Michael Baudoin

List of Publications by Year
in descending order

40 papers	1,140 citations	430754 18 h-index	377752 34 g-index
45 all docs	45 docs citations	45 times ranked	981 citing authors

#	Article	IF	Citations
1	Unstationary dynamics of drops subjected to MHz-surface acoustic waves modulated at low frequency. Experiments in Fluids, 2022, 63, 1.	1.1	5
2	Everlasting bubbles and liquid films resisting drainage, evaporation, and nuclei-induced bursting. Physical Review Fluids, 2022, 7, .	1.0	17
3	Acoustic Radiation Force on Small Spheres Due to Transient Acoustic Fields. Physical Review Applied, 2021, 15, .	1.5	21
4	Equivalence between angular spectrum-based and multipole expansion-based formulas of the acoustic radiation force and torque. Journal of the Acoustical Society of America, 2021, 149, 3469-3482.	0.5	20
5	Three-Dimensional Trapping and Dynamic Axial Manipulation with Frequency-Tuned Spiraling Acoustical Tweezers: A Theoretical Study. Physical Review Applied, 2021, 16, .	1.5	11
6	Acoustic Tweezers for Particle and Fluid Micromanipulation. Annual Review of Fluid Mechanics, 2020, 52, 205-234.	10.8	102
7	Acoustic radiation torque on a particle in a fluid: An angular spectrum based compact expression. Journal of the Acoustical Society of America, 2020, 148, 3131-3140.	0.5	17
8	Spatially selective manipulation of cells with single-beam acoustical tweezers. Nature Communications, 2020, 11, 4244.	5.8	123
9	Three-Dimensional Trapping and Assembly of Small Particles with Synchronized Spherical Acoustical Vortices. Physical Review Applied, 2020, 14, .	1.5	12
10	Motion of Long Levitating Drops in Tubes in an Anti-Bretherton Configuration. Physical Review Letters, 2020, 125, 194501.	2.9	2
11	Acoustic Sensing of Forces Driving Fast Capillary Flows. Physical Review Letters, 2020, 124, 084502.	2.9	7
12	Particle Assembly with Synchronized Acoustic Tweezers. Physical Review Applied, 2019, 12, .	1.5	24
13	Folding a focalized acoustical vortex on a flat holographic transducer: Miniaturized selective acoustical tweezers. Science Advances, 2019, 5, eaav1967.	4.7	135
14	Pressure-driven dynamics of liquid plugs in rectangular microchannels: Influence of the transition between quasi-static and dynamic film deposition regimes. International Journal of Multiphase Flow, 2019, 113, 343-357.	1.6	4
15	Dynamics of a liquid plug in a capillary tube under cyclic forcing: memory effects and airway reopening. Journal of Fluid Mechanics, 2018, 838, 165-191.	1.4	17
16	Selective Manipulation of Microscopic Particles with Precursor Swirling Rayleigh Waves. Physical Review Applied, 2017, 7, .	1.5	76
17	Nonspherical armoured bubble vibration. Soft Matter, 2017, 13, 3879-3884.	1.2	5
18	On the influence of viscosity and caustics on acoustic streaming in sessile droplets: anÂexperimental and a numerical study with aÂcost-effective method. Journal of Fluid Mechanics, 2017, 821, 384-420.	1.4	51

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19	Dynamics of liquid plugs in prewetted capillary tubes: from acceleration and rupture to deceleration and airway obstruction. Soft Matter, 2016, 12, 8710-8717.	1.2	14
20	Dynamics of sessile and pendant drops excited by surface acoustic waves: Gravity effects and correlation between oscillatory and translational motions. Physical Review E, 2016, 93, 053106.	0.8	18
21	Inverse Saffman-Taylor Experiments with Particles Lead to Capillarity Driven Fingering Instabilities. Physical Review Letters, 2016, 117, 034501.	2.9	17
22	Increased resistance to detachment of adherent microspheres and Bacillus spores subjected to a drying step. Colloids and Surfaces B: Biointerfaces, 2016, 143, 293-300.	2.5	8
23	SAW Synthesis With IDTs Array and the Inverse Filter: Toward a Versatile SAW Toolbox for Microfluidics and Biological Applications. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1601-1607.	1.7	24
24	Anisotropic Swirling Surface Acoustic Waves from Inverse Filtering for On-Chip Generation of Acoustic Vortices. Physical Review Applied, 2015, 4, .	1.5	61
25	Taming the degeneration of Bessel beams at an anisotropic-isotropic interface: Toward three-dimensional control of confined vortical waves. Physical Review E, 2015, 92, 063201.	0.8	21
26	Cyclones and attractive streaming generated by acoustical vortices. Physical Review E, 2014, 90, 013008.	0.8	25
27	Capillary tube wetting induced by particles: towards armoured bubbles tailoring. Soft Matter, 2014, 10, 9403-9412.	1.2	16
28	Cell detachment and label-free cell sorting using modulated surface acoustic waves (SAWs) in droplet-based microfluidics. Lab on A Chip, 2014, 14, 3556.	3.1	35
29	Removal of living cells from biosensing surfaces in droplet-based microfluidics using surface acoustic waves. Proceedings of Meetings on Acoustics, 2013, , .	0.3	2
30	Airway reopening through catastrophic events in a hierarchical network. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 859-864.	3.3	28
31	Low power sessile droplets actuation via modulated surface acoustic waves. Applied Physics Letters, 2012, 100, 154102.	1.5	54
32	Scattering of ultrasonic shock waves in suspensions of silica nanoparticles. Journal of the Acoustical Society of America, 2011, 129, 1209-1220.	0.5	8
33	The airâ€“liquid flow in a microfluidic airway tree. Medical Engineering and Physics, 2011, 33, 849-856.	0.8	32
34	Sound, infrasound, and sonic boom absorption by atmospheric clouds. Journal of the Acoustical Society of America, 2011, 130, 1142-1153.	0.5	14
35	Droplet displacements and oscillations induced by ultrasonic surface acoustic waves: A quantitative study. Physical Review E, 2010, 81, 036315.	0.8	96
36	Microscopic Airway Reopening Through Cascades of Plugs Ruptures. , 2009, , .		0

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37	Acoustic shock wave propagation through solutions of nano-particles. AIP Conference Proceedings, 2008, , .	0.3	0
38	On the influence of spatial correlations on sound propagation in concentrated solutions of rigid particles. Journal of the Acoustical Society of America, 2008, 123, 4127-4139.	0.5	4
39	An extended coupled phase theory for the sound propagation in polydisperse concentrated suspensions of rigid particles. Journal of the Acoustical Society of America, 2007, 121, 3386.	0.5	13
40	Absorption of sonic boom by clouds. AIP Conference Proceedings, 2006, , .	0.3	1