

Wayne Kreider

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

1,487
citations

361045

20
h-index

315357

38
g-index

85
all docs

85
docs citations

85
times ranked

1095
citing authors

#	ARTICLE	IF	CITATIONS
1	Blood Vessel Deformations on Microsecond Time Scales by Ultrasonic Cavitation. <i>Physical Review Letters</i> , 2011, 106, 034301.	2.9	250
2	Characterization of a multi-element clinical HIFU system using acoustic holography and nonlinear modeling. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013, 60, 1683-1698.	1.7	114
3	Fragmentation of Urinary Calculi In Vitro by Burst Wave Lithotripsy. <i>Journal of Urology</i> , 2015, 193, 338-344.	0.2	97
4	Title is missing!. <i>Nonlinear Dynamics</i> , 1998, 17, 95-117.	2.7	95
5	Observations of Translation and Jetting of Ultrasound-Activated Microbubbles in Mesenteric Microvessels. <i>Ultrasound in Medicine and Biology</i> , 2011, 37, 2139-2148.	0.7	86
6	Acoustic holography as a metrological tool for characterizing medical ultrasound sources and fields. <i>Journal of the Acoustical Society of America</i> , 2015, 138, 1515-1532.	0.5	82
7	Passive Cavitation Detection during Pulsed HIFU Exposures of Ex Vivo Tissues and In Vivo Mouse Pancreatic Tumors. <i>Ultrasound in Medicine and Biology</i> , 2014, 40, 1523-1534.	0.7	72
8	Design of HIFU Transducers for Generating Specified Nonlinear Ultrasound Fields. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2017, 64, 374-390.	1.7	67
9	A Prototype Therapy System for Transcutaneous Application of Boiling Histotripsy. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2017, 64, 1542-1557.	1.7	55
10	Cavitation-induced damage of soft materials by focused ultrasound bursts: A fracture-based bubble dynamics model. <i>Journal of the Acoustical Society of America</i> , 2016, 140, 1374-1386.	0.5	42
11	Dependence of Boiling Histotripsy Treatment Efficiency on HIFU Frequency and Focal Pressure Levels. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 1975-1985.	0.7	42
12	A reduced-order, single-bubble cavitation model with applications to therapeutic ultrasound. <i>Journal of the Acoustical Society of America</i> , 2011, 130, 3511-3530.	0.5	35
13	Pilot in vivo studies on transcutaneous boiling histotripsy in porcine liver and kidney. <i>Scientific Reports</i> , 2019, 9, 20176.	1.6	32
14	Evaluation of Renal Stone Comminution and Injury by Burst Wave Lithotripsy in a Pig Model. <i>Journal of Endourology</i> , 2019, 33, 787-792.	1.1	29
15	Detection and Evaluation of Renal Injury in Burst Wave Lithotripsy Using Ultrasound and Magnetic Resonance Imaging. <i>Journal of Endourology</i> , 2017, 31, 786-792.	1.1	28
16	Design of HIFU Transducers to Generate Specific Nonlinear Ultrasound Fields. <i>Physics Procedia</i> , 2016, 87, 132-138.	1.2	23
17	The role of trapped bubbles in kidney stone detection with the color Doppler ultrasound twinkling artifact. <i>Physics in Medicine and Biology</i> , 2018, 63, 025011.	1.6	23
18	Field Characterization and Compensation of Vibrational Nonuniformity for a 256-Element Focused Ultrasound Phased Array. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2018, 65, 1618-1630.	1.7	23

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19	“HIFU Beam: A Simulator for Predicting Axially Symmetric Nonlinear Acoustic Fields Generated by Focused Transducers in a Layered Medium. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2837-2852.	1.7	23
20	Mechanical decellularization of tissue volumes using boiling histotripsy. Physics in Medicine and Biology, 2018, 63, 235023.	1.6	22
21	A Prototype Therapy System for Boiling Histotripsy in Abdominal Targets Based on a 256-Element Spiral Array. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1496-1510.	1.7	22
22	Energy shielding by cavitation bubble clouds in burst wave lithotripsy. Journal of the Acoustical Society of America, 2018, 144, 2952-2961.	0.5	21
23	Dependence of inertial cavitation induced by high intensity focused ultrasound on transducer <i>F</i> -number and nonlinear waveform distortion. Journal of the Acoustical Society of America, 2018, 144, 1160-1169.	0.5	20
24	Observations of the collapses and rebounds of millimeter-sized lithotripsy bubbles. Journal of the Acoustical Society of America, 2011, 130, 3531-3540.	0.5	18
25	Modeling and experimental analysis of acoustic cavitation bubbles for Burst Wave Lithotripsy. Journal of Physics: Conference Series, 2015, 656, 012027.	0.3	15
26	Shock formation and nonlinear saturation effects in the ultrasound field of a diagnostic curvilinear probe. Journal of the Acoustical Society of America, 2017, 141, 2327-2337.	0.5	12
27	Design and Characterization of an Ultrasound Transducer for Combined Histotripsy-Thrombolytic Therapy. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 156-165.	1.7	11
28	Inertial Cavitation Behaviors Induced by Nonlinear Focused Ultrasound Pulses. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2884-2895.	1.7	10
29	Rectified growth of histotripsy bubbles. Proceedings of Meetings on Acoustics, 2013, 19, .	0.3	9
30	Ultrasound-Induced Bubble Clusters in Tissue-Mimicking Agar Phantoms. Ultrasound in Medicine and Biology, 2017, 43, 2318-2328.	0.7	8
31	Update on clinical trials of kidney stone repositioning and preclinical results of stone breaking with one system. Proceedings of Meetings on Acoustics, 2018, 35, .	0.3	8
32	Factors Affecting Tissue Cavitation during Burst Wave Lithotripsy. Ultrasound in Medicine and Biology, 2021, 47, 2286-2295.	0.7	8
33	Beamwidth measurement of individual lithotripter shock waves. Journal of the Acoustical Society of America, 2009, 125, 1240-1245.	0.5	7
34	The Impact of Dust and Confinement on Fragmentation of Kidney Stones by Shockwave Lithotripsy in Tissue Phantoms. Journal of Endourology, 2019, 33, 400-406.	1.1	7
35	Characterization of nonlinear ultrasound fields of 2D therapeutic arrays. , 2012, 2012, 1-4.		6
36	Bilayer aberration-inducing gel phantom for high intensity focused ultrasound applications. Journal of the Acoustical Society of America, 2020, 148, 3569-3580.	0.5	6

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37	Improved hydrophone calibration by combining acoustic holography with the radiation force balance measurements. Proceedings of Meetings on Acoustics, 2013, , .	0.3	5
38	Development of Tough Hydrogel Phantoms to Mimic Fibrous Tissue for Focused Ultrasound Therapies. Ultrasound in Medicine and Biology, 2022, 48, 1762-1777.	0.7	5
39	Impact of stone type on cavitation in burst wave lithotripsy. Proceedings of Meetings on Acoustics, 2018, 35, .	0.3	4
40	Potential Temperature Limitations of Bubble-Enhanced Heating during HIFU. AIP Conference Proceedings, 2010, , .	0.3	3
41	An in vivo demonstration of efficacy and acute safety of burst wave lithotripsy using a porcine model. Proceedings of Meetings on Acoustics, 2018, 35, .	0.3	3
42	Improving Burst Wave Lithotripsy Effectiveness for Small Stones and Fragments by Increasing Frequency: Theoretical Modeling and <i>Ex Vivo</i> Study. Journal of Endourology, 2022, 36, 996-1003.	1.1	3
43	An Ultrasonic Caliper Device for Measuring Acoustic Nonlinearity. Physics Procedia, 2016, 87, 93-98.	1.2	2
44	Modeling and numerical simulation of the bubble cloud dynamics in an ultrasound field for burst wave lithotripsy. Proceedings of Meetings on Acoustics, 2018, 35, .	0.3	2
45	Holographic extraction of plane waves from an ultrasound beam for acoustic characterization of an absorbing layer of finite dimensions. Journal of the Acoustical Society of America, 2021, 149, 386-404.	0.5	2
46	Nonlinear response of a buckled beam to a harmonic excitation. , 1997, , .		1
47	The dynamics of histotripsy bubbles. AIP Conference Proceedings, 2011, , .	0.3	1
48	PD37-01 EVALUATION OF STONE COMMINUTION AND TISSUE INJURY IN VIVO USING A NOVEL METHOD OF LITHOTRIPSY WITHOUT SHOCK WAVES. Journal of Urology, 2014, 191, .	0.2	1
49	PD42-02 A PRECLINICAL IMAGE-GUIDED THERAPY SYSTEM FOR BURST WAVE LITHOTRIPSY. Journal of Urology, 2015, 193, .	0.2	1
50	Non-Spherical Collapse of an Air Bubble Subjected to a Lithotripter Pulse. , 2007, , .		1
51	Modeling of Bubble Oscillations Induced by a Lithotripter Pulse. AIP Conference Proceedings, 2006, , .	0.3	0
52	Potential mechanism for vessel invagination caused by bubble oscillations. , 2009, , .		0
53	Experimental study of acoustic radiation force of an ultrasound beam on absorbing and scattering objects. AIP Conference Proceedings, 2015, 1685, .	0.3	0
54	Acoustic nonlinearity as a mechanism for liquid drop explosions in drop-chain fountains generated by a focused ultrasound beam. , 2016, 2016, .		0

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55	PD19-11 PILOT ASSESSMENT OF TRANSCUTANEOUS BOILING HISTOTRIPTY ABLATION OF THE KIDNEY IN THE PORCINE MODEL. Journal of Urology, 2016, 195, .	0.2	0
56	MP54-13 DETECTION AND ASSESSMENT OF HEMORRHAGIC KIDNEY INJURY CAUSED BY BURST WAVE LITHOTRIPTY USING ULTRASOUND AND MAGNETIC RESONANCE IMAGING. Journal of Urology, 2016, 195, .	0.2	0
57	MP62-07 IDENTIFICATION OF FACTORS AFFECTING IN VITRO LITHOTRIPTY EXPERIMENTS TOWARDS AN IMPROVED MODEL. Journal of Urology, 2017, 197, .	0.2	0
58	Notice of Removal: Design and characterization of a 2-dimensional focused 1.5-MHz ultrasound array with a compact spiral arrangement of 256 circular elements. , 2017, , .		0
59	Design and characterization of a research phantom for shock-wave enhanced irradiations in high intensity focused ultrasound therapy. , 2017, , .		0