

William D O'brien Jr

List of Publications by Year in descending order

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120
papers

3,315
citations

159358

30
h-index

168136

53
g-index

121
all docs

121
docs citations

121
times ranked

2903
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrasound's biophysics mechanisms. Progress in Biophysics and Molecular Biology, 2007, 93, 212-255.	1.4	538
2	Noninvasive Diagnosis of Nonalcoholic Fatty Liver Disease and Quantification of Liver Fat Using a New Quantitative Ultrasound Technique. Clinical Gastroenterology and Hepatology, 2015, 13, 1337-1345.e6.	2.4	200
3	Interlaboratory Comparison of Ultrasonic Backscatter Coefficient Measurements From 2 to 9 MHz. Journal of Ultrasound in Medicine, 2005, 24, 1235-1250.	0.8	135
4	A Pilot Comparative Study of Quantitative Ultrasound, Conventional Ultrasound, and MRI for Predicting Histology-Determined Steatosis Grade in Adult Nonalcoholic Fatty Liver Disease. American Journal of Roentgenology, 2017, 208, W168-W177.	1.0	113
5	Ultrasonic contrast agent shell rupture detected by inertial cavitation and rebound signals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 126-136.	1.7	94
6	Examination of Inertial Cavitation of Optison in Producing Sonoporation of Chinese Hamster Ovary Cells. Ultrasound in Medicine and Biology, 2008, 34, 2009-2018.	0.7	87
7	Noninvasive Diagnosis of Nonalcoholic Fatty Liver Disease and Quantification of Liver Fat with Radiofrequency Ultrasound Data Using One-dimensional Convolutional Neural Networks. Radiology, 2020, 295, 342-350.	3.6	79
8	Measurement of Attenuation and Speed of Sound in Soils. Soil Science Society of America Journal, 2002, 66, 788-796.	1.2	79
9	Targeted Ultrasound-Assisted Cancer-Selective Chemical Labeling and Subsequent Cancer Imaging using Click Chemistry. Angewandte Chemie - International Edition, 2016, 55, 5452-5456.	7.2	76
10	Identifying ultrasonic scattering sites from three-dimensional impedance maps. Journal of the Acoustical Society of America, 2005, 117, 413-423.	0.5	75
11	Application of Three Scattering Models to Characterization of Solid Tumors in Mice. Ultrasonic Imaging, 2006, 28, 83-96.	1.4	72
12	The Risk of Exposure to Diagnostic Ultrasound in Postnatal Subjects. Journal of Ultrasound in Medicine, 2008, 27, 517-535.	0.8	68
13	Assessment of Hepatic Steatosis in Nonalcoholic Fatty Liver Disease by Using Quantitative US. Radiology, 2020, 295, 106-113.	3.6	57
14	Comparison of Ultrasound Attenuation and Backscatter Estimates in Layered Tissue-Mimicking Phantoms among Three Clinical Scanners. Ultrasonic Imaging, 2012, 34, 209-221.	1.4	54
15	Interlaboratory Comparison of Backscatter Coefficient Estimates for Tissue-Mimicking Phantoms. Ultrasonic Imaging, 2010, 32, 48-64.	1.4	53
16	Arrhythmias in Rat Hearts Exposed to Pulsed Ultrasound After Intravenous Injection of a Contrast Agent. Journal of Ultrasound in Medicine, 2002, 21, 1347-1356.	0.8	50
17	Parametric Imaging of Rat Mammary Tumors In Vivo for the Purposes of Tissue Characterization. Journal of Ultrasound in Medicine, 2002, 21, 1201-1210.	0.8	46
18	Improvement of in vitro thrombolysis employing magnetically-guided microspheres. Thrombosis Research, 2008, 121, 799-811.	0.8	46

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19	Inadequate dietary magnesium intake increases atherosclerotic plaque development in rabbits. <i>Nutrition Research</i> , 2009, 29, 343-349.	1.3	45
20	Ultrasonic Attenuation and Backscatter Coefficient Estimates of Rodent-Tumor-Mimicking Structures: Comparison of Results among Clinical Scanners. <i>Ultrasonic Imaging</i> , 2011, 33, 233-250.	1.4	45
21	Repeatability and Reproducibility of the Ultrasonic Attenuation Coefficient and Backscatter Coefficient Measured in the Right Lobe of the Liver in Adults With Known or Suspected Nonalcoholic Fatty Liver Disease. <i>Journal of Ultrasound in Medicine</i> , 2018, 37, 1913-1927.	0.8	43
22	Determination of postexcitation thresholds for single ultrasound contrast agent microbubbles using double passive cavitation detection. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 3449-3455.	0.5	39
23	Ultrasound-induced lung hemorrhage: Role of acoustic boundary conditions at the pleural surface. <i>Journal of the Acoustical Society of America</i> , 2002, 111, 1102-1109.	0.5	38
24	Cross-imaging system comparison of backscatter coefficient estimates from a tissue-mimicking material. <i>Journal of the Acoustical Society of America</i> , 2012, 132, 1319-1324.	0.5	38
25	Superthreshold behavior and threshold estimation of ultrasound-induced lung hemorrhage in pigs: Role of age dependency. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2003, 50, 153-169.	1.7	37
26	Attenuation coefficient and propagation speed estimates of rat and pig intercostal tissue as a function of temperature. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2002, 49, 1411-1420.	1.7	35
27	Frequency-Dependent Evaluation of the Role of Definity in Producing Sonoporation of Chinese Hamster Ovary Cells. <i>Journal of Ultrasound in Medicine</i> , 2011, 30, 61-69.	0.8	34
28	Comparison between maximum radial expansion of ultrasound contrast agents and experimental postexcitation signal results. <i>Journal of the Acoustical Society of America</i> , 2011, 129, 114-121.	0.5	32
29	Evaluation of the Threshold for Lung Hemorrhage by Diagnostic Ultrasound and a Proposed New Safety Index. <i>Ultrasound in Medicine and Biology</i> , 2007, 33, 810-818.	0.7	31
30	Repeatability and Reproducibility of a Clinically Based QUS Phantom Study and Methodologies. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2017, 64, 218-231.	1.7	31
31	Ultrasonic backscatter coefficient quantitative estimates from high-concentration Chinese hamster ovary cell pellet biophantoms. <i>Journal of the Acoustical Society of America</i> , 2011, 130, 4139-4147.	0.5	30
32	Threshold estimates and superthreshold behavior of ultrasound-induced lung hemorrhage in adult rats: role of pulse duration. <i>Ultrasound in Medicine and Biology</i> , 2003, 29, 1625-1634.	0.7	29
33	Structure function for high-concentration biophantoms of polydisperse scatterer sizes. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2015, 62, 303-318.	1.7	29
34	Inter-sonographer reproducibility of quantitative ultrasound outcomes and shear wave speed measured in the right lobe of the liver in adults with known or suspected non-alcoholic fatty liver disease. <i>European Radiology</i> , 2018, 28, 4992-5000.	2.3	29
35	Development of a theoretical model describing sonoporation activity of cells exposed to ultrasound in the presence of contrast agents. <i>Journal of the Acoustical Society of America</i> , 2012, 131, 2723-2729.	0.5	28
36	Beyond Cervical Length: A Pilot Study of Ultrasonic Attenuation for Early Detection of Preterm Birth Risk. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 3023-3029.	0.7	28

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37	Behavioral teratologic effects of prenatal exposure to continuous-wave ultrasound in unanesthetized rats. <i>Teratology</i> , 1994, 50, 238-249.	1.8	27
38	The measurement of ultrasound backscattering from cell pellet biophantoms and tumors <i>in vivo</i> . <i>Journal of the Acoustical Society of America</i> , 2013, 134, 686-693.	0.5	27
39	Inter-platform reproducibility of ultrasonic attenuation and backscatter coefficients in assessing NAFLD. <i>European Radiology</i> , 2019, 29, 4699-4708.	2.3	26
40	Ultrasonic Imaging of Microleaks and Seal Contamination in Flexible Food Packages by the Pulse Echo Technique. <i>Journal of Food Science</i> , 1998, 63, 673-678.	1.5	25
41	Lesions of ultrasound-induced lung hemorrhage are not consistent with thermal injury. <i>Ultrasound in Medicine and Biology</i> , 2006, 32, 1763-1770.	0.7	24
42	Measurement of Attenuation and Speed of Sound in Soils. <i>Soil Science Society of America Journal</i> , 2002, 66, 788.	1.2	24
43	Acoustic Output Upper Limits Proposition. <i>Journal of Ultrasound in Medicine</i> , 2002, 21, 1335-1341.	0.8	23
44	Threshold estimation of ultrasound-induced lung hemorrhage in adult rabbits and comparison of thresholds in mice, rats, rabbits and pigs. <i>Ultrasound in Medicine and Biology</i> , 2006, 32, 1793-1804.	0.7	23
45	Development of an Ultrasonic Method to Detect Cervical Remodeling <i>in Vivo</i> in Full-Term Pregnant Women. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 2533-2539.	0.7	23
46	A teratologic evaluation of continuous-wave, daily ultrasound exposure in unanesthetized pregnant rats. <i>Teratology</i> , 1991, 44, 667-674.	1.8	22
47	Liver Fat Assessment in Multiview Sonography Using Transfer Learning With Convolutional Neural Networks. <i>Journal of Ultrasound in Medicine</i> , 2022, 41, 175-184.	0.8	22
48	Assessing the Risks for Modern Diagnostic Ultrasound Imaging. <i>Japanese Journal of Applied Physics</i> , 1998, 37, 2781-2788.	0.8	21
49	Effect of pulse polarity and energy on ultrasound-induced lung hemorrhage in adult rats. <i>Journal of the Acoustical Society of America</i> , 2003, 113, 2912-2918.	0.5	21
50	Evaluation of unscanned-mode soft-tissue thermal index for rectangular sources and proposed new indices. <i>Ultrasound in Medicine and Biology</i> , 2004, 30, 965-972.	0.7	21
51	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
52	Estimation of the acoustic impedance of lung versus level of inflation for different species and ages of animals. <i>Journal of the Acoustical Society of America</i> , 2008, 124, 2340-2352.	0.5	19
53	Techniques and evaluation from a cross-platform imaging comparison of quantitative ultrasound parameters in an <i>in vivo</i> rodent fibroadenoma model. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013, 60, 1386-1400.	1.7	19
54	<i>In situ</i> exosimetry: The ovarian ultrasound examination. <i>Ultrasound in Medicine and Biology</i> , 1991, 17, 257-263.	0.7	18

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55	Teratologic evaluation of rats prenatally exposed to pulsed-wave ultrasound. <i>Teratology</i> , 1994, 49, 150-155.	1.8	18
56	Effect of Contrast Agent on the Incidence and Magnitude of Ultrasound-Induced Lung Hemorrhage in Rats. <i>Echocardiography</i> , 2004, 21, 417-422.	0.3	17
57	Vascular lesions and s-thrombomodulin concentrations from auricular arteries of rabbits infused with microbubble contrast agent and exposed to pulsed ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2006, 32, 1781-1791.	0.7	17
58	Accurate diagnosis of nonalcoholic fatty liver disease in human participants via quantitative ultrasound. , 2014, , .		16
59	A Temporal Study of Ultrasound Contrast Agent-Induced Changes in Capillary Density. <i>Journal of Ultrasound in Medicine</i> , 2010, 29, 1267-1275.	0.8	15
60	Ultrasonic backscatter coefficients for weakly scattering, agar spheres in agar phantoms. <i>Journal of the Acoustical Society of America</i> , 2010, 128, 903-908.	0.5	14
61	Targeted Ultrasound-Assisted Cancer-Selective Chemical Labeling and Subsequent Cancer Imaging using Click Chemistry. <i>Angewandte Chemie</i> , 2016, 128, 5542-5546.	1.6	14
62	Deletion of the <i>K1L</i> Gene Results in a Vaccinia Virus That Is Less Pathogenic Due to Muted Innate Immune Responses, yet Still Elicits Protective Immunity. <i>Journal of Virology</i> , 2017, 91, .	1.5	14
63	Hemorrhage near fetal rat bone exposed to pulsed ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2007, 33, 311-317.	0.7	13
64	Transthoracic cardiac ultrasonic stimulation induces a negative chronotropic effect. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2012, 59, 2655-61.	1.7	13
65	Direct Comparison of Quantitative US versus Controlled Attenuation Parameter for Liver Fat Assessment Using MRI Proton Density Fat Fraction as the Reference Standard in Patients Suspected of Having NAFLD. <i>Radiology</i> , 2022, , 211131.	3.6	12
66	Superthreshold Behavior of Ultrasound-Induced Lung Hemorrhage in Adult Rats. <i>Journal of Ultrasound in Medicine</i> , 2005, 24, 339-348.	0.8	11
67	Quantitative Ultrasound Comparison of MAT and 4T1 Mammary Tumors in Mice and Rats Across Multiple Imaging Systems. <i>Journal of Ultrasound in Medicine</i> , 2015, 34, 1373-1383.	0.8	11
68	Superthreshold Behavior of Ultrasound-Induced Lung Hemorrhage in Adult Rats. <i>Journal of Ultrasound in Medicine</i> , 2006, 25, 873-882.	0.8	10
69	Three-dimensional impedance map analysis of rabbit liver. <i>Journal of the Acoustical Society of America</i> , 2011, 130, EL334-EL338.	0.5	10
70	Behavioral effects of prenatal exposure to pulsed-wave ultrasound in unanesthetized rats. , 1996, 54, 65-72.		9
71	Diagnostic ultrasound should be performed without upper intensity limits. <i>Medical Physics</i> , 2001, 28, 1-3.	1.6	9
72	Attenuation coefficient and propagation speed estimates of intercostal tissue as a function of pig age. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2002, 49, 1421-1429.	1.7	9

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73	Validated Sandwich ELISA for the Quantification of von Willebrand Factor in Rabbit Plasma. Biomarker Insights, 2010, 5, BMI.S6051.	1.0	9
74	Ultrasound Contrast Agents Affect the Angiogenic Response. Journal of Ultrasound in Medicine, 2011, 30, 933-941.	0.8	9
75	Analysis of Two Quantitative Ultrasound Approaches. Ultrasonic Imaging, 2018, 40, 84-96.	1.4	9
76	Structure Function Estimated From Histological Tissue Sections. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1296-1305.	1.7	8
77	Estimating concentration of ultrasound contrast agents with backscatter coefficients: Experimental and theoretical aspects. Journal of the Acoustical Society of America, 2012, 131, 2295-2305.	0.5	7
78	Contrast Ultrasound Imaging of the Aorta Alters Vascular Morphology and Circulating von Willebrand Factor in Hypercholesterolemic Rabbits. Journal of Ultrasound in Medicine, 2012, 31, 711-720.	0.8	7
79	Effects of Tomato and Soy Germ on Lipid Bioaccumulation and Atherosclerosis in ApoE ^{0/0} Mice. Journal of Food Science, 2015, 80, H1918-25.	1.5	7
80	Limitations on estimation of effective scatterer diameters. Journal of the Acoustical Society of America, 2017, 142, 3677-3690.	0.5	7
81	The role of the duty factor in ultrasound-mediated cardiac stimulation. Journal of the Acoustical Society of America, 2014, 136, EL231-EL235.	0.5	6
82	Ultrasonic Bioeffects: A View of Experimental Studies. Birth, 1984, 11, 149-157.	1.1	5
83	Excess risk thresholds in ultrasound safety studies: Statistical methods for data on occurrence and size of lesions. Ultrasound in Medicine and Biology, 2004, 30, 1289-1295.	0.7	5
84	Quantitative ultrasound from single cells to biophantoms to tumors. , 2012, 2012, 1118-20.		4
85	The angiogenic response is dependent on ultrasound contrast agent concentration. Vascular Cell, 2012, 4, 10.	0.2	4
86	Contrast Ultrasound Imaging of the Aorta Does Not Affect Progression of Atherosclerosis or Cardiovascular Biomarkers in ApoE ^{0/0} Mice. Journal of Ultrasound in Medicine, 2015, 34, 1115-1122.	0.8	4
87	The Negative Chronotropic Effect in Rat Heart Stimulated by Ultrasonic Pulses: Role of Sex and Age. Journal of Ultrasound in Medicine, 2017, 36, 799-808.	0.8	4
88	A Phantom-Based Assessment of Repeatability and Reproducibility of Transvaginal Quantitative Ultrasound. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 1413-1421.	1.7	4
89	Improved Assessment of Hepatic Steatosis in Humans Using Multi-Parametric Quantitative Ultrasound. , 2019, , .		4
90	Optimization of a Low Magnesium, Cholesterol-Containing Diet for the Development of Atherosclerosis in Rabbits. Journal of Food Research, 2012, 2, 168.	0.1	3

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91	Correspondence: Quantitative analysis of ultrasound contrast agent postexcitation collapse. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 1237-1241.	1.7	3
92	Low fat but not soy protein isolate was an effective intervention to reduce nonalcoholic fatty liver disease progression in C57BL/6J mice: monitored by a novel quantitative ultrasound (QUS) method. Nutrition Research, 2019, 63, 95-105.	1.3	3
93	Ultrasonic Pulse-Echo Subwavelength Defect Detection Mechanism: Experiment and Simulation. Journal of Nondestructive Evaluation, 2003, 22, 103-115.	1.1	2
94	Threshold Estimation and Superthreshold Behavior of Ultrasound-Induced Lung Hemorrhage in Rats: Role of Age Dependency. Ultrasound in Medicine and Biology, 2009, 35, 129-135.	0.7	2
95	Comparison of algorithms for estimating ultrasound attenuation when predicting cervical remodeling in a rat model. , 2011, , .		2
96	Evaluation of the Temporal Stability of Definity Using Double Passive Cavitation Detection. Journal of Ultrasound in Medicine, 2013, 32, 1535-1537.	0.8	2
97	Design of Albumin-Coated Microbubbles Loaded With Polylactide Nanoparticles. Journal of Ultrasound in Medicine, 2015, 34, 1363-1372.	0.8	2
98	Quantitative Ultrasound and the Pancreas: Demonstration of Early Detection Capability. Journal of Ultrasound in Medicine, 2019, 38, 2093-2102.	0.8	2
99	Therapeutic Ultrasound in Cardiovascular Medicine. Journal of Ultrasound in Medicine, 2021, 40, 1061-1076.	0.8	2
100	Ultrasound Scattering From Cell-Pellet Biophantoms and <i>Ex Vivo</i> Tumors Provides Insight Into the Cellular Structure Involved in Scattering. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 637-649.	1.7	2
101	Liver Fat Droplet Dependency on Ultrasound Backscatter Coefficient in Nonalcoholic Fatty Liver. , 2020, , .		2
102	Improved estimation of parameters of the homodyned K distribution. , 2009, , .		1
103	Using passive cavitation detection to observe postexcitation response of ultrasound contrast agents. , 2009, , .		1
104	Algorithm for estimating the attenuation slope from backscattered ultrasonic signals. , 2009, , .		1
105	Dietary Tomato Reduces Castration-Resistant Prostate Cancer Burden in the TRAMP Model. FASEB Journal, 2016, 30, 147.1.	0.2	1
106	Technique to compensate for unknown laminate transmission loss in phantom attenuation measurements. , 2020, , .		1
107	Analysis of human fibroadenomas using three-dimensional impedance maps. , 2009, , .		0
108	Estimating scatterer properties in rat fibroadenomas using various mathematical form factors. , 2009, , .		0

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109	Reducing the effects of specular scatterers on QUS imaging using the generalized spectrum. , 2010, , .		0
110	Contrast Ultrasound Imaging Does Not Affect Heat Shock Protein 70 Expression in Cholesterolâ€Fed Rabbit Aorta. Journal of Ultrasound in Medicine, 2015, 34, 1209-1216.	0.8	0
111	Comparison of quantitative ultrasound parameters for fat content liver detection and monitoring. , 2017, , .		0
112	Comparison of quantitative ultrasound parameters for fat content liver detection and monitoring. , 2017, , .		0
113	Quantitative ultrasound and the pancreas: Demonstration of early detection capability. , 2017, , .		0
114	Quantitative ultrasound and the pancreas: Demonstration of early detection capability. , 2017, , .		0
115	Reasons Why Pregnant Women Participate in Ultrasound Research Involving Transvaginal Scans. Journal of Ultrasound in Medicine, 2020, 39, 1581-1587.	0.8	0
116	Positive chronotropic effect caused by transthoracic ultrasound in heart of rats. JASA Express Letters, 2021, 1, 082001.	0.5	0
117	Dietary Magnesium Intake, Inflammation, and Atherosclerotic Plaque Development in Rabbits. FASEB Journal, 2007, 21, A359.	0.2	0
118	Contrast ultrasound imaging does not affect Hsp70 expression in cholesterolâ€fed rabbit aorta. FASEB Journal, 2012, 26, 637.10.	0.2	0
119	Contrast ultrasound imaging of the aorta does not affect progression of atherosclerosis in ApoEâˆ™/âˆ™ mice. FASEB Journal, 2013, 27, 1073.1.	0.2	0
120	Ultrasound imaging to monitor prostate tumor progression and metastases in TRAMP mice. FASEB Journal, 2013, 27, 638.5.	0.2	0