

# Wayne Kreider

## List of Publications by Year in descending order

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Version: 2024-02-01

59  
papers

1,487  
citations

361413

20  
h-index

315739

38  
g-index

85  
all docs

85  
docs citations

85  
times ranked

1095  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design and Characterization of an Ultrasound Transducer for Combined Histotripsy-Thrombolytic Therapy. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 156-165.	3.0	11
2	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.	2.1	3
3	Development of Tough Hydrogel Phantoms to Mimic Fibrous Tissue for Focused Ultrasound Therapies. Ultrasound in Medicine and Biology, 2022, 48, 1762-1777.	1.5	5
4	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.	1.1	2
5	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.	3.0	22
6	Factors Affecting Tissue Cavitation during Burst Wave Lithotripsy. Ultrasound in Medicine and Biology, 2021, 47, 2286-2295.	1.5	8
7	Inertial Cavitation Behaviors Induced by Nonlinear Focused Ultrasound Pulses. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2884-2895.	3.0	10
8	“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.	3.0	23
9	Bilayer aberration-inducing gel phantom for high intensity focused ultrasound applications. Journal of the Acoustical Society of America, 2020, 148, 3569-3580.	1.1	6
10	Evaluation of Renal Stone Comminution and Injury by Burst Wave Lithotripsy in a Pig Model. Journal of Endourology, 2019, 33, 787-792.	2.1	29
11	Pilot in vivo studies on transcutaneous boiling histotripsy in porcine liver and kidney. Scientific Reports, 2019, 9, 20176.	3.3	32
12	The Impact of Dust and Confinement on Fragmentation of Kidney Stones by Shockwave Lithotripsy in Tissue Phantoms. Journal of Endourology, 2019, 33, 400-406.	2.1	7
13	The role of trapped bubbles in kidney stone detection with the color Doppler ultrasound twinkling artifact. Physics in Medicine and Biology, 2018, 63, 025011.	3.0	23
14	Impact of stone type on cavitation in burst wave lithotripsy. Proceedings of Meetings on Acoustics, 2018, 35, .	0.3	4
15	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
16	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
17	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
18	Energy shielding by cavitation bubble clouds in burst wave lithotripsy. Journal of the Acoustical Society of America, 2018, 144, 2952-2961.	1.1	21

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19	Mechanical decellularization of tissue volumes using boiling histotripsy. <i>Physics in Medicine and Biology</i> , 2018, 63, 235023.	3.0	22
20	Dependence of inertial cavitation induced by high intensity focused ultrasound on transducer <i>F</i>-number and nonlinear waveform distortion. <i>Journal of the Acoustical Society of America</i> , 2018, 144, 1160-1169.	1.1	20
21	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.	3.0	23
22	Shock formation and nonlinear saturation effects in the ultrasound field of a diagnostic curvilinear probe. <i>Journal of the Acoustical Society of America</i> , 2017, 141, 2327-2337.	1.1	12
23	A Prototype Therapy System for Transcutaneous Application of Boiling Histotripsy. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2017, 64, 1542-1557.	3.0	55
24	Ultrasound-Induced Bubble Clusters in Tissue-Mimicking Agar Phantoms. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 2318-2328.	1.5	8
25	MP62-07 IDENTIFICATION OF FACTORS AFFECTING IN VITRO LITHOTRIPSY EXPERIMENTS TOWARDS AN IMPROVED MODEL. <i>Journal of Urology</i> , 2017, 197, .	0.4	0
26	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.	2.1	28
27	Dependence of Boiling Histotripsy Treatment Efficiency on HIFU Frequency and Focal Pressure Levels. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 1975-1985.	1.5	42
28	Design of HIFU Transducers for Generating Specified Nonlinear Ultrasound Fields. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2017, 64, 374-390.	3.0	67
29	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
30	Design and characterization of a research phantom for shock-wave enhanced irradiations in high intensity focused ultrasound therapy. , 2017, , .		0
31	Design of HIFU Transducers to Generate Specific Nonlinear Ultrasound Fields. <i>Physics Procedia</i> , 2016, 87, 132-138.	1.2	23
32	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.	1.1	42
33	An Ultrasonic Caliper Device for Measuring Acoustic Nonlinearity. <i>Physics Procedia</i> , 2016, 87, 93-98.	1.2	2
34	Acoustic nonlinearity as a mechanism for liquid drop explosions in drop-chain fountains generated by a focused ultrasound beam. , 2016, 2016, .		0
35	PD19-11 PILOT ASSESSMENT OF TRANSCUTANEOUS BOILING HISTOTRIPSY ABLATION OF THE KIDNEY IN THE PORCINE MODEL. <i>Journal of Urology</i> , 2016, 195, .	0.4	0
36	MP54-13 DETECTION AND ASSESSMENT OF HEMORRHAGIC KIDNEY INJURY CAUSED BY BURST WAVE LITHOTRIPSY USING ULTRASOUND AND MAGNETIC RESONANCE IMAGING. <i>Journal of Urology</i> , 2016, 195, .	0.4	0

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37	PD42-02 A PRECLINICAL IMAGE-GUIDED THERAPY SYSTEM FOR BURST WAVE LITHOTRIPSY. Journal of Urology, 2015, 193, .	0.4	1
38	Experimental study of acoustic radiation force of an ultrasound beam on absorbing and scattering objects. AIP Conference Proceedings, 2015, 1685, .	0.4	0
39	Acoustic holography as a metrological tool for characterizing medical ultrasound sources and fields. Journal of the Acoustical Society of America, 2015, 138, 1515-1532.	1.1	82
40	Modeling and experimental analysis of acoustic cavitation bubbles for Burst Wave Lithotripsy. Journal of Physics: Conference Series, 2015, 656, 012027.	0.4	15
41	Fragmentation of Urinary Calculi InÂVitro by Burst Wave Lithotripsy. Journal of Urology, 2015, 193, 338-344.	0.4	97
42	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, .	0.4	1
43	Passive Cavitation Detection during Pulsed HIFU Exposures of ExÂVivo Tissues and InÂVivo Mouse Pancreatic Tumors. Ultrasound in Medicine and Biology, 2014, 40, 1523-1534.	1.5	72
44	Characterization of a multi-element clinical HIFU system using acoustic holography and nonlinear modeling. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 1683-1698.	3.0	114
45	Rectified growth of histotripsy bubbles. Proceedings of Meetings on Acoustics, 2013, 19, .	0.3	9
46	Improved hydrophone calibration by combining acoustic holography with the radiation force balance measurements. Proceedings of Meetings on Acoustics, 2013, , .	0.3	5
47	Characterization of nonlinear ultrasound fields of 2D therapeutic arrays. , 2012, 2012, 1-4.		6
48	Observations of Translation and Jetting of Ultrasound-Activated Microbubbles in Mesenteric Microvessels. Ultrasound in Medicine and Biology, 2011, 37, 2139-2148.	1.5	86
49	The dynamics of histotripsy bubbles. AIP Conference Proceedings, 2011, , .	0.4	1
50	Observations of the collapses and rebounds of millimeter-sized lithotripsy bubbles. Journal of the Acoustical Society of America, 2011, 130, 3531-3540.	1.1	18
51	Blood Vessel Deformations on Microsecond Time Scales by Ultrasonic Cavitation. Physical Review Letters, 2011, 106, 034301.	7.8	250
52	A reduced-order, single-bubble cavitation model with applications to therapeutic ultrasound. Journal of the Acoustical Society of America, 2011, 130, 3511-3530.	1.1	35
53	Potential Temperature Limitations of Bubble-Enhanced Heating during HIFU. AIP Conference Proceedings, 2010, , .	0.4	3
54	Beamwidth measurement of individual lithotripter shock waves. Journal of the Acoustical Society of America, 2009, 125, 1240-1245.	1.1	7

#	ARTICLE	IF	CITATIONS
55	Potential mechanism for vessel invagination caused by bubble oscillations. , 2009, , .		0
56	Non-Spherical Collapse of an Air Bubble Subjected to a Lithotripter Pulse. , 2007, , .		1
57	Modeling of Bubble Oscillations Induced by a Lithotripter Pulse. AIP Conference Proceedings, 2006, , .	0.4	0
58	Title is missing!. Nonlinear Dynamics, 1998, 17, 95-117.	5.2	95
59	Nonlinear response of a buckled beam to a harmonic excitation. , 1997, , .		1