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Supporting Information for Manuscript Entitled

Spherical Micelle-Driven Deposition of High-Speed Impacting Water Droplets on Superhydrophobic Surfaces

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Supplementary Figures

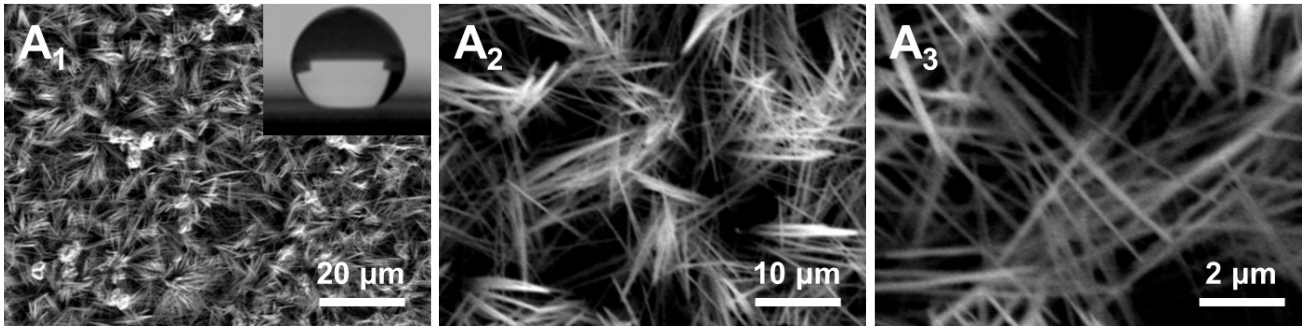

Fig. S1 Environmental scanning electron microscope (ESEM) images of the microscopic structures of the copper superhydrophobic surface. Insert: water contact angle is 156.9 ± 2.6°, ensuring the superhydrophobicity of the surface.

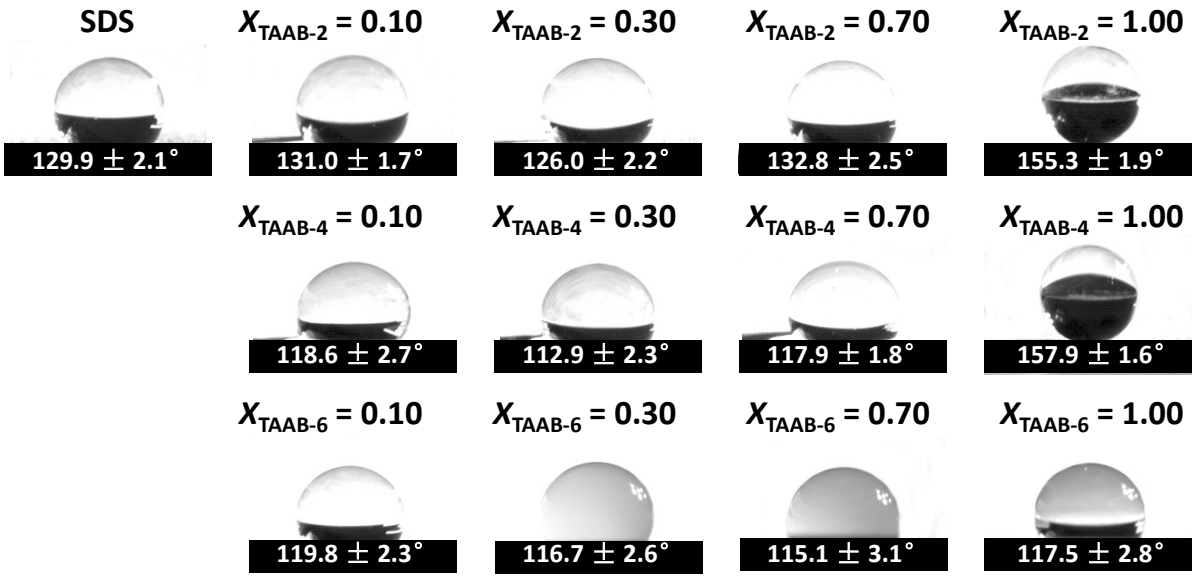

Fig. S2 Contact angle of 25.0 mM TAAB-n/SDS droplets on a superhydrophobic surface.

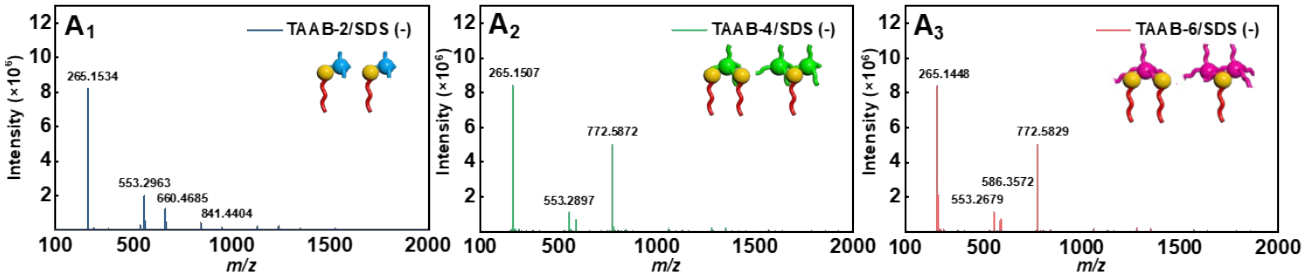

Fig. S3 ESI mass spectra of 25.0 mM (A_1) TAAB-2/SDS, (A_2) TAAB-4/SDS and (A_3) TAAB-6/SDS at X_{TAAB-n} = 0.30 in negative ion mode.

Captions for Supplementary Movies

Supplementary Movie S1. Videos of the impacting behavior of 25.0 mM TAAB-n/SDS (n = 2, 4, 6) water droplets at the different molar ratios (X_{TAAB-n} = 0, 0.1, 0.3, 0.7. 1.0) on a superhydrophobic surface (the impacting velocity is 2.42 m·s^{-1}).

Supplementary Movie S2. Videos of 25.0 mM TAAB-4/SDS droplets (X_{TAAB-4} = 0.3) impacting on superhydrophobic surface from the different heights (40, 20 and 10 cm), corresponding to the velocity of 2.80, 1.98 and 1.40 m·s^{-1}, respectively.