

Supporting information “**Bioinspired ribbed hair arrays with robust superhydrophobicity fabricated by micro/nanosphere lithography and plasma etching**”

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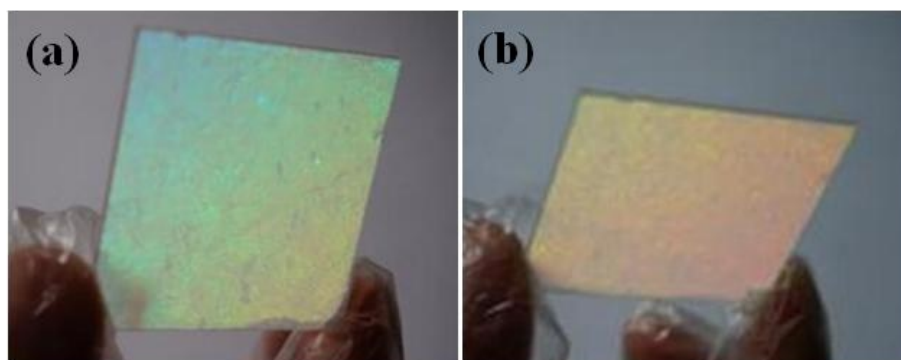


Figure S1. Photos of the iridescence which was clearly observed by naked eyes from the PMMA plate covered with hierarchical hair arrays under different viewed angles.

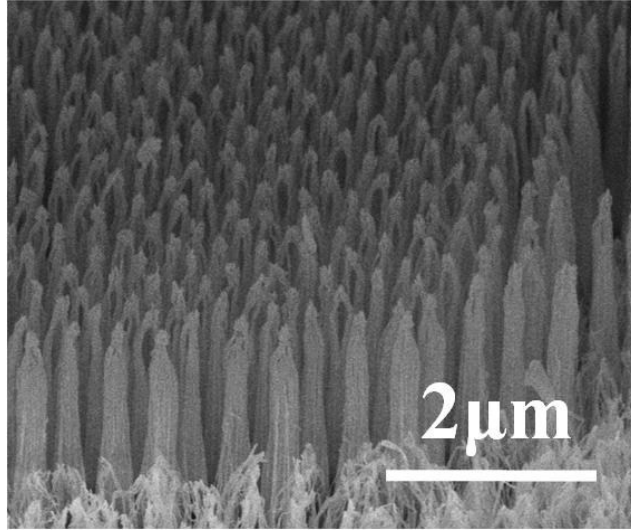


Figure S2. SEM image of the hierarchical hair arrays on PMMA plate after O₂ plasma reactive ion etching with the etching time of 400 s.

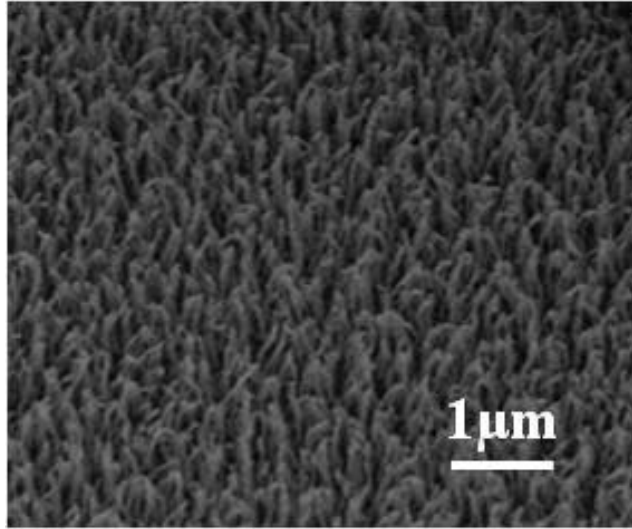


Figure S3. SEM image of the nanotexture on PMMA plate after O₂ plasma reactive ion etching without PS sphere as a mask.

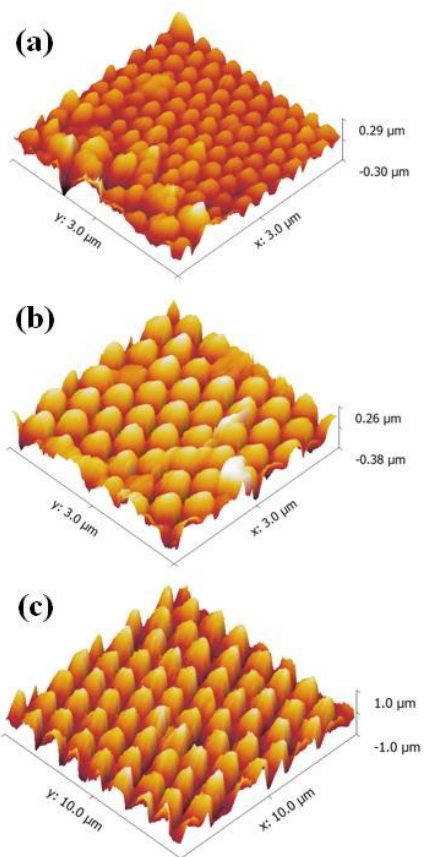


Figure S4. AFM images of the hierarchical hair arrays fabricated using different diameters of PS spheres as masks: (a) 270nm, (b) 420nm, (c) 1.2 μm .

Table S1. Summary and comparison of the features of aquatic devices in term of materials, volume, weight and loading capacity.

Materials	Volume (cm ³)	Weight (g)	Load capacity (g)	References
Nickel foam	$4 \times 3.5 \times 0.3$	6.0	4.0	[44]
Cotton fabrics	8.0	—	4.2	[45]
Paper	$3 \times 3 \times 0.007$	0.072	4.8	[46]
PDMS sheet	$\Phi 4 \times 0.073$	0.94	5.58	[47]
PMMA plate	$4 \times 4 \times 0.1$	1.66	7.65	