

Movie Captions

- Movie 1 Quasi-static growth and dynamic detachment of an air bubble at constant flow rate $\bar{Q} = 9.5$ ml/min, injected from a submerged orifice of radius $\bar{a} = 0.5$ mm placed on a superhydrophobic coating of radius $\bar{R}_s = 4.80$ mm (case 2, mode A). The theoretical bubble profiles are represented in white on top of the experimental images. The video was recorded at 500 fps, and is displayed at 10 fps. The scale bar represents 5 mm.

- Movie 2 Quasi-static growth and dynamic detachment of an air bubble at constant flow rate $\bar{Q} = 10.5$ ml/min, injected from a submerged orifice of radius $\bar{a} = 0.5$ mm placed on a superhydrophobic coating of radius $\bar{R}_s = 8.12$ mm (case 5, mode A). The theoretical bubble profiles are represented in white on top of the experimental images. The video was recorded at 500 fps, and is displayed at 10 fps. The scale bar represents 5 mm.

- Movie 3 Quasi-static growth and dynamic detachment of an air bubble at constant flow rate $\bar{Q} = 3.1$ ml/min, injected from a submerged orifice of radius $\bar{a} = 0.5$ mm placed on a superhydrophobic coating of radius $\bar{R}_s = 9.82$ mm (case 9, mode B). The theoretical bubble profiles are represented in white on top of the experimental images. The inset shows both the experimental (symbol) and theoretical (line) evolution of the bubble height as a function of volume. The video was recorded at 250 fps, and is displayed at 30 fps. The scale bar represents 5 mm.

- Movie 4

Quasi-static growth and dynamic detachment of several air bubbles at constant flow rate, injected from a submerged orifice of radius $\bar{a} = 0.5$ mm placed on a very large superhydrophobic coating of radius $\bar{R}_s = 32.5$ mm (mode B). The video was recorded at 240 fps, and is displayed at 30 fps.