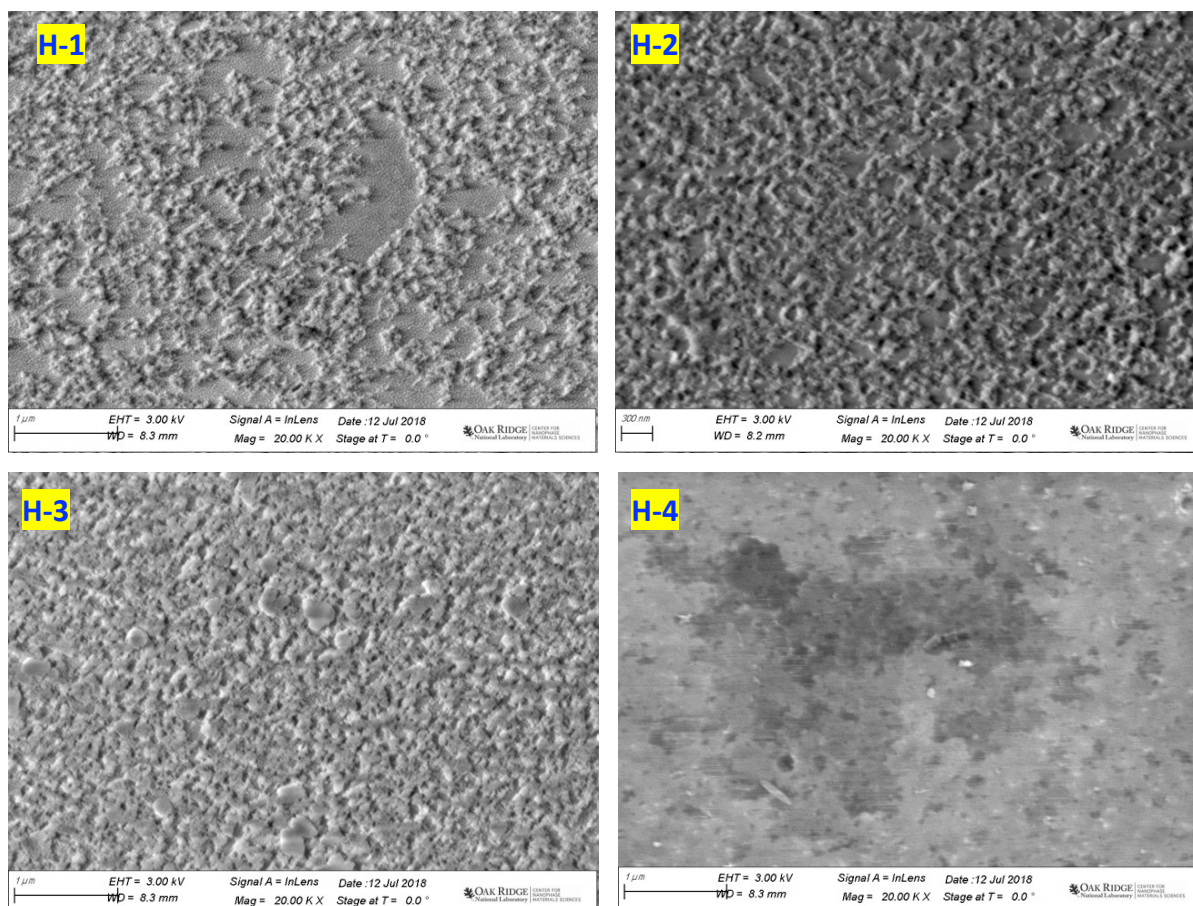
	Uncoated	SP	SPH
(5) 18/04/27 (145days)			
(6) 18/05/13 (162days)			
(7) 18/06/13 (196 days)			

**Figure S3** Observations of mirror surfaces over the field test period in Oak Ridge, Tennessee, USA.



**Figure S4** SEM images of organic dust particles on the SP (a) and SPH (b) mirrors.





**Figure S5** SEM images of hydrophilic mirrors after 234-days weathering.