

Timothy A Bigelow

List of Publications by Year in descending order

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47
papers

1,018
citations

393982

19
h-index

433756

31
g-index

50
all docs

50
docs citations

50
times ranked

795
citing authors

#	ARTICLE	IF	CITATIONS
1	A theoretical comparison of attenuation measurement techniques from backscattered ultrasound echoes. Journal of the Acoustical Society of America, 2011, 129, 2316-2324.	0.5	87
2	The Thermal Index. Journal of Ultrasound in Medicine, 2011, 30, 714-734.	0.8	62
3	<i>In vivo</i> ultrasonic attenuation slope estimates for detecting cervical ripening in rats: Preliminary results. Journal of the Acoustical Society of America, 2008, 123, 1794-1800.	0.5	61
4	Estimation of total attenuation and scatterer size from backscattered ultrasound waveforms. Journal of the Acoustical Society of America, 2005, 117, 1431-1439.	0.5	59
5	The Destruction of Escherichia Coli Biofilms Using High-Intensity Focused Ultrasound. Ultrasound in Medicine and Biology, 2009, 35, 1026-1031.	0.7	57
6	Ultrasonic Attenuation and Backscatter Coefficient Estimates of Rodent-Tumor-Mimicking Structures: Comparison of Results among Clinical Scanners. Ultrasonic Imaging, 2011, 33, 233-250.	1.4	45
7	Estimate of the attenuation coefficient using a clinical array transducer for the detection of cervical ripening in human pregnancy. Ultrasonics, 2011, 51, 34-39.	2.1	45
8	Cross-imaging system comparison of backscatter coefficient estimates from a tissue-mimicking material. Journal of the Acoustical Society of America, 2012, 132, 1319-1324.	0.5	38
9	Minimization of treatment time for in vitro 1.1MHz destruction of Pseudomonas aeruginosa biofilms by high-intensity focused ultrasound. Ultrasonics, 2012, 52, 668-675.	2.1	37
10	Diagnostic Ultrasound Safety Review for Point-of-Care Ultrasound Practitioners. Journal of Ultrasound in Medicine, 2020, 39, 1069-1084.	0.8	33
11	Experimental Investigation of the Effect of Stiffness, Exposure Time and Scan Direction on the Dimension of Ultrasound Histotripsy Lesions. Ultrasound in Medicine and Biology, 2011, 37, 1865-1873.	0.7	31
12	Lysis of Chlamydomonas reinhardtii by high-intensity focused ultrasound as a function of exposure time. Ultrasonics Sonochemistry, 2014, 21, 1258-1264.	3.8	29
13	Scatterer size estimation in pulse-echo ultrasound using focused sources: Theoretical approximations and simulation analysis. Journal of the Acoustical Society of America, 2004, 116, 578-593.	0.5	28
14	Impact of local attenuation approximations when estimating correlation length from backscattered ultrasound echoes. Journal of the Acoustical Society of America, 2006, 120, 546-553.	0.5	28
15	Beyond Cervical Length: A Pilot Study of Ultrasonic Attenuation for Early Detection of Preterm Birth Risk. Ultrasound in Medicine and Biology, 2015, 41, 3023-3029.	0.7	28
16	Investigation of Nondestructive Testing Methods for Friction Stir Welding. Metals, 2019, 9, 624.	1.0	28
17	Scatterer size estimation in pulse-echo ultrasound using focused sources: Calibration measurements and phantom experiments. Journal of the Acoustical Society of America, 2004, 116, 594-602.	0.5	24
18	Estimating the total ultrasound attenuation along the propagation path by using a reference phantom. Journal of the Acoustical Society of America, 2010, 128, 3232-3238.	0.5	24

#	ARTICLE	IF	CITATIONS
19	Development of an Ultrasonic Method to Detect Cervical Remodeling inÂVivo in Full-Term Pregnant Women. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 2533-2539.	0.7	23
20	Cross-Imaging Platform Comparison of Ultrasonic Backscatter Coefficient Measurements of Live Rat Tumors. <i>Journal of Ultrasound in Medicine</i> , 2010, 29, 1117-1123.	0.8	20
21	Dependence of optimal seed bubble size on pressure amplitude at therapeutic pressure levels. <i>Ultrasonics</i> , 2011, 51, 115-122.	2.1	19
22	Histotripsy Treatment of <i>S. Aureus</i> Biofilms on Surgical Mesh Samples Under Varying Pulse Durations. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2017, 64, 1420-1428.	1.7	18
23	Ultrasound attenuation estimation using backscattered echoes from multiple sources. <i>Journal of the Acoustical Society of America</i> , 2008, 124, 1367-1373.	0.5	16
24	Estimating the total ultrasound attenuation along the propagation path by applying multiple filters to backscattered echoes from a single spherically focused source. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2010, 57, 900-907.	1.7	15
25	Impact of Preconditioning Pulse on Lesion Formation During High-Intensity Focused Ultrasound Histotripsy. <i>Ultrasound in Medicine and Biology</i> , 2012, 38, 1918-1929.	0.7	15
26	Signal processing strategies that improve performance and understanding of the quantitative ultrasound SPECTRAL FIT algorithm. <i>Journal of the Acoustical Society of America</i> , 2005, 118, 1808-1819.	0.5	14
27	Histotripsy Treatment of <i>S. Aureus</i> Biofilms on Surgical Mesh Samples Under Varying Scan Parameters. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2018, 65, 1017-1024.	1.7	14
28	Experimental evaluation of indicators of nonlinearity for use in ultrasound transducer characterizations. <i>Ultrasound in Medicine and Biology</i> , 2002, 28, 1509-1520.	0.7	13
29	Hemorrhage near fetal rat bone exposed to pulsed ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2007, 33, 311-317.	0.7	13
30	Improved algorithm for estimation of attenuation along propagation path using backscattered echoes from multiple sources. <i>Ultrasonics</i> , 2010, 50, 496-501.	2.1	12
31	Dependence of ablative ability of high-intensity focused ultrasound cavitation-based histotripsy on mechanical properties of agar. <i>Journal of the Acoustical Society of America</i> , 2014, 136, 3018-3027.	0.5	12
32	Precision control of lesions by high-intensity focused ultrasound cavitation-based histotripsy through varying pulse duration. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013, 60, 1401-1411.	1.7	10
33	Impact of High-Intensity Ultrasound on Strength of Surgical Mesh When Treating Biofilm Infections. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2019, 66, 38-44.	1.7	10
34	Effect of pulse repetition frequency and scan step size on the dimensions of the lesions formed in agar by HIFU histotripsy. <i>Ultrasonics</i> , 2013, 53, 889-896.	2.1	8
35	Assessment of Ultrasound Histotripsy-Induced Damage to Ex Vivo Porcine Muscle. <i>Journal of Ultrasound in Medicine</i> , 2013, 32, 69-82.	0.8	8
36	Flow rate and duty cycle effects in lysis of <i>Chlamydomonas reinhardtii</i> using high-energy pulsed focused ultrasound. <i>Journal of the Acoustical Society of America</i> , 2014, 135, 3632-3638.	0.5	7

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37	A model for estimating ultrasound attenuation along the propagation path to the fetus from backscattered waveforms. <i>Journal of the Acoustical Society of America</i> , 2005, 118, 1210-1220.	0.5	6
38	Detection of pores in additive manufactured parts by near field response of laser-induced ultrasound. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	5
39	Scan Parameter Optimization for Histotripsy Treatment of <i>S. Aureus</i> Biofilms on Surgical Mesh. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2020, 67, 341-349.	1.7	4
40	Optimization of the algorithms for estimating the ultrasonic attenuation along the propagation path. <i>Ultrasonics</i> , 2012, 52, 720-729.	2.1	3
41	Ensuring Clinical Efficacy and Patient Safety With Repaired Ultrasound Probes. <i>Journal of Ultrasound in Medicine</i> , 2018, 37, 315-328.	0.8	3
42	Comparison of algorithms for estimating ultrasound attenuation when predicting cervical remodeling in a rat model. , 2011, , .		2
43	Correlation of Hemorrhage Near Developing Opossum Skull With Pulsed Ultrasound Exposure Parameters. <i>Journal of Ultrasound in Medicine</i> , 2015, 34, 1351-1361.	0.8	2
44	Estimation of ultrasound tissue attenuation along the propagation path by applying multiple filters to the backscattered echoes. , 2009, , .		1
45	Hemorrhage Near Fetal Rat Bone: Preliminary Results. <i>AIP Conference Proceedings</i> , 2006, , .	0.3	0
46	Dependence of Cavitation Bubble Size on Pressure Amplitude at Therapeutic Levels. , 2009, , .		0
47	Impact of step size on histotripsy treatment of staphylococcus aureus biofilms on surgical mesh. , 2017, , .		0