Abstract Submitted
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Kicking droplets MARTIN COUX, PIERRE CHANTELOT, LUCIE DOMINO, ANTONIN EDDI, PMMH, ESPCI, CNRS, CHRISTOPHE CLANET, LadHyx, Ecole Polytechnique, DAVID QUERE, PMMH, ESPCI, CNRS — Vibrating droplets deposited on hydrophobic substrates has lead to interesting phenomena : it has been shown to modify widely the shape of droplets, to allow the motion of a pinned contact line and to self propulsion on flat and textured surfaces. The sollicitations leading to these behaviors are periodical, and of small amplitude. Here we study water droplets laid on a non-wetting substrate undergoing a vertical burst of order 5 to 10 ms and of maximal speed of the order of 1 m/s. A part of the droplet takes off while the rest of it remains attached to the substrate, leading to beautiful and unusual shapes.

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