

Emil-Alexandru Brujan

List of Publications by Year in descending order

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48
papers

2,315
citations

304368

22
h-index

315357

38
g-index

48
all docs

48
docs citations

48
times ranked

1352
citing authors

#	ARTICLE	IF	CITATIONS
1	The final stage of the collapse of a cavitation bubble close to a rigid boundary. <i>Physics of Fluids</i> , 2002, 14, 85-92.	1.6	349
2	Dynamics of laser-induced cavitation bubbles near an elastic boundary. <i>Journal of Fluid Mechanics</i> , 2001, 433, 251-281.	1.4	339
3	Dynamics of laser-induced cavitation bubbles near elastic boundaries: influence of the elastic modulus. <i>Journal of Fluid Mechanics</i> , 2001, 433, 283-314.	1.4	239
4	Stress wave emission and cavitation bubble dynamics by nanosecond optical breakdown in a tissue phantom. <i>Journal of Fluid Mechanics</i> , 2006, 558, 281.	1.4	158
5	On the pressure of cavitation bubbles. <i>Experimental Thermal and Fluid Science</i> , 2008, 32, 1188-1191.	1.5	137
6	The role of cavitation microjets in the therapeutic applications of ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 381-387.	0.7	103
7	Jet formation and shock wave emission during collapse of ultrasound-induced cavitation bubbles and their role in the therapeutic applications of high-intensity focused ultrasound. <i>Physics in Medicine and Biology</i> , 2005, 50, 4797-4809.	1.6	95
8	Dynamics of laser-induced cavitation bubbles near two perpendicular rigid walls. <i>Journal of Fluid Mechanics</i> , 2018, 841, 28-49.	1.4	86
9	Collapse of micrometer-sized cavitation bubbles near a rigid boundary. <i>Microfluidics and Nanofluidics</i> , 2012, 13, 957-966.	1.0	83
10	The final stage of the collapse of a cloud of bubbles close to a rigid boundary. <i>Ultrasonics Sonochemistry</i> , 2011, 18, 59-64.	3.8	76
11	Shock wave emission from a cloud of bubbles. <i>Soft Matter</i> , 2012, 8, 5777.	1.2	57
12	A first-order model for bubble dynamics in a compressible viscoelastic liquid. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 1999, 84, 83-103.	1.0	55
13	Dynamics of ultrasound-induced cavitation bubbles in non-Newtonian liquids and near a rigid boundary. <i>Physics of Fluids</i> , 2004, 16, 2402-2410.	1.6	47
14	Planar jets in collapsing cavitation bubbles. <i>Experimental Thermal and Fluid Science</i> , 2019, 101, 48-61.	1.5	47
15	Pulsating, buoyant bubbles close to a rigid boundary and near the null final Kelvin impulse state. <i>International Journal of Multiphase Flow</i> , 2005, 31, 302-317.	1.6	44
16	Shock wave emission from laser-induced cavitation bubbles in polymer solutions. <i>Ultrasonics</i> , 2008, 48, 423-426.	2.1	40
17	Shock wave emission and cavitation bubble dynamics by femtosecond optical breakdown in polymer solutions. <i>Ultrasonics Sonochemistry</i> , 2019, 58, 104694.	3.8	35
18	Cavitation in Non-Newtonian Fluids. , 2011, , .		33

#	ARTICLE	IF	CITATIONS
19	Collapse of cavitation bubbles in blood. <i>Europhysics Letters</i> , 2000, 50, 175-181.	0.7	29
20	Cardiovascular cavitation. <i>Medical Engineering and Physics</i> , 2009, 31, 742-751.	0.8	29
21	Cavitation Phenomena in Non-Newtonian Liquids. <i>Chemical Engineering Research and Design</i> , 2006, 84, 293-299.	2.7	28
22	Cavitation erosion in polymer aqueous solutions. <i>Wear</i> , 2008, 264, 1035-1042.	1.5	23
23	Cavitation bubble dynamics in non-Newtonian fluids. <i>Polymer Engineering and Science</i> , 2009, 49, 419-431.	1.5	23
24	Bubble dynamics in a compressible shear-thinning liquid. <i>Fluid Dynamics Research</i> , 1998, 23, 291-318.	0.6	22
25	Properties of luminescence from laser-created bubbles in pressurized water. <i>Physical Review E</i> , 2005, 72, 066310.	0.8	19
26	Numerical investigation on the dynamics of cavitation nanobubbles. <i>Microfluidics and Nanofluidics</i> , 2011, 11, 511-517.	1.0	16
27	The equation of bubble dynamics in a compressible linear viscoelastic liquid. <i>Fluid Dynamics Research</i> , 2001, 29, 287-294.	0.6	12
28	The Effect of Polymer Concentration on the Non-Linear Oscillation of a Bubble in a Sound-Irradiated Liquid. <i>Journal of Sound and Vibration</i> , 1994, 173, 329-342.	2.1	10
29	Shock wave emission from a hemispherical cloud of bubbles in non-Newtonian fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2014, 204, 32-37.	1.0	10
30	Luminescence spectra of laser-induced cavitation bubbles near rigid boundaries. <i>Physical Review E</i> , 2005, 72, 016304.	0.8	9
31	Interaction of laser-produced cavitation bubbles with an elastic tissue model. , 2001, 4257, 167.		8
32	Bifurcation Structure of Bubble Oscillators in Polymer Solutions. <i>Acta Acustica United With Acustica</i> , 2009, 95, 241-246.	0.8	8
33	Stress wave emission from plasmonic nanobubbles. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 015304.	1.3	8
34	Dynamics of laser-induced cavitation bubbles near an elastic boundary used as a tissue phantom. <i>AIP Conference Proceedings</i> , 2000, , .	0.3	7
35	The effect of polymer additives on the bubble behavior and impulse pressure. <i>Chemical Engineering Science</i> , 1993, 48, 3519-3527.	1.9	6
36	Dynamics of shock waves and cavitation bubbles in bilinear elastic-plastic media, and the implications to short-pulsed laser surgery. <i>EPJ Applied Physics</i> , 2005, 29, 115-123.	0.3	6

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37	Jets from pulsed-ultrasound-induced cavitation bubbles near a rigid boundary. Journal Physics D: Applied Physics, 2017, 50, 215302.	1.3	6
38	The behavior of bubbles in Bueche model fluids. Polymer Engineering and Science, 1994, 34, 1550-1559.	1.5	5
39	Non-Newtonian Fluids. , 2011, , 1-47.		2
40	Cavitation Erosion. , 2011, , 155-174.		2
41	Stress wave emission and cavitation bubble dynamics by nanosecond optical breakdown in a tissue phantom " CORRIGENDUM. Journal of Fluid Mechanics, 2008, 608, 411-411.	1.4	1
42	Bubble Dynamics. , 2011, , 63-116.		1
43	Hydrodynamic Cavitation. , 2011, , 117-153.		1
44	Interaction of Laser-Produced Cavitation Bubbles with Elastic Boundaries. Fluid Mechanics and Its Applications, 2001, , 327-335.	0.1	1
45	Nucleation. , 2011, , 49-61.		0
46	Nanocavitation for Cell Surgery. , 2011, , 225-248.		0
47	Cavitation in Other Non-Newtonian Biological Fluids. , 2011, , 249-263.		0
48	Cardiovascular Cavitation. , 2011, , 175-223.		0