

Xiaozhou Liu

List of Publications by Year in descending order

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63
papers

768
citations

567281

15
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580821

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63
all docs

63
docs citations

63
times ranked

568
citing authors

#	ARTICLE	IF	CITATIONS
1	Effective impedance boundary optimization and its contribution to dipole radiation and radiation pattern control. <i>Nature Communications</i> , 2014, 5, 3188.	12.8	86
2	Manipulation of acoustic wavefront by gradient metasurface based on Helmholtz Resonators. <i>Scientific Reports</i> , 2017, 7, 10587.	3.3	58
3	Realization of acoustic wave directivity at low frequencies with a subwavelength Mie resonant structure. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	51
4	Acoustic microstreaming around an isolated encapsulated microbubble. <i>Journal of the Acoustical Society of America</i> , 2009, 125, 1319-1330.	1.1	44
5	Three-Dimensional Soundproof Acoustic Metacage. <i>Physical Review Letters</i> , 2021, 127, 084301.	7.8	41
6	Nonlinear absorption in biological tissue for high intensity focused ultrasound. <i>Ultrasonics</i> , 2006, 44, e27-e30.	3.9	34
7	Broadband manipulation of refracted wavefronts by gradient acoustic metasurface with V-shape structure. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	28
8	Noninvasive Estimation of Temperature Elevations in Biological Tissues Using Acoustic Nonlinearity Parameter Imaging. <i>Ultrasound in Medicine and Biology</i> , 2008, 34, 414-424.	1.5	25
9	Mimicking surface plasmons in acoustics at low frequency. <i>Physical Review B</i> , 2015, 92, .	3.2	25
10	Wavefront manipulation based on transmissive acoustic metasurface with membrane-type hybrid structure. <i>Scientific Reports</i> , 2018, 8, 14171.	3.3	25
11	Study of axial acoustic radiation force on a sphere in a Gaussian quasi-standing field. <i>Wave Motion</i> , 2016, 62, 63-74.	2.0	24
12	Acoustic radiation force on a double-layer microsphere by a Gaussian focused beam. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	21
13	Acoustic radiation force on a sphere in a progressive and standing zero-order quasi-Bessel-Gauss beam. <i>Ultrasonics</i> , 2017, 76, 1-9.	3.9	20
14	Non-reciprocal wave propagation in one-dimensional nonlinear periodic structures. <i>AIP Advances</i> , 2018, 8, 015113.	1.3	19
15	Broadband underwater acoustic carpet cloak based on pentamode materials under normal incidence. <i>AIP Advances</i> , 2018, 8, .	1.3	19
16	Theoretical and Experimental Study on Temperature Elevation behind Ribs Caused by Weakly Focused Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2010, 36, 1704-1712.	1.5	15
17	Acoustic Multifunctional Logic Gates and Amplifier Based on Passive Parity-Time Symmetry. <i>Physical Review Applied</i> , 2020, 13, .	3.8	15
18	Bidirectional acoustic negative refraction based on a pair of metasurfaces with both local and global PT-symmetries. <i>Scientific Reports</i> , 2020, 10, 10794.	3.3	13

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19	Ventilative meta-window with broadband low-frequency acoustic insulation. <i>Journal of Applied Physics</i> , 2021, 129, .	2.5	13
20	The study of wood knots using acoustic nondestructive testing methods. <i>Ultrasonics</i> , 2018, 88, 43-50.	3.9	12
21	Acoustic radiation force and motion of a free cylinder in a viscous fluid with a boundary defined by a plane wave incident at an arbitrary angle. <i>Journal of Applied Physics</i> , 2020, 128, .	2.5	11
22	Acoustic radiation force on a free elastic sphere in a viscous fluid: Theory and experiments. <i>Physics of Fluids</i> , 2021, 33, .	4.0	11
23	Realization of manipulating acoustic surface waves radiation direction with rectangular-groove structure. <i>AIP Advances</i> , 2017, 7, .	1.3	10
24	Theoretical study of acoustic radiation force and torque on a pair of polymer cylindrical particles in two Airy beams fields. <i>Physics of Fluids</i> , 2019, 31, .	4.0	10
25	Nonlinear nonclassical acoustic method for detecting the location of cracks. <i>Journal of Applied Physics</i> , 2012, 112, 054906.	2.5	9
26	Far-field particle manipulation scheme based on X wave. <i>Physics of Fluids</i> , 2020, 32, .	4.0	9
27	Location of micro-cracks in plates using time reversed nonlinear Lamb waves. <i>Chinese Physics B</i> , 2020, 29, 054301.	1.4	9
28	The transmission of finite amplitude sound beam in multi-layered biological media. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 362, 50-56.	2.1	8
29	A nonlinear acoustic metamaterial: Realization of a backwards-traveling second-harmonic sound wave. <i>Journal of the Acoustical Society of America</i> , 2016, 139, 3373-3385.	1.1	8
30	Acoustic radiation force on an elastic cylinder in a Gaussian beam near an impedance boundary. <i>Wave Motion</i> , 2020, 93, 102478.	2.0	8
31	Non-diffractive acoustic beams produce negative radiation force in certain regions. <i>AIP Advances</i> , 2021, 11, .	1.3	8
32	Relationship between the temperature and the acoustic nonlinearity parameter in biological tissues. <i>Science Bulletin</i> , 2004, 49, 2360-2363.	1.7	6
33	Simulation of multi-cracks in solids using nonlinear elastic wave spectroscopy with a time-reversal process. <i>Wave Motion</i> , 2014, 51, 146-156.	2.0	6
34	Calculation of acoustical radiation force on microsphere by spherically-focused source. <i>Ultrasonics</i> , 2014, 54, 1977-1983.	3.9	6
35	A panel acoustic energy harvester based on the integration of acoustic metasurface and Helmholtz resonator. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	6
36	Realizing a finite array of dipole sources with high acoustic transmission directivity at low frequency. <i>Journal of the Acoustical Society of America</i> , 2017, 141, 1936-1939.	1.1	5

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37	Improving directional radiation quality based on a gradient amplitude acoustic leaky wave antenna. <i>New Journal of Physics</i> , 2019, 21, 103023.	2.9	5
38	Acoustic coding metamaterial based on non-uniform Mie resonators. <i>Applied Physics Letters</i> , 2022, 120, 163501.	3.3	5
39	A non common-node chaotic Colpitts oscillator with negative resistance enhancement. <i>IEICE Electronics Express</i> , 2014, 11, 20140902-20140902.	0.8	4
40	A compact and customizable operation frequency filter for broadband applications. <i>IEICE Electronics Express</i> , 2015, 12, 20150576-20150576.	0.8	4
41	Experimental study of acoustical memory in lithium niobate. <i>Physical Review E</i> , 2008, 78, 016602.	2.1	3
42	A study of the acoustical radiation force considering attenuation. <i>Science China: Physics, Mechanics and Astronomy</i> , 2013, 56, 1237-1245.	5.1	3
43	Interactions of collinear acoustic waves propagating along pure mode directions of crystals. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	3
44	Axial acoustic radiation force on a sphere in Gaussian field. <i>AIP Conference Proceedings</i> , 2015, , .	0.4	3
45	Experimental study of the difference in deformation between normal and pathological, renal and bladder, cells induced by acoustic radiation force. <i>European Biophysics Journal</i> , 2020, 49, 155-161.	2.2	3
46	Nonlinear effects of the finite amplitude ultrasound wave in biological tissues. <i>Science Bulletin</i> , 2000, 45, 508-512.	1.7	2
47	Theoretical and experimental study of nonclassical nonlinear acoustic phenomena in concrete. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	2
48	A compact configurable dual-band bandpass filter. <i>IEICE Electronics Express</i> , 2015, 12, 20150931-20150931.	0.8	2
49	Acoustic transmission enhancement through a soft interlayer with a reactance boundary. <i>Journal of the Acoustical Society of America</i> , 2015, 138, 782-790.	1.1	2
50	A compact customizable tunable EBG filter. <i>IEICE Electronics Express</i> , 2016, 13, 20150990-20150990.	0.8	2
51	Temperature rise induced by an annular focused transducer with a wide aperture angle in multi-layer tissue. <i>Chinese Physics B</i> , 2018, 27, 014301.	1.4	2
52	Acoustic radiation performance manipulation of metamaterials based on uneven-depth grooves. <i>Applied Physics Express</i> , 2019, 12, 124004.	2.4	2
53	Ultrasonic Scattered Field Distribution of One and Two Cylindrical Solids with Phased Array Technique. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2019, 32, .	3.7	2
54	Using Helmholtz resonator arrays to improve dipole transmission efficiency in waveguide. <i>Chinese Physics B</i> , 2019, 28, 094301.	1.4	1

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55	The study on the nonclassical nonlinear effect of concretes with different mix rate. , 2013, , .		0
56	Elastic anomalies near phase transitions of lead-free (Na,Bi)TiO ₃ and (Ba,Zr)TiO ₃ ferroelectric ceramics. Science Bulletin, 2014, 59, 2287-2291.	1.7	0
57	Sound beam manipulation based on temperature gradients. AIP Conference Proceedings, 2015, , .	0.4	0
58	Acoustic total transmission and additional modes in the metamaterials embedded with defects. AIP Advances, 2016, 6, 115109.	1.3	0
59	Manipulating sound wave radiation by zero-index metamaterials. Proceedings of Meetings on Acoustics, 2017, , .	0.3	0
60	A method to locate spatial distribution of scattering centers from ultrasonic backscatter signal. Journal of the Acoustical Society of America, 2019, 145, 2453-2460.	1.1	0
61	Off axis acoustic radiation force on cylindrical particle in plane traveling wave. Proceedings of Meetings on Acoustics, 2019, , .	0.3	0
62	Realizing the second harmonic acoustic focusing based on an artificial bubble array. AIP Advances, 2022, 12, 065120.	1.3	0
63	Acoustic three-terminal controller with amplitude control for nonlinear seismic metamaterials. AIP Advances, 2022, 12, 075312.	1.3	0