

Supplementary

Bioinspired hierarchical colloidal crystals paper with Janus wettability for Oil/Water separation and heavy metal ion removal

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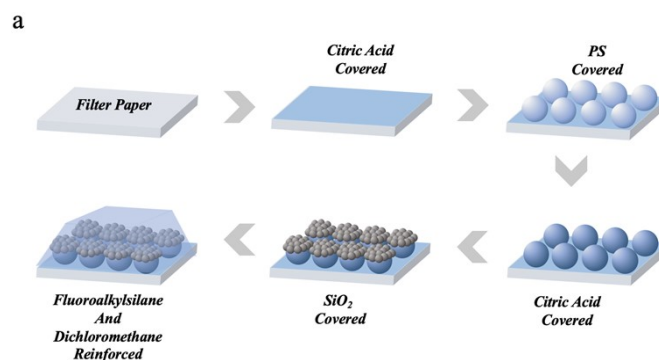


Figure S1. Schematic diagram of hierarchical structure preparation.

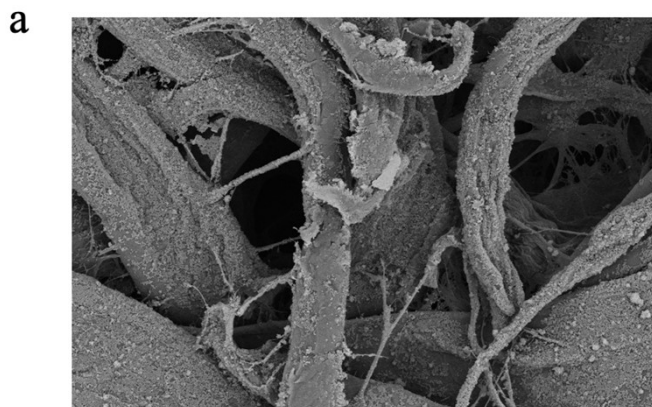


Figure S2. Image of filter paper assembled with graded colloidal crystals on the surface.

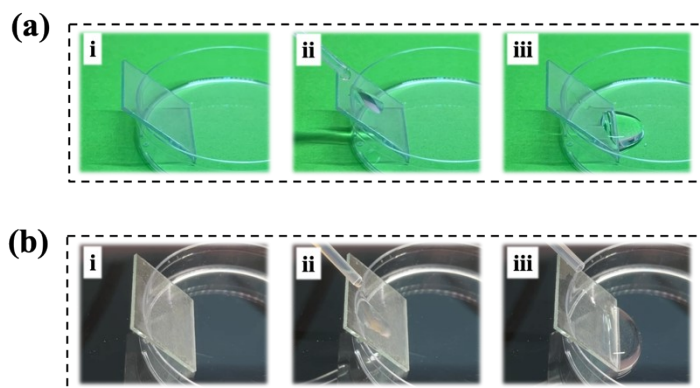


Figure S3. Experimental photographs of the effect of citric acid on substrate characterization with and without citric acid. (a) The SiO₂ and PS particles were not washed out when water was added dropwise to the slides with citric acid characterization; (b) the SiO₂ and PS particles were washed out when water was added dropwise to the slides without citric acid characterization.

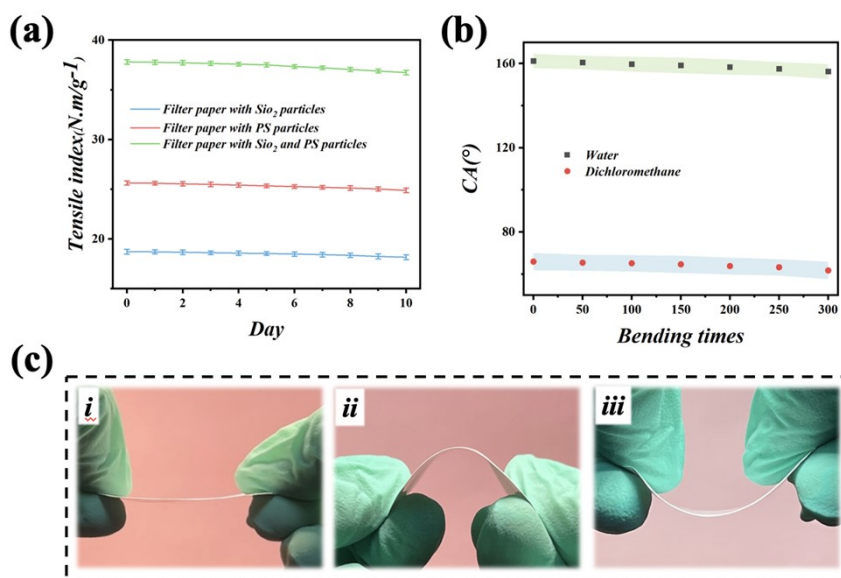


Figure S4. (a) Comparison of tensile index of filter paper with only SiO₂ particles, filter paper with only PS particles and filter paper with hierarchical structure. (b) Development of superhydrophobic filter paper regarding CA of water and

dichloromethane after experiencing different number of bends. (c) Photograph of the bending experiment.



Figure S5. Photo of superhydrophobic filter paper placed for 300 days.
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