

# Joel Mobley

## List of Publications by Year in descending order

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65  
papers

1,194  
citations

430442

18  
h-index

377514

34  
g-index

70  
all docs

70  
docs citations

70  
times ranked

888  
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterization of sphere-plane contact loss nonlinearity inside a cylindrical container using nonlinear ultrasound resonance spectroscopy. Journal of the Acoustical Society of America, 2021, 150, 3011-3022.	0.5	2
2	Vibrational metrics for the evaluation of internal conditions in a scaled nuclear dry storage cask. Applied Acoustics, 2020, 168, 107433.	1.7	1
3	Broadband wave packet dynamics of minimally diffractive ultrasonic fields from axicon and stepped fraxicon lenses. Journal of the Acoustical Society of America, 2019, 146, 103-108.	0.5	5
4	Vibrational modes for the internal characterization of a full-scale Transnuclear-32 dry storage cask for spent nuclear fuel assemblies. Journal of Sound and Vibration, 2019, 460, 114881.	2.1	5
5	Ultrasonic Extraction and Manipulation of Droplets from a Liquid-Liquid Interface with Near-Field Acoustic Tweezers. Physical Review Applied, 2019, 12, .	1.5	17
6	Variables governing the initial stages of the synergisms of ultrasonic treatment of biochar in water with dissolved CO <sub>2</sub> . Fuel, 2019, 235, 1131-1145.	3.4	21
7	Spatial filters suppress ripple artifacts in the computation of acoustic fields with the angular spectrum method. Journal of the Acoustical Society of America, 2018, 144, 2947-2951.	0.5	1
8	Development of a Tissue-Mimicking Phantom of the Brain for Ultrasonic Studies. Ultrasound in Medicine and Biology, 2018, 44, 2813-2820.	0.7	8
9	Vibrometric characterization of an intact and unloaded scaled model TN-32 dry storage cask for spent nuclear fuel. Proceedings of Meetings on Acoustics, 2017, , .	0.3	1
10	Focal zone characteristics of stepped Fresnel and axicon acoustic lenses. Proceedings of Meetings on Acoustics, 2017, , .	0.3	2
11	Vibrometric characterization of an unloaded full-scale TN-32 dry storage cask for spent nuclear fuel. Proceedings of Meetings on Acoustics, 2017, , .	0.3	1
12	Thermal and spectral behavior of ultrasonically generated shear waves in a viscoelastic micellar fluid. Proceedings of Meetings on Acoustics, 2017, , .	0.3	1
13	Development of tissue-mimicking phantom of the brain for ultrasonic studies. Journal of the Acoustical Society of America, 2017, 142, 2564-2564.	0.5	1
14	Propagation of pulsed ultrasonic fields in a band gap of a two dimensional phononic crystal. Proceedings of Meetings on Acoustics, 2015, , .	0.3	0
15	The effect of static pressure on the strength of inertial cavitation events. Journal of the Acoustical Society of America, 2012, 132, 2286-2291.	0.5	19
16	The effect of static pressure on the inertial cavitation threshold. Journal of the Acoustical Society of America, 2012, 132, 728-737.	0.5	32
17	Suppression of an acoustic mode by an elastic mode of a liquid-filled spherical shell resonator. Journal of the Acoustical Society of America, 2011, 129, 597-603.	0.5	5
18	Inertial cavitation threshold dependence on static pressures. Proceedings of Meetings on Acoustics, 2010, , .	0.3	1

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19	Simplified expressions of the subtracted Kramers-Kronig relations using the expanded forms applied to ultrasonic power-law systems. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 166-173.	0.5	7
20	Determination of power-law attenuation coefficient and dispersion spectra in multi-wall carbon nanotube composites using Kramers-Kronig relations. <i>Journal of the Acoustical Society of America</i> , 2009, 126, 92-97.	0.5	2
21	Intensified biochip system using chemiluminescence for the detection of <i>Bacillus globigii</i> spores. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 1655-1660.	1.9	11
22	Ultrasonic Properties of a Suspension of Microspheres Supporting Negative Group Velocities. <i>Physical Review Letters</i> , 2007, 99, 124301.	2.9	4
23	The time-domain signature of negative acoustic group velocity in microsphere suspensions. <i>Journal of the Acoustical Society of America</i> , 2007, 122, EL8-EL14.	0.5	8
24	Finite-bandwidth Kramers-Kronig relations for acoustic group velocity and attenuation derivative applied to encapsulated microbubble suspensions. <i>Journal of the Acoustical Society of America</i> , 2007, 121, 1916-1923.	0.5	5
25	Portable Raman device for detection of chemical and biological warfare agents. , 2005, 5692, 330.		1
26	Causal determination of acoustic group velocity and frequency derivative of attenuation with finite-bandwidth Kramers-Kronig relations. <i>Physical Review E</i> , 2005, 72, 016604.	0.8	16
27	Causality-imposed (Kramers-Kronig) relationships between attenuation and dispersion. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2005, 52, 822-823.	1.7	152
28	Single-board computer based control system for a portable Raman device with integrated chemical identification. <i>Review of Scientific Instruments</i> , 2004, 75, 2016-2023.	0.6	10
29	Miniature biochip system for bioenvironmental applications. , 2004, 5586, 26.		0
30	Portable Raman integrated tunable sensor (RAMiTs) for environmental field monitoring. , 2004, , .		4
31	Differential forms of the Kramers-Kronig dispersion relations. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2003, 50, 68-76.	1.7	73
32	Real-time detection of PAH mixtures in the vapor phase at high temperatures. <i>Journal of Analytical and Applied Pyrolysis</i> , 2003, 66, 145-154.	2.6	13
33	Detection of bacterial pathogen DNA using an integrated complementary metal oxide semiconductor microchip system with capillary array electrophoresis. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2003, 783, 501-508.	1.2	29
34	A Miniature Biochip System for Detection of Aerosolized <i>Bacillus globigii</i> Spores. <i>Analytical Chemistry</i> , 2003, 75, 275-280.	3.2	92
35	Finite-bandwidth effects on the causal prediction of ultrasonic attenuation of the power-law form. <i>Journal of the Acoustical Society of America</i> , 2003, 114, 2782.	0.5	20
36	Biochip using a biofluidic system for detection of <i>E. coli</i> and other pathogens. , 2003, , .		0

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37	Photoacoustic method for the simultaneous acquisition of optical and ultrasonic spectra. <i>Acoustics Research Letters Online: ARLO</i> , 2003, 4, 89-94.	0.7	5
38	Crossed-beam two-photon readout system for three-dimensional radiation dosimeters. <i>Review of Scientific Instruments</i> , 2002, 73, 4214-4217.	0.6	2
39	Radiation Dosimetry Using Three-dimensional Optical Random Access Memories. <i>Radiation Protection Dosimetry</i> , 2002, 101, 17-22.	0.4	1
40	<title>Transcranial ultrasound for brain injury monitoring: initial clinical studies</title>. , 2002, 4615, 53.		0
41	<title>Development of a portable Raman spectrometer for medical diagnostics</title>. , 2002, , .		2
42	<title>Field-portable AOTF-based monitor technology for environmental sensing</title>. , 2002, 4576, 244.		0
43	Field-portable AOTF-based monitor technology for environmental sensing. , 2002, , .		0
44	Integrated circuit microchip system with multiplex capillary electrophoresis module for DNA analysis. <i>Analytica Chimica Acta</i> , 2002, 466, 187-192.	2.6	8
45	<title>Opto-ultrasonic system for generation of ultrasound and optical detection</title>. , 2002, , .		0
46	Vapor detection of polyaromatic compounds using laser-induced fluorescence. , 2001, , .		1
47	<title>Ultrasonic diffraction in the design of photoacoustic probes</title>. , 2001, 4254, 151.		0
48	Detection of neutrons using a novel three-dimensional optical random access memory technology (3D-ORAM). , 2001, 4199, 165.		1
49	<title>Ultrasonic scattering and transmission properties of mammalian white matter in the detection of brain injury</title>. , 2001, , .		0
50	Laser-induced fluorescence studies of polycyclic aromatic hydrocarbons (PAH) vapors at high temperatures. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2001, 57, 1377-1384.	2.0	27
51	High-temperature vapor detection of polycyclic aromatic hydrocarbon fluorescence. <i>Fuel</i> , 2001, 80, 1819-1824.	3.4	12
52	Kramersâ€Kronig relations applied to finite bandwidth data from suspensions of encapsulated microbubbles. <i>Journal of the Acoustical Society of America</i> , 2000, 108, 2091-2106.	0.5	47
53	Development of a compact, handheld Raman instrument with no moving parts for use in field analysis. <i>Review of Scientific Instruments</i> , 2000, 71, 1602-1607.	0.6	45
54	Antibody-based biosensor for breast cancer with ultrasonic regeneration. <i>Journal of Biomedical Optics</i> , 2000, 5, 350.	1.4	17

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55	Cyclic Variation of Integrated Backscatter: Dependence of Time Delay on the Echocardiographic View Used and the Myocardial Segment Analyzed. <i>Journal of the American Society of Echocardiography</i> , 2000, 13, 9-17.	1.2	54
56	On the applicability of Kramers' power law relations for ultrasonic attenuation obeying a frequency power law. <i>Journal of the Acoustical Society of America</i> , 2000, 108, 556-563.	0.5	145
57	Three-Dimensional Optical Random Access Memory Materials for Use as Radiation Dosimeters. <i>Analytical Chemistry</i> , 2000, 72, 5612-5617.	3.2	12
58	Measurements and predictions of the phase velocity and attenuation coefficient in suspensions of elastic microspheres. <i>Journal of the Acoustical Society of America</i> , 1999, 106, 652-659.	0.5	51
59	Dependence of "apparent" magnitude on the time delay of cyclic variation of myocardial backscatter. <i>Ultrasound in Medicine and Biology</i> , 1999, 25, 759-762.	0.7	19
60	CLINICAL IMPLEMENTATION OF ULTRASONIC QUANTITATIVE NONDESTRUCTIVE EVALUATION OF THE HEART: A REVIEW. <i>Nondestructive Testing and Evaluation</i> , 1998, 14, 217-235.	1.1	0
61	Broadband measurements of phase velocity in Alburnex® suspensions. <i>Journal of the Acoustical Society of America</i> , 1998, 103, 2145-2153.	0.5	59
62	<title>Evaluation of ultrasound techniques for brain injury detection</title>. , 1998, 3253, 101.		0
63	Broadband through-transmission signal loss measurements of Alburnex® suspensions at concentrations approaching in vivo doses. <i>Journal of the Acoustical Society of America</i> , 1997, 101, 1155-1161.	0.5	64
64	Broadband measurements of the attenuation coefficient and backscatter coefficient for suspensions: A potential calibration tool. <i>Journal of the Acoustical Society of America</i> , 1997, 101, 1162-1171.	0.5	37
65	Backscatter from Specific Regions of Human Hearts Obtained from Standard Echocardiography Views. , 1996, , 1335-1340.		2