Philippe Marmottant

List of Publications by Year
in descending order

39	3,307	279487 23	315357 38
papers	citations	h-index	g-index

39	39	39	3166
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controlled vesicle deformation and lysis by single oscillating bubbles. Nature, 2003, 423, 153-156.	13.7	731
2	A model for large amplitude oscillations of coated bubbles accounting for buckling and rupture. Journal of the Acoustical Society of America, 2005, 118, 3499-3505.	0.5	587
3	Visual quantification of embolism reveals leaf vulnerability to hydraulic failure. New Phytologist, 2016, 209, 1403-1409.	3.5	213
4	Role of the Channel Geometry on the Bubble Pinch-Off in Flow-Focusing Devices. Physical Review Letters, 2008, 100, 034504.	2.9	196
5	A bubble-driven microfluidic transport element for bioengineering. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9523-9527.	3.3	173
6	Revealing catastrophic failure of leaf networks under stress. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4865-4869.	3.3	146
7	Bubble Dynamics in Soft and Biological Matter. Annual Review of Fluid Mechanics, 2019, 51, 331-355.	10.8	117
8	Ultrasound-induced microbubble coalescence. Ultrasound in Medicine and Biology, 2004, 30, 1337-1344.	0.7	99
9	Ultra-fast underwater suction traps. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2909-2914.	1.2	95
10	Microfluidics with foams. Soft Matter, 2009, 5, 3385.	1.2	83
11	High-speed imaging of an ultrasound-driven bubble in contact with a wall: â€œNarcissusâ€•effect and resolved acoustic streaming. Experiments in Fluids, 2006, 41, 147-153.	1.1	81
12	Birth and Growth of Cavitation Bubbles within Water under Tension Confined in a Simple Synthetic Tree. Physical Review Letters, 2012, 108, 184502.	2.9	80
13	Propulsion of Bubble-Based Acoustic Microswimmers. Physical Review Applied, 2015, 4, .	1.5	74
14	Biodegradable polymeric microcapsules for selective ultrasound-triggered drug release. Soft Matter, 2011, 7, 5417.	1.2	67
15	Buckling resistance of solid shell bubbles under ultrasound. Journal of the Acoustical Society of America, 2011, 129, 1231-1239.	0.5	64
16	Microfluidic Crystals: Dynamic Interplay between Rearrangement Waves and Flow. Physical Review Letters, 2009, 102, 084501.	2.9	62
17	The fast dynamics of cavitation bubbles within water confined in elastic solids. Soft Matter, 2014, 10, 1455.	1.2	58
18	Deformation and rupture of lipid vesicles in the strong shear flow generated by ultrasound-driven microbubbles. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 1781-1800.	1.0	49

#	Article	IF	Citations
19	Periodic Microfluidic Bubbling Oscillator: Insight into the Stability of Two-Phase Microflows. Physical Review Letters, 2006, 97, 154501.	2.9	46
20	Acoustically Bound Microfluidic Bubble Crystals. Physical Review Letters, 2011, 106, 134501.	2.9	43
21	On the statics and dynamics of fully confined bubbles. Journal of Fluid Mechanics, 2017, 827, 194-224.	1.4	42
22	Bubble-based acoustic micropropulsors: active surfaces and mixers. Lab on A Chip, 2017, 17, 1515-1528.	3.1	31
23	Spontaneous Firings of Carnivorous Aquatic Utricularia Traps: Temporal Patterns and Mechanical Oscillations. PLoS ONE, 2011, 6, e20205.	1.1	29
24	Mechanical model of the ultrafast underwater trap ofUtricularia. Physical Review E, 2011, 83, 021911.	0.8	20
25	Model for the growth and the oscillation of a cavitation bubble in a spherical liquid-filled cavity enclosed in an elastic medium. Physical Review E, 2018, 97, 013108.	0.8	19
26	Acoustic pulsation of a microbubble confined between elastic walls. Physics of Fluids, 2016, 28, 032004.	1.6	15
27	Natural oscillations of a gas bubble in a liquid-filled cavity located in a viscoelastic medium. Journal of Sound and Vibration, 2018, 420, 61-72.	2.1	14
28	Carnivorous Utricularia: The buckling scenario. Plant Signaling and Behavior, 2011, 6, 1752-1754.	1.2	13
29	A dynamical model for the Utricularia trap. Journal of the Royal Society Interface, 2012, 9, 3129-3139.	1.5	11
30	Nonlinear dynamics of two coupled bubbles oscillating inside a liquid-filled cavity surrounded by an elastic medium. Physical Review E, 2019, 99, 053106.	0.8	10
31	Drying of channels by evaporation through a permeable medium. Journal of the Royal Society Interface, 2019, 16, 20180690.	1.5	9
32	Radiation dynamics of a cavitation bubble in a liquid-filled cavity surrounded by an elastic solid. Physical Review E, 2017, 95, 053104.	0.8	8
33	Multi-directional bubble generated streaming flows. Ultrasonics, 2020, 102, 106054.	2.1	6
34	Cavitation in a liquid-filled cavity surrounded by an elastic medium: Intercoupling of cavitation events in neighboring cavities. Physical Review E, 2018, 98, 013108.	0.8	4
35	Trapping and exclusion zones in complex streaming patterns around a large assembly of microfluidic bubbles under ultrasound. Physical Review Fluids, 2018, 3, .	1.0	4
36	Acoustic streaming produced by a cylindrical bubble undergoing volume and translational oscillations in a microfluidic channel. Physical Review E, 2016, 94, 033109.	0.8	3

#	Article	IF	Citations
37	Drying by pervaporation in elementary channel networks. Journal of Fluid Mechanics, 2021, 906, .	1.4	3
38	Pervaporation-induced drying in networks of channels of variable width. Microfluidics and Nanofluidics, 2021, 25, 1.	1.0	2
39	Physique des mouvements rapides chez les plantes. , 2014, , 4-8.	0.1	0