

Ronald A Roy

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

96
papers

4,080
citations

31
h-index

63
g-index

123
ext. papers

4,548
ext. citations

3.1
avg, IF

5.18
L-index

#	Paper	IF	Citations
96	Genetic engineering biofilms in situ using ultrasound-mediated DNA delivery. <i>Microbial Biotechnology</i> , 2021 , 14, 1580-1593	6.3	0
95	The influence of droplet concentration on phase change and inertial cavitation thresholds associated with acoustic droplet vaporization. <i>Journal of the Acoustical Society of America</i> , 2020 , 148, EL375	2.2	5
94	SVD-Based Separation of Stable and Inertial Cavitation Signals Applied to Passive Cavitation Mapping During HIFU. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2019 , 66, 857-866	3.2	1
93	Photo- and Sono-Dynamic Therapy: A Review of Mechanisms and Considerations for Pharmacological Agents Used in Therapy Incorporating Light and Sound. <i>Current Pharmaceutical Design</i> , 2019 , 25, 401-412	3.3	21
92	HIFU-induced changes in optical scattering and absorption of tissue over nine orders of thermal dose. <i>Physics in Medicine and Biology</i> , 2018 , 63, 245001	3.8	7
91	Modeling-based design and assessment of an acousto-optic guided high-intensity focused ultrasound system. <i>Journal of Biomedical Optics</i> , 2017 , 22, 17001	3.5	3
90	Characterizing shock waves in hydrogel using high speed imaging and a fiber-optic probe hydrophone. <i>Physics of Fluids</i> , 2017 , 29, 057101	4.4	6
89	Thermal dose dependent optical property changes of ex vivo chicken breast tissues between 500 and 1100 nm. <i>Physics in Medicine and Biology</i> , 2014 , 59, 3249-60	3.8	9
88	Gold nanoparticle targeted photoacoustic cavitation for potential deep tissue imaging and therapy. <i>Biomedical Optics Express</i> , 2013 , 4, 66-76	3.5	59
87	Experimental characterisation of light emission during shock-driven cavity collapse 2013 ,		1
86	Measuring tissue properties and monitoring therapeutic responses using acousto-optic imaging. <i>Annals of Biomedical Engineering</i> , 2012 , 40, 474-85	4.7	6
85	Modeling cavitation nucleation from laser-illuminated nanoparticles subjected to acoustic stress. <i>Journal of the Acoustical Society of America</i> , 2011 , 130, 3252-63	2.2	8
84	Real-time monitoring of high-intensity focused ultrasound lesion formation using acousto-optic sensing. <i>Ultrasound in Medicine and Biology</i> , 2011 , 37, 239-52	3.5	24
83	Potentiating intra-arterial sonothrombolysis for acute ischemic stroke by the addition of the ultrasound contrast agents (Optison & SonoVue (□)). <i>Journal of Thrombosis and Thrombolysis</i> , 2011 , 31, 71-84	5.1	16
82	Bubbles. Foreword. <i>Journal of the Acoustical Society of America</i> , 2011 , 130, 3183	2.2	
81	Ambient acceleration dependence of single-bubble sonoluminescence. <i>Journal of the Acoustical Society of America</i> , 2011 , 130, 3282-8	2.2	
80	Nanoparticle-targeted photoacoustic cavitation for tissue imaging 2010 ,		1

79	Monitoring and guidance of high intensity focused ultrasound exposures in real time using acousto-optic imaging: feasibility and demonstration ex vivo 2010 ,		1
78	Ultrasonic enhancement of photoacoustic emissions by nanoparticle-targeted cavitation. <i>Optics Letters</i> , 2010 , 35, 2127-9	3	38
77	Detecting cavitation in mercury exposed to a high-energy pulsed proton beam. <i>Journal of the Acoustical Society of America</i> , 2010 , 127, 2231-9	2.2	8
76	Dynamics of gas bubbles in time-variant temperature fields. <i>Journal of Fluid Mechanics</i> , 2010 , 663, 209-237	3.7	8
75	Mitigation of Damage to Solid Surfaces From the Collapse of Cavitation Bubble Clouds. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2010 , 132,	2.1	8
74	The correlation between bubble-enhanced HIFU heating and cavitation power. <i>IEEE Transactions on Biomedical Engineering</i> , 2010 , 57, 175-84	5	78
73	Sensing the optical properties of diffusive media by acousto-optic pressure contrast imaging 2009 ,		1
72	Temporal and spatial detection of HIFU-induced inertial and hot-vapor cavitation with a diagnostic ultrasound system. <i>Ultrasound in Medicine and Biology</i> , 2009 , 35, 603-15	3.5	99
71	Quantitative characterization of turbid media using pressure contrast acousto-optic imaging. <i>Optics Letters</i> , 2009 , 34, 2850-2	3	22
70	Detection of HIFU lesions in Excised Tissue Using Acousto-Optic Imaging 2009 ,		2
69	Photoacoustic thermometry for therapeutic hyperthermia 2009 ,		2
68	Sensing a buried resonant object by single-channel time reversal. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009 , 56, 1429-41	3.2	5
67	Applications of Acoustics and Cavitation to Noninvasive Therapy and Drug Delivery. <i>Annual Review of Fluid Mechanics</i> , 2008 , 40, 395-420	22	321
66	An audible demonstration of the speed of sound in bubbly liquids. <i>American Journal of Physics</i> , 2008 , 76, 975-981	0.7	26
65	The low-frequency sound speed of fluid-like gas-bearing sediments. <i>Journal of the Acoustical Society of America</i> , 2008 , 123, EL99-104	2.2	6
64	Illuminating Sound: Imaging Tissue Optical Properties with Ultrasound. <i>Acoustics Today</i> , 2007 , 3, 17	0	3
63	Role of acoustic cavitation in the delivery and monitoring of cancer treatment by high-intensity focused ultrasound (HIFU). <i>International Journal of Hyperthermia</i> , 2007 , 23, 105-20	3.7	295
62	Cavitation mechanisms in ultrasound-accelerated fibrinolysis. <i>Ultrasound in Medicine and Biology</i> , 2007 , 33, 924-33	3.5	122

61	Evidence of dispersion in an artificial water-saturated sand sediment. <i>Journal of the Acoustical Society of America</i> , 2007 , 121, 824-32	2.2	13
60	Thermal Lesion Development in Bubble-Mediated HIFU: Modeling. <i>AIP Conference Proceedings</i> , 2006 ,	0	1
59	Monitoring the Development of HIFU-Induced Cavitation Activity. <i>AIP Conference Proceedings</i> , 2006	0	5
58	Therapeutic Bubbles: Basic Principles of Cavitation in Therapeutic Ultrasound. <i>AIP Conference Proceedings</i> , 2006 ,	0	2
57	Monitoring HIFU Lesion Formation In Vitro Via The Driving Voltage. <i>AIP Conference Proceedings</i> , 2006 ,	0	2
56	Computations of the acoustically induced phase shifts of optical paths in acoustophotonic imaging with photorefractive-based detection. <i>Applied Optics</i> , 2005 , 44, 3735-46	1.7	14
55	Imaging in diffuse media with pulsed-ultrasound-modulated light and the photorefractive effect. <i>Applied Optics</i> , 2005 , 44, 4041-8	1.7	17
54	Fusion of conventional ultrasound imaging and acousto-optic sensing by use of a standard pulsed-ultrasound scanner. <i>Optics Letters</i> , 2005 , 30, 744-6	3	24
53	Dynamics and control of cavitation during high-intensity focused ultrasound application. <i>Acoustics Research Letters Online: ARLO</i> , 2005 , 6, 182-187		32
52	Modeling of optoacoustic signal generation for high resolution near-surface imaging with experimental verification 2005 , 5697, 224		1
51	Nucleating cavitation from laser-illuminated nano-particles. <i>Acoustics Research Letters Online: ARLO</i> , 2005 , 6, 138-143		63
50	Characterization of individual submicron perfluorocarbon gas bubbles by ultrasonic backscatter. <i>Acoustics Research Letters Online: ARLO</i> , 2005 , 6, 175-181		1
49	Phase speed and attenuation in bubbly liquids inferred from impedance measurements near the individual bubble resonance frequency. <i>Journal of the Acoustical Society of America</i> , 2005 , 117, 1895-910	2.2	42
48	Bubble dynamics and size distributions during focused ultrasound insonation. <i>Journal of the Acoustical Society of America</i> , 2004 , 116, 3423-31	2.2	53
47	Experimental validation of a tractable numerical model for focused ultrasound heating in flow-through tissue phantoms. <i>Journal of the Acoustical Society of America</i> , 2004 , 116, 2451-8	2.2	115
46	Bubble dynamics near the onset of single-bubble sonoluminescence. <i>Physical Review E</i> , 2004 , 70, 066301	2.4	4
45	Detection of ultrasound-modulated photons in diffuse media using the photorefractive effect. <i>Optics Letters</i> , 2004 , 29, 2509-11	3	95
44	Enhanced detection of acousto-photonic scattering using a photorefractive crystal 2004 ,		1

43	An improved water-filled impedance tube. <i>Journal of the Acoustical Society of America</i> , 2003 , 113, 3245-522		29
42	Measurements of bubble-enhanced heating from focused, MHz-frequency ultrasound in a tissue-mimicking material. <i>Ultrasound in Medicine and Biology</i> , 2001 , 27, 1399-412	3.5	269
41	Laser-induced acoustic imaging of buried land mines: experiment and modeling 2001 , 4394, 627		5
40	Acoustic scattering from a bubbly-liquid-filled compliant cylinder. <i>Acoustics Research Letters Online: ARLO</i> , 2001 , 2, 103-108		1
39	Amplitude degradation of time-reversed pulses in nonlinear absorbing thermoviscous fluids. <i>Ultrasonics</i> , 2000 , 38, 885-9	3.5	6
38	The effects of buoyancy on sonoluminescing bubbles. <i>Acoustics Research Letters Online: ARLO</i> , 2000 , 1, 13-18		3
37	Dynamics of gas bubbles in viscoelastic fluids. I. Linear viscoelasticity. <i>Journal of the Acoustical Society of America</i> , 2000 , 107, 3167-78	2.2	78
36	Dynamics of gas bubbles in viscoelastic fluids. II. Nonlinear viscoelasticity. <i>Journal of the Acoustical Society of America</i> , 2000 , 108, 1640-50	2.2	68
35	The underwater sounds produced by impacting snowflakes. <i>Journal of the Acoustical Society of America</i> , 1999 , 106, 1765-1770	2.2	6
34	Cavitation Sonophysics 1999 , 25-38		7
33	Conventional and hypobaric activation of an ultrasound contrast agent. <i>Ultrasound in Medicine and Biology</i> , 1998 , 24, 1143-50	3.5	12
32	The acoustic emissions from single-bubble sonoluminescence. <i>Journal of the Acoustical Society of America</i> , 1998 , 103, 1377-1382	2.2	67
31	Optical pulse width measurements of sonoluminescence in cavitation-bubble fields. <i>Journal of the Acoustical Society of America</i> , 1997 , 101, 1994-2002	2.2	36
30	Bjerknes force and bubble levitation under single-bubble sonoluminescence conditions. <i>Journal of the Acoustical Society of America</i> , 1997 , 102, 1522-1527	2.2	82
29	Comparisons of sonoluminescence from single-bubbles and cavitation fields: bridging the gap. <i>Ultrasonics Sonochemistry</i> , 1997 , 4, 61-4	8.9	27
28	Liver hemostasis using high-intensity focused ultrasound. <i>Ultrasound in Medicine and Biology</i> , 1997 , 23, 1413-20	3.5	109
27	FDTD Simulation of Transcranial Focusing Using Ultrasonic Phase-Conjugate Arrays. <i>Acoustical Imaging</i> , 1997 , 61-66		1
26	Measurements of the acoustic emission from glowing bubbles. <i>Journal of the Acoustical Society of America</i> , 1996 , 100, 2717-2717	2.2	4

25	Preliminary experimental observations of the effects of buoyancy on single-bubble sonoluminescence in microgravity and hypergravity. <i>Journal of the Acoustical Society of America</i> , 1996 , 100, 2717-2717	2.2	6
24	Phase velocity measurements in bubbly liquids using a fiber optic laser interferometer. <i>Journal of the Acoustical Society of America</i> , 1995 , 97, 1621-1624	2.2	37
23	Comparison of multibubble and single-bubble sonoluminescence spectra. <i>Physical Review Letters</i> , 1995 , 75, 2602-2605	7.4	164
22	Nonlinear coupling between the surface and volume modes of an oscillating bubble. <i>Journal of the Acoustical Society of America</i> , 1995 , 98, 2764-2771	2.2	12
21	Artificial Bubble Cloud Targets for Underwater Acoustic Remote Sensing. <i>Journal of Atmospheric and Oceanic Technology</i> , 1995 , 12, 1287-1302	2	4
20	Sound emissions by a laboratory bubble cloud. <i>Journal of the Acoustical Society of America</i> , 1994 , 95, 3171-3182	2.2	49
19	Low-frequency acoustic emissions in fresh and salt water. <i>Journal of the Acoustical Society of America</i> , 1994 , 96, 1766-1772	2.2	13
18	Bubble production by capillary-gravity waves. <i>Journal of the Acoustical Society of America</i> , 1994 , 95, 1913-1921	2.2	12
17	Some observations on the breakage of ultrasonic files driven piezoelectrically. <i>Dental Traumatology</i> , 1994 , 10, 71-6	4.5	4
16	Variations in power output of the Piezon-Master 400 ultrasonic endodontic unit. <i>International Endodontic Journal</i> , 1994 , 27, 26-31	5.4	5
15	Physical mechanisms governing the hydrodynamic response of an oscillating ultrasonic file. <i>International Endodontic Journal</i> , 1994 , 27, 197-207	5.4	71
14	The vibratory pattern of ultrasonic files driven piezoelectrically. <i>International Endodontic Journal</i> , 1993 , 26, 120-4	5.4	23
13	Low-frequency underwater sound generation by impacting transient cylindrical water jets. <i>Journal of the Acoustical Society of America</i> , 1993 , 94, 2809-2820	2.2	16
12	Low-frequency scattering from submerged bubble clouds. <i>Journal of the Acoustical Society of America</i> , 1992 , 92, 2993-2996	2.2	17
11	In vitro detection of cavitation induced by a diagnostic ultrasound system. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1992 , 39, 95-101	3.2	34
10	Acoustic cavitation produced by microsecond pulses of ultrasound: a discussion of some selected results. <i>Journal of the Acoustical Society of America</i> , 1992 , 91, 1113-9	2.2	66
9	Sonoluminescence and bubble dynamics for a single, stable, cavitation bubble. <i>Journal of the Acoustical Society of America</i> , 1992 , 91, 3166-3183	2.2	604
8	Observations of acoustic streaming fields around an oscillating ultrasonic file. <i>Dental Traumatology</i> , 1992 , 8, 189-94	4.5	25

7	An investigation of the acoustic emissions from a bubble plume. <i>Journal of the Acoustical Society of America</i> , 1991 , 89, 2452-2455	2.2	18
6	Acoustic microcavitation: its active and passive acoustic detection. <i>Journal of the Acoustical Society of America</i> , 1991 , 90, 1515-26	2.2	75
5	Mechanical characterization of microparticles by scattered ultrasound. <i>Journal of the Acoustical Society of America</i> , 1990 , 87, 2332-41	2.2	23
4	An acoustic backscattering technique for the detection of transient cavitation produced by microsecond pulses of ultrasound. <i>Journal of the Acoustical Society of America</i> , 1990 , 87, 2451-8	2.2	119
3	Thresholds for cavitation produced in water by pulsed ultrasound. <i>Ultrasonics</i> , 1988 , 26, 280-5	3.5	114
2	Reply to [On the measurement and interpretation of cavitation thresholds [J. Acoust. Soc. Am. 82, 690-691 (1987)]. <i>Journal of the Acoustical Society of America</i> , 1987 , 82, 691-691	2.2	1
1	A precise technique for the measurement of acoustic cavitation thresholds and some preliminary results. <i>Journal of the Acoustical Society of America</i> , 1985 , 78, 1799-805	2.2	44