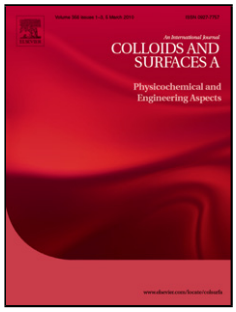

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Copper-based Superhydrophobic Materials with Long-term Durability, Stability, Regenerability, and Self-cleaning Property

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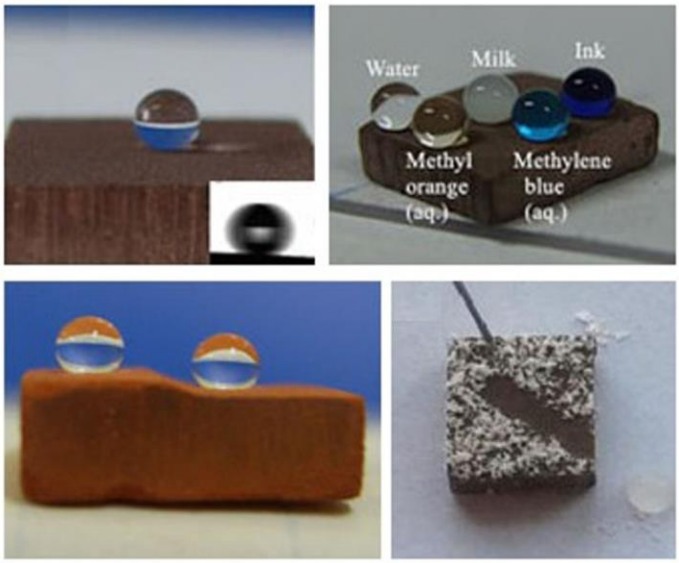
Graphical Abstract



The copper-based materials have outstanding superhydrophobicity and excellent self-cleaning property. The strong repellence has universality and long-term durability/stability. Moreover, the superhydrophobicity can be regenerated once destroyed by abrasion/scratch or fouling.

Research Highlights

- A simple and environment-friendly method for fabricating copper-based superhydrophobic materials is developed.
- The copper-based superhydrophobic materials have long-term durability and stability.
- The superhydrophobicity can be regenerated once destroyed.
- The superhydrophobic copper blocks have excellent self-cleaning property.