Joshua B Bostwick

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1231952/publications.pdf

Version: 2024-02-01

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	Failure modes and bonding strength of ultrasonically-soldered glass joints. Journal of Materials Processing Technology, 2022, 299, 117385.	6.3	3
2	Role of edge effects and fluid depth in azimuthal Faraday waves. Physical Review Fluids, 2022, 7, .	2.5	5
3	Is contact-line mobility a material parameter?. Npj Microgravity, 2022, 8, 6.	3.7	10
4	Pressure modes of the oscillating sessile drop. Journal of Fluid Mechanics, 2022, 944, .	3.4	3
5	Plateauâ€“Rayleigh instability in a soft viscoelastic material. Soft Matter, 2021, 17, 4170-4179.	2.7	11
6	Surface wave pattern formation in a cylindrical container. Journal of Fluid Mechanics, 2021, 915, .	3.4	15
7	Asymmetric instability in thin-film flow down a fiber. Physical Review Fluids, 2021, 6, .	2.5	13
8	On the role of meniscus geometry in capillary wave generation. Experiments in Fluids, 2021, 62, 1.	2.4	11
9	Enhanced wettability in ultrasonic-assisted soldering to glass substrates. Journal of Manufacturing Processes, 2021, 64, 276-284.	5.9	6
10	Viscoelastic effects in circular edge waves. Journal of Fluid Mechanics, 2021, 919, .	3.4	3
11	Scaling analysis of the Plateauâ€“Rayleigh instability in thin film flow down a fiber. Experiments in Fluids, 2021, 62, 1.	2.4	5
12	Resonant mode scanning to compute the spectrum of capillary surfaces with dynamic wetting effects. Journal of Engineering Mathematics, 2021, 129, 1.	1.2	4
13	Drop impact on solids: contact-angle hysteresis filters impact energy into modal vibrations. Journal of Fluid Mechanics, 2021, 923, .	3.4	7
14	Flow of Non-Newtonian Fluids in a Single-Cavity Microchannel. Micromachines, 2021, 12, 836.	2.9	11
15	Model of spontaneous droplet transport on a soft viscoelastic substrate with nonuniform thickness. Physical Review E, 2021, 104, 034611.	2.1	7
16	Correction: Plateauâ€“Rayleigh instability in a soft viscoelastic material. Soft Matter, 2021, 17, 3975-3975.	2.7	1
17	Oscillations of a soft viscoelastic drop. Npj Microgravity, 2021, 7, 42.	3.7	7
18	Acoustic analysis of ultrasonic assisted soldering for enhanced adhesion. Ultrasonics, 2020, 101, 106003.	3.9	11

#	Article	IF	Citations
19	Splashing on Soft Elastic Substrates. Langmuir, 2020, 36, 15010-15017.	3.5	5
20	A dynamic analysis of the Rayleighâ€“Taylor instability in soft solids. Extreme Mechanics Letters, 2020, 40, 100940.	4.1	9
21	Fluid Rheological Effects on the Flow of Polymer Solutions in a Contractionâ€“Expansion Microchannel. Micromachines, 2020, 11, 278.	2.9	23
22	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
23	Experimental observation of Faraday waves in soft gels. Physical Review E, 2020, 102, 060602.	2.1	6
24	Geometry of polygonal hydraulic jumps and the role of hysteresis. Physical Review Fluids, 2020, 5, .	2.5	2
25	Faraday waves in soft elastic solids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200129.	2.1	7
26	Particle separation in xanthan gum solutions. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	12
27	Elastocapillary Transition in Gel Drop Oscillations. Physical Review Letters, 2019, 123, 188002.	7.8	13
28	Development of an open-sourced automated ultrasonic-assisted soldering system. Journal of Manufacturing Processes, 2019, 47, 284-290.	5.9	6
29	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
30	The elastic Rayleigh drop. Soft Matter, 2019, 15, 9244-9252.	2.7	12
31	Leidenfrost drop dynamics: Exciting dormant modes. Physical Review Fluids, 2019, 4, .	2.5	4
32	Static rivulet instabilities: varicose and sinuousÂmodes. Journal of Fluid Mechanics, 2018, 837, 819-838.	3.4	23
33	Extracting the surface tension of soft gels from elastocapillary wave behavior. Soft Matter, 2018, 14, 7347-7353.	2.7	21
34	Capillary fracture of ultrasoft gels: variability and delayed nucleation. Soft Matter, 2017, 13, 2962-2966.	2.7	10
35	Self-spreading of the wetting ridge during stick-slip on a viscoelastic surface. Soft Matter, 2017, 13, 8331-8336.	2.7	34
36	Response of driven sessile drops with contact-line dissipation. Soft Matter, 2016, 12, 8919-8926.	2.7	16

#	Article	IF	Citations
37	Elastic membranes in confinement. Journal of the Royal Society Interface, 2016, 13, 20160408.	3.4	6
38	Dynamics of sessile drops. Part 2. Experiment. Journal of Fluid Mechanics, 2015, 768, 442-467.	3.4	51
39	Liquid-bridge shape stability by energy bounding. IMA Journal of Applied Mathematics, 2015, 80, 1759-1775.	1.6	8
40	Stability of Constrained Capillary Surfaces. Annual Review of Fluid Mechanics, 2015, 47, 539-568.	25.0	110
41	Dynamics of sessile drops. Part 1. Inviscid theory. Journal of Fluid Mechanics, 2014, 760, 5-38.	3.4	69
42	Elastocapillary deformations on partially-wetting substrates: rival contact-line models. Soft Matter, 2014, 10, 7361.	2.7	77
43	Spreading and bistability of droplets on differentially heated substrates. Journal of Fluid Mechanics, 2013, 725, 566-587.	3.4	10
44	Coupled oscillations of deformable spherical-cap droplets. Part 1. Inviscid motions. Journal of Fluid Mechanics, 2013, 714, 312-335.	3.4	24
45	Coupled oscillations of deformable spherical-cap droplets. Part 2. Viscous motions. Journal of Fluid Mechanics, 2013, 714, 336-360.	3.4	21
46	Substrate constraint modifies the Rayleigh spectrum of vibrating sessile drops. Physical Review E, 2013, 88, 023015.	2.1	56
47	Capillary fracture of soft gels. Physical Review E, 2013, 88, 042410.	2.1	21
48	Stability of constrained cylindrical interfaces and the torus lift of Plateauâ€“Rayleigh. Journal of Fluid Mechanics, 2010, 647, 201-219.	3.4	28
49	Capillary oscillations of a constrained liquid drop. Physics of Fluids, 2009, 21, .	4.0	88