Joshua B Bostwick

List of Publications by Year
in descending order

49 papers	947 citations	516710 16 h-index	477307 29 g-index
49 all docs	49 docs citations	49 times ranked	625 citing authors

#	Article	IF	Citations
1	Stability of Constrained Capillary Surfaces. Annual Review of Fluid Mechanics, 2015, 47, 539-568.	25.0	110
2	Capillary oscillations of a constrained liquid drop. Physics of Fluids, 2009, 21, .	4.0	88
3	Elastocapillary deformations on partially-wetting substrates: rival contact-line models. Soft Matter, 2014, 10, 7361.	2.7	77
4	Dynamics of sessile drops. Part 1. Inviscid theory. Journal of Fluid Mechanics, 2014, 760, 5-38.	3.4	69
5	Substrate constraint modifies the Rayleigh spectrum of vibrating sessile drops. Physical Review E, 2013, 88, 023015.	2.1	56
6	Dynamics of sessile drops. Part 2. Experiment. Journal of Fluid Mechanics, 2015, 768, 442-467.	3.4	51
7	Self-spreading of the wetting ridge during stick-slip on a viscoelastic surface. Soft Matter, 2017, 13, 8331-8336.	2.7	34
8	Stability of constrained cylindrical interfaces and the torus lift of Plateauâ€"Rayleigh. Journal of Fluid Mechanics, 2010, 647, 201-219.	3.4	28
9	Droplet motions fill a periodic table. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4849-4854.	7.1	27
10	Coupled oscillations of deformable spherical-cap droplets. Part 1. Inviscid motions. Journal of Fluid Mechanics, 2013, 714, 312-335.	3.4	24
11	Static rivulet instabilities: varicose and sinuousÂmodes. Journal of Fluid Mechanics, 2018, 837, 819-838.	3.4	23
12	Fluid Rheological Effects on the Flow of Polymer Solutions in a Contractionâ€"Expansion Microchannel. Micromachines, 2020, 11, 278.	2.9	23
13	Coupled oscillations of deformable spherical-cap droplets. Part 2. Viscous motions. Journal of Fluid Mechanics, 2013, 714, 336-360.	3.4	21
14	Capillary fracture of soft gels. Physical Review E, 2013, 88, 042410.	2.1	21
15	Extracting the surface tension of soft gels from elastocapillary wave behavior. Soft Matter, 2018, 14, 7347-7353.	2.7	21
16	Response of driven sessile drops with contact-line dissipation. Soft Matter, 2016, 12, 8919-8926.	2.7	16
17	A method for determining surface tension, viscosity, and elasticity of gels via ultrasonic levitation of gel drops. Journal of the Acoustical Society of America, 2020, 147, 2488-2498.	1.1	15
18	Surface wave pattern formation in a cylindrical container. Journal of Fluid Mechanics, 2021, 915, .	3.4	15

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19	Elastocapillary Transition in Gel Drop Oscillations. Physical Review Letters, 2019, 123, 188002.	7.8	13
20	Asymmetric instability in thin-film flow down a fiber. Physical Review Fluids, 2021, 6, .	2.5	13
21	Particle separation in xanthan gum solutions. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	12
22	The elastic Rayleigh drop. Soft Matter, 2019, 15, 9244-9252.	2.7	12
23	Acoustic analysis of ultrasonic assisted soldering for enhanced adhesion. Ultrasonics, 2020, 101, 106003.	3.9	11
24	Plateauâ€"Rayleigh instability in a soft viscoelastic material. Soft Matter, 2021, 17, 4170-4179.	2.7	11
25	On the role of meniscus geometry in capillary wave generation. Experiments in Fluids, 2021, 62, 1.	2.4	11
26	Flow of Non-Newtonian Fluids in a Single-Cavity Microchannel. Micromachines, 2021, 12, 836.	2.9	11
27	Spreading and bistability of droplets on differentially heated substrates. Journal of Fluid Mechanics, 2013, 725, 566-587.	3.4	10
28	Capillary fracture of ultrasoft gels: variability and delayed nucleation. Soft Matter, 2017, 13, 2962-2966.	2.7	10
29	Is contact-line mobility a material parameter?. Npj Microgravity, 2022, 8, 6.	3.7	10
30	A dynamic analysis of the Rayleighâ€"Taylor instability in soft solids. Extreme Mechanics Letters, 2020, 40, 100940.	4.1	9
31	Liquid-bridge shape stability by energy bounding. IMA Journal of Applied Mathematics, 2015, 80, 1759-1775.	1.6	8
32	Drop impact on solids: contact-angle hysteresis filters impact energy into modal vibrations. Journal of Fluid Mechanics, 2021, 923, .	3.4	7
33	Model of spontaneous droplet transport on a soft viscoelastic substrate with nonuniform thickness. Physical Review E, 2021, 104, 034611.	2.1	7
34	Oscillations of a soft viscoelastic drop. Npj Microgravity, 2021, 7, 42.	3.7	7
35	Faraday waves in soft elastic solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200129.	2.1	7
36	Elastic membranes in confinement. Journal of the Royal Society Interface, 2016, 13, 20160408.	3.4	6

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37	Development of an open-sourced automated ultrasonic-assisted soldering system. Journal of Manufacturing Processes, 2019, 47, 284-290.	5.9	6
38	Enhanced wettability in ultrasonic-assisted soldering to glass substrates. Journal of Manufacturing Processes, 2021, 64, 276-284.	5.9	6
39	Experimental observation of Faraday waves in soft gels. Physical Review E, 2020, 102, 060602.	2.1	6
40	Splashing on Soft Elastic Substrates. Langmuir, 2020, 36, 15010-15017.	3.5	5
41	Scaling analysis of the Plateauâ€"Rayleigh instability in thin film flow down a fiber. Experiments in Fluids, 2021, 62, 1.	2.4	5
42	Role of edge effects and fluid depth in azimuthal Faraday waves. Physical Review Fluids, 2022, 7, .	2.5	5
43	Resonant mode scanning to compute the spectrum of capillary surfaces with dynamic wetting effects. Journal of Engineering Mathematics, 2021, 129, 1.	1.2	4
44	Leidenfrost drop dynamics: Exciting dormant modes. Physical Review Fluids, 2019, 4, .	2.5	4
45	Viscoelastic effects in circular edge waves. Journal of Fluid Mechanics, 2021, 919, .	3.4	3
46	Failure modes and bonding strength of ultrasonically-soldered glass joints. Journal of Materials Processing Technology, 2022, 299, 117385.	6.3	3
47	Pressure modes of the oscillating sessile drop. Journal of Fluid Mechanics, 2022, 944, .	3.4	3
48	Geometry of polygonal hydraulic jumps and the role of hysteresis. Physical Review Fluids, 2020, 5, .	2.5	2
49	Correction: Plateauâ€"Rayleigh instability in a soft viscoelastic material. Soft Matter, 2021, 17, 3975-3975.	2.7	1