Supporting Information

Stood-up drop to determine receding contact angles

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1. Stood-up drop (SUD) for a hydrophobic surface

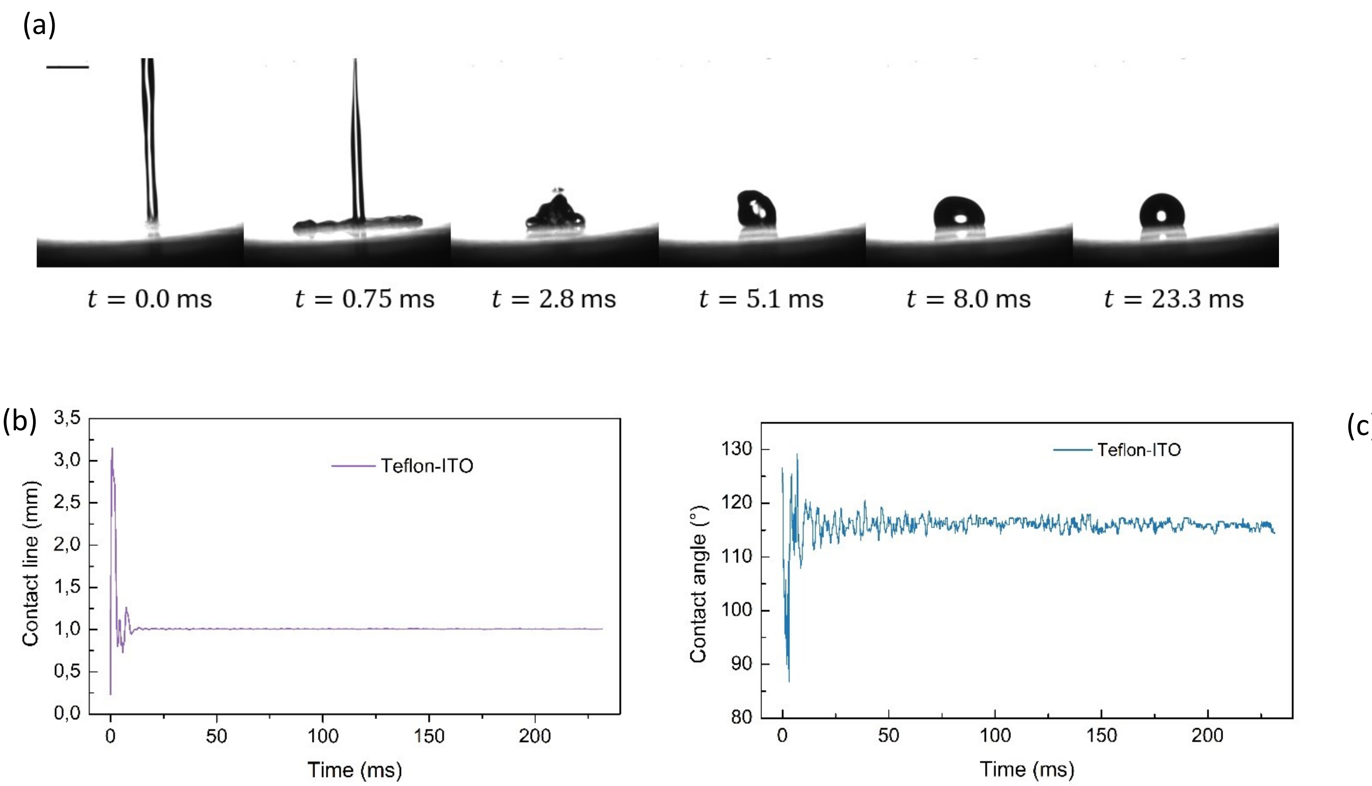


Fig. S1. (a) Experimental snapshots of a liquid jet impacting a hydrophobic Teflon-ITO surface. (b) Contact line diameter over time for the case (a). (c) Contact angle as a function of time. Oscillations are more pronounced in comparison to a hydrophilic surface. The droplet can even slide over the surface. Pressure: 350 mbar. Scale bar represents 1 mm. See also Video 3.

2. SUD angle as a function of pressure

The SUD angle is independent of the applied liquid jet pressure. Of course, this is only possible when the pressure and volume of the liquid jet are sufficiently high to allow a dominant and clear receding motion of the contact line prior the formation of the SUD drop.

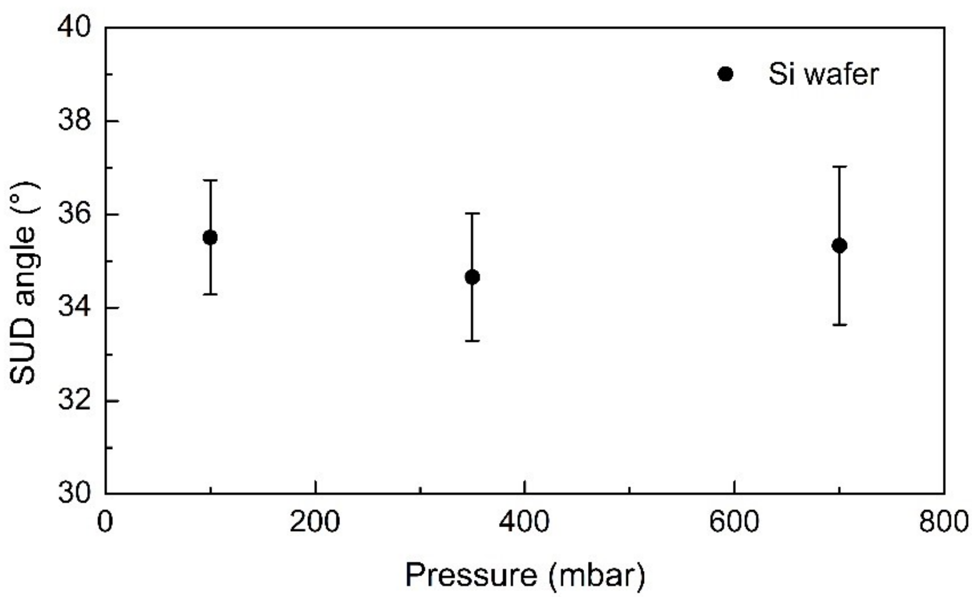
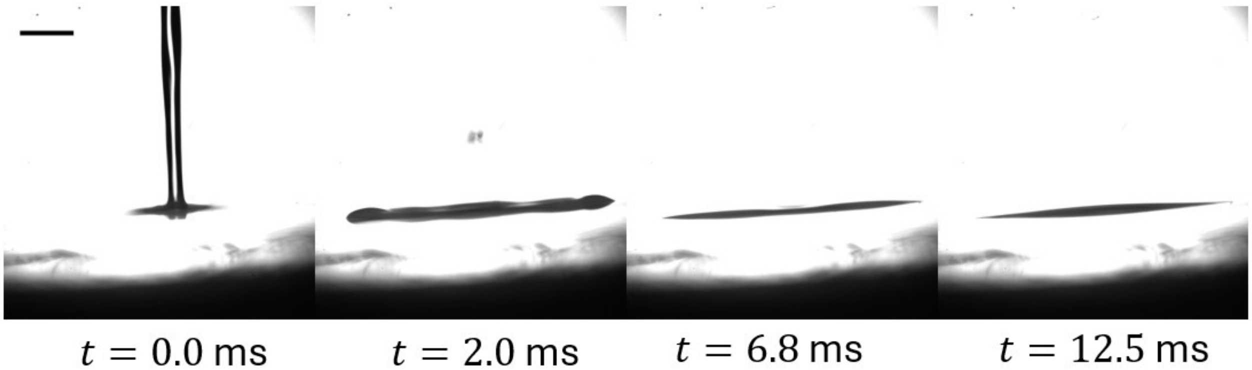


Fig. S2. SUD angle as a function of the pressure of the liquid jet impacting a Si wafer surface. Sud angle remains unaltered when the pressure is changed.

3. SUD for a hydrophilic bare glass slide

(a)



(b)

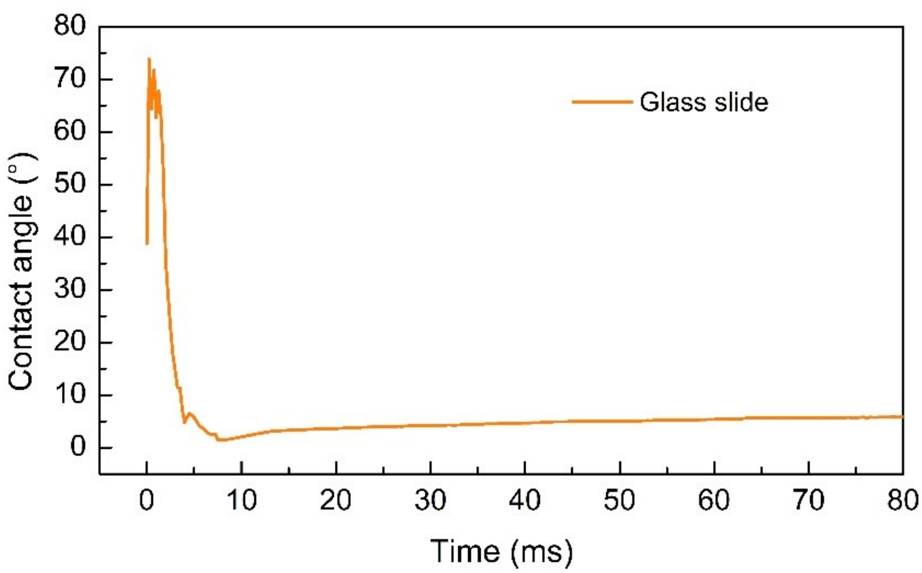


Fig. S3. (a) Experimental snapshots of a liquid jet impacting a bare glass slide. (b) Contact angle as a function of time for a Glass slide. SUD angle value is 6°. Scale bar represents 1 mm. See also Video 4.

4. SUD for a superhydrophobic surface

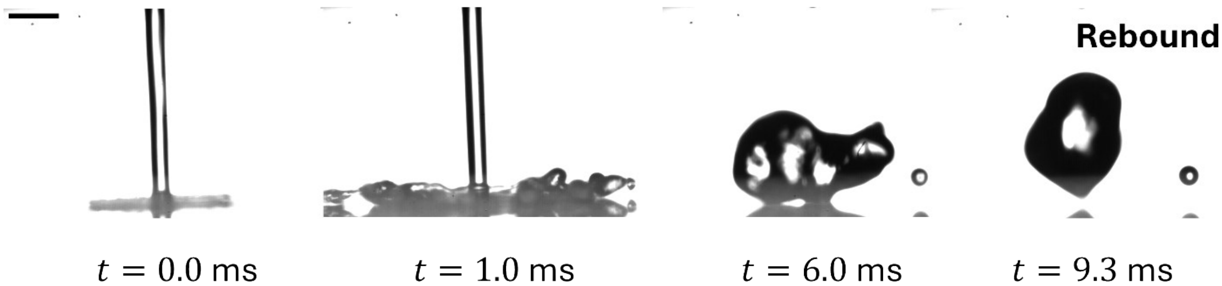


Fig. S4. Liquid jet of water impacting a superhydrophobic surface made of silicone nanofilaments. The liquid experience breakup upon impact and pronounced oscillations during the receding phase until it completely rebounds from the surface. Scale bar represents 1mm. See also Video 5.

Supplemental Videos

Video 1. Liquid jet impacting a silica surface. Dosing pressure: 350 mbar, jetting time 5 ms

Video 2. Bottom view of a liquid jet impacting a PMMA surface. Dosing pressure: 350 mbar, jetting time: 1 ms.

Video 3. Liquid jet impacting a hydrophobic Teflon surface. Dosing pressure: 350 mbar, jetting time 1 ms

Video 4. Liquid jet impacting a Glass surface. Dosing pressure: 350 mbar, jetting time 1 ms.

Video 5. Liquid jet impacting a superhydrophobic surface. Dosing pressure: 350 mbar, jetting time 1 ms