



Figure S1. Size distribution of TiO₂ NPs by a particle size analyzer (Microtrac, Wave II) in deionized water.

Table S1. Wetting property of S1-3 and S2-3 after repeated rinsing by water or oil, chemical stability test in acid and base, abrasion with original cotton fabric or sand paper.

Sample Name		Wetting Property					
		Rinsing Test		Immersing Test		Abrasion Test	
		Water ₆₀	Oil ₆₀	pH=1	pH=13	Fabric ₃₀₀	Sand paper ₃₀
S1-3	OCA (°)	158.5	159.5	157.5	158	154.5	149
	OSA (°)	7.5	6	8.5	7.5	10	13.5
S2-3	WCA (°)	156.5	155	152.5	153	149	147
	WSA (°)	8	9.5	10	9	13	16.5