

Abstract Submitted
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Superhydrophobic immersion MARTIN COUX, ADRIEN MATHIS, CHRISTOPHE CLANET, DAVID QUERE, PMMH, ESPCI ; Ladhyx, Ecole Polytechnique — A superhydrophobic object is an object on which water doesn't spread. We can think conversely, such an object should be covered by air when immersed in water. The film of air that is formed in this case is visible at the naked eye owing to its brightness. Natural questions that arise from the observation of this phenomenon are how much air stays trapped between the liquid and the solid, *ie* what is the thickness of the film, and how this quantity can be modified. In this study, we describe an experimental setup that allows us to easily control the velocity of immersion of an object into a liquid bath and to access the volume of dragged air, from which we can deduce the thickness of the air film.

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