Ying Cheng

List of Publications by Year in Descending Order

98 papers	2,901 citations	28 h-index	52 g-index
104 ext. papers	3,654 ext. citations	5.2 avg, IF	5.77 L-index

#	Paper	IF	Citations
98	Metasurface absorber for ultra-broadband sound via over-damped modes coupling. *Applied Physics Letters*, **2022**, 120, 083504	3.4	2
97	An ultra-thin ventilated metasurface with extreme asymmetric absorption. *Applied Physics Letters*, **2022**, 120, 141701	3.4	1
96	Sound focusing by a broadband acoustic Luneburg lens.. *Journal of the Acoustical Society of America* , **2022**, 151, 2238	2.2	0
95	Observations of Tamm modes in acoustic topological insulators. *Applied Physics Letters*, **2022**, 120, 211701	3.4	0
94	Multiband asymmetric sound absorber enabled by ultrasparse Mie resonators. *Journal of the Acoustical Society of America*, **2021**, 149, 2072	2.2	4
93	Emitting long-distance spiral airborne sound using low-profile planar acoustic antenna. *Nature Communications*, **2021**, 12, 2006	17.4	5
92	Broadband acoustic vortex beam generator based on coupled resonances. *Applied Physics Letters*, **2021**, 118, 143503	3.4	2
91	Subwavelength higher-order topological insulator based on stereo acoustic networks. *Journal of Applied Physics*, **2021**, 129, 135101	2.5	0
90	Experimental demonstration of a reconfigurable acoustic second-order topological insulator using condensed soda cans array. *Applied Physics Letters*, **2021**, 118, 203501	3.4	4
89	Generation of diverse acoustic vortices by superimposed multipole emissions. *Physical Review B*, **2021**, 103,	3.3	1
88	Remote whispering metamaterial for non-radiative transceiving of ultra-weak sound. *Nature Communications*, **2021**, 12, 3670	17.4	7
87	High absorption asymmetry enabled by a deep-subwavelength ventilated sound absorber. *Applied Physics Letters*, **2021**, 118, 263502	3.4	5
86	Resonant tunneling compression and evanescent wave amplification by an acoustic metalens. *Applied Acoustics*, **2021**, 178, 107993	3.1	2
85	Ultrathin Composite Metasurface for Absorbing Subkilohertz Low-Frequency Underwater Sound. *Physical Review Applied*, **2021**, 16,	4.3	2
84	Ultra-sparse metamaterials absorber for broadband low-frequency sound with free ventilation. *Journal of the Acoustical Society of America*, **2021**, 150, 1044	2.2	3
83	Non-Hermitian topological whispering gallery. *Nature*, **2021**, 597, 655-659	50.4	11
82	An extremely anisotropic phononic crystal with open elliptical dispersion for energy convergence and beam squeezing. *Applied Physics Letters*, **2020**, 117, 183501	3.4	1

81	Pseudospin induced topological corner state at intersecting sonic lattices. *Physical Review B*, **2020**, 101,	3.3	12
80	Acoustic holography using composite metasurfaces. *Applied Physics Letters*, **2020**, 116, 030501	3.4	16
79	Reversed Doppler effect based on hybridized acoustic Mie resonances. *Scientific Reports*, **2020**, 10, 1519	4.9	0
78	Subwavelength broadband sound absorber based on a composite metasurface. *Scientific Reports*, **2020**, 10, 13823	4.9	11
77	Tunable and broadband asymmetric sound absorptions with coupling of acoustic bright and dark modes. *Journal of Sound and Vibration*, **2020**, 479, 115371	3.9	20
76	Broadband near-perfect absorption of low-frequency sound by subwavelength metasurface. *Applied Physics Letters*, **2019**, 115, 103503	3.4	37
75	Ultrathin acoustic cloaking by a conformal hybrid metasurface. *Scientific Reports*, **2019**, 9, 12700	4.9	3
74	Low-frequency perfect sound absorption achieved by a modulus-near-zero metamaterial. *Scientific Reports*, **2019**, 9, 13482	4.9	16
73	Tunable perfect negative reflection based on an acoustic coding metasurface. *Applied Physics Letters*, **2019**, 114, 203505	3.4	15
72	Subwavelength multiple topological interface states in one-dimensional labyrinthine acoustic metamaterials. *Physical Review B*, **2019**, 99,	3.3	24
71	Non-Hermitian Sonic Second-Order Topological Insulator. *Physical Review Letters*, **2019**, 122, 195501	7.4	81
70	Modulation of acoustic waves by a broadband metagrating. *Scientific Reports*, **2019**, 9, 7271	4.9	8
69	Acoustic accelerating beam based on a curved metasurface. *Applied Physics Letters*, **2019**, 114, 113507	3.4	15
68	Modulating acoustic Fano resonance of self-collimated sound beams in two dimensional sonic crystals. *Ultrasonics*, **2019**, 91, 129-133	3.5	2
67	Acoustic metamaterial antennas for combined highly directive-sensitive detection. *Applied Physics Letters*, **2019**, 115, 053501	3.4	14
66	Deep-Subwavelength Holey Acoustic Second-Order Topological Insulators. *Advanced Materials*, **2019**, 31, e1904682	24	44
65	Asymmetric coding metasurfaces for the controllable projection of acoustic images. *Physical Review Materials*, **2019**, 3,	3.2	10
64	Subwavelength Acoustic Valley-Hall Topological Insulators Using Soda Cans Honeycomb Lattices. *Research*, **2019**, 2019, 5385763	7.8	9

63	Pseudospin modes of surface acoustic wave and topologically protected sound transmission in phononic crystal. *Wuli Xuebao/Acta Physica Sinica*, **2019**, 68, 227805	0.6	1
62	Topological Insulators: Deep-Subwavelength Holey Acoustic Second-Order Topological Insulators (Adv. Mater. 49/2019). *Advanced Materials*, **2019**, 31, 1970344	24	1
61	Multiband quasi-perfect low-frequency sound absorber based on double-channel Mie resonator. *Applied Physics Letters*, **2018**, 112, 033507	3.4	41
60	Acoustic analog computing based on a reflective metasurface with decoupled modulation of phase and amplitude. *Journal of Applied Physics*, **2018**, 123, 091704	2.5	22
59	Topological Acoustic Delay Line. *Physical Review Applied*, **2018**, 9,	4.3	97
58	Directional Acoustic Antennas Based on Valley-Hall Topological Insulators. *Advanced Materials*, **2018**, 30, e1803229	24	105
57	Acoustic spin Hall-like effect in hyperbolic metamaterials controlled by the helical wave. *Scientific Reports*, **2018**, 8, 11113	4.9	5
56	Tunable directional subwavelength acoustic antenna based on Mie resonance. *Scientific Reports*, **2018**, 8, 10049	4.9	16
55	Achieving acoustic topological valley-Hall states by modulating the subwavelength honeycomb lattice. *Scientific Reports*, **2018**, 8, 16784	4.9	10
54	Topological sound. *Communications Physics*, **2018**, 1,	5.4	128
53	Reconfigurable sound anomalous absorptions in transparent waveguide with modularized multi-order Helmholtz resonator. *Scientific Reports*, **2018**, 8, 15678	4.9	20
52	Asymmetric acoustic transmission with a lossy gradient-index metasurface. *Applied Physics Letters*, **2018**, 113, 121901	3.4	29
51	Acoustic analog computing system based on labyrinthine metasurfaces. *Scientific Reports*, **2018**, 8, 10103	4.9	21
50	Mathematical operations for acoustic signals based on layered labyrinthine metasurfaces. *Applied Physics Letters*, **2017**, 110, 011904	3.4	26
49	Perfect absorption of low-frequency sound waves by critically coupled subwavelength resonant system. *Applied Physics Letters*, **2017**, 110, 023502	3.4	60
48	Topological Creation of Acoustic Pseudospin Multipoles in a Flow-Free Symmetry-Broken Metamaterial Lattice. *Physical Review Letters*, **2017**, 118, 084303	7.4	214
47	Acoustic holography based on composite metasurface with decoupled modulation of phase and amplitude. *Applied Physics Letters*, **2017**, 110, 191901	3.4	90
46	One-way self-collimated acoustic beams in two-dimensional asymmetric sonic crystals with circulating fluids. *Applied Physics Express*, **2017**, 10, 067301	2.4	3

45	Extraordinary acoustic transmission at low frequency by a tunable acoustic impedance metasurface based on coupled Mie resonators. *Applied Physics Letters*, **2017**, 110, 233502	3.4	31
44	Perfect monochromatic acoustic anti-reflection: A first-principles study. *Journal of Applied Physics*, **2017**, 121, 094504	2.5	3
43	Experimental demonstration of topologically protected efficient sound propagation in an acoustic waveguide network. *Physical Review B*, **2017**, 95,	3.3	51
42	Asymmetric absorber with multiband and broadband for low-frequency sound. *Applied Physics Letters*, **2017**, 111, 143502	3.4	69
41	Non-diffraction propagation of acoustic waves in a rapidly modulated stratified medium. *Scientific Reports*, **2017**, 7, 8184	4.9	1
40	Wide-angle asymmetric acoustic absorber based on one-dimensional lossy Bragg stacks. *Journal of the Acoustical Society of America*, **2017**, 142, EL69	2.2	14
39	A hybrid phononic crystal for roof application. *Journal of the Acoustical Society of America*, **2017**, 142, 2988	2.2	3
38	Experimental verification of acoustic pseudospin multipoles in a symmetry-broken snowflakelike topological insulator. *Physical Review B*, **2017**, 96,	3.3	66
37	Modulation of water surface waves with a coiling-up-space metasurface. *AIP Advances*, **2016**, 6, 055017	1.5	6
36	Efficient Magnetic Resonance Amplification and Near-Field Enhancement from Gain-Assisted Silicon Nanospheres and Nanoshells. *Journal of Physical Chemistry C*, **2016**, 120, 13227-13233	3.8	8
35	Compact transformable acoustic logic gates for broadband complex Boolean operations based on density-near-zero metamaterials. *Applied Physics Letters*, **2016**, 108, 183508	3.4	16
34	Precise rainbow trapping for low-frequency acoustic waves with micro Mie resonance-based structures. *Applied Physics Letters*, **2016**, 108, 063501	3.4	39
33	An acoustic Maxwell's fish-eye lens based on gradient-index metamaterials. *Chinese Physics B*, **2016**, 25, 104301	1.2	4
32	Unidirectional acoustic transmission in asymmetric bull's eye structure. *Science China: Physics, Mechanics and Astronomy*, **2015**, 58, 1-5	3.6	5
31	Laser-Ultrasonic Investigation on Lamb Waves in Two-Dimensional Phononic Crystal Plates. *International Journal of Thermophysics*, **2015**, 36, 1195-1201	2.1	
30	Controlling sound transmission with density-near-zero acoustic membrane network. *Journal of Applied Physics*, **2015**, 118, 024505	2.5	35
29	Ultra-sparse metasurface for high reflection of low-frequency sound based on artificial Mie resonances. *Nature Materials*, **2015**, 14, 1013-9	27	273
28	Acoustic planar hyperlens based on anisotropic density-near-zero metamaterials. *Applied Physics Letters*, **2015**, 107, 133503	3.4	40

27	Dual-frequency plasmon lasing modes in active three-layered bimetallic Ag/Au nanoshells. *Applied Physics Letters*, **2015**, 107, 191909	3.4	7
26	Broadband manipulation of acoustic wavefronts by pentamode metasurface. *Applied Physics Letters* , **2015**, 107, 221906	3.4	86
25	Acoustic logic gates and Boolean operation based on self-collimating acoustic beams. *Applied Physics Letters*, **2015**, 106, 113503	3.4	27
24	Conversion of sound radiation pattern via gradient acoustic metasurface with space-coiling structure. *Applied Physics Express*, **2015**, 8, 027301	2.4	74
23	An active metallic nanomatryushka with two similar super-resonances. *Journal of Applied Physics*, **2014**, 116, 013502	2.5	9
22	Reconstructed imaging of acoustic cloak using time-lapse reversal method. *Applied Physics Express*, **2014**, 7, 087301	2.4	0
21	Manipulation of extraordinary acoustic transmission by a tunable bull's eye structure. *Chinese Physics B*, **2014**, 23, 054301	1.2	3
20	Acoustic total transmission and total reflection in zero-index metamaterials with defects. *Applied Physics Letters*, **2013**, 102, 174104	3.4	36
19	Acoustic subwavelength imaging of subsurface objects with acoustic resonant metalens. *Applied Physics Letters*, **2013**, 103, 224104	3.4	45
18	Coupled resonant modes in twisted acoustic metamaterials. *Applied Physics A: Materials Science and Processing*, **2012**, 109, 805-811	2.6	7
17	Acoustic cloak with duplex communication ability constructed by multilayered homogeneous isotropic materials. *Applied Physics A: Materials Science and Processing*, **2012**, 109, 913-919	2.6	7
16	Modulation of anisotropic middle layer on the plasmon couplings in sandwiched gold nanoshells. *Gold Bulletin*, **2012**, 45, 197-201	1.6	5
15	Negative refraction induced acoustic concentrator and the effects of scattering cancellation, imaging, and mirage. *Physical Review B*, **2012**, 86,	3.3	13
14	Temperature effects on the band gaps of Lamb waves in a one-dimensional phononic-crystal plate (L). *Journal of the Acoustical Society of America*, **2011**, 129, 1157-60	2.2	42
13	Band structure of a phononic crystal plate in the form of a staggered-layer structure. *Journal of Applied Physics*, **2011**, 109, 064904	2.5	22
12	Band structures of phononic-crystal plates in the form of a sandwich-layered structure. *Journal of the Acoustical Society of America*, **2011**, 130, 2738-45	2.2	10
11	Tunable sound directional beaming assisted by acoustic surface wave. *Applied Physics Letters*, **2010**, 96, 071910	3.4	18
10	Three dimensional multilayered acoustic cloak with homogeneous isotropic materials. *Applied Physics A: Materials Science and Processing*, **2009**, 94, 25-30	2.6	35

9	Hot spots induced near-field enhancements in Au nanoshell and Au nanoshell dimer. *Applied Physics B: Lasers and Optics*, **2009**, 97, 497-503	1.9	7
8	A multilayer structured acoustic cloak with homogeneous isotropic materials. *Applied Physics Letters*, **2008**, 92, 151913	3.4	190
7	Specific multiple-scattering process in acoustic cloak with multilayered homogeneous isotropic materials. *Journal of Applied Physics*, **2008**, 104, 104911	2.5	15
6	One-dimensional structured ultrasonic metamaterials with simultaneously negative dynamic density and modulus. *Physical Review B*, **2008**, 77,	3.3	182
5	Resonance effects in broadband acoustic cloak with multilayered homogeneous isotropic materials. *Applied Physics Letters*, **2008**, 93, 071903	3.4	22
4	Broad forbidden bands in parallel-coupled locally resonant ultrasonic metamaterials. *Applied Physics Letters*, **2008**, 92, 051913	3.4	71
3	Three-dimensional laser-induced thermal and stress analyses in diamond/ZnSe system. *European Physical Journal: Special Topics*, **2008**, 153, 91-93	2.3	
2	Finite element modeling of laser-induced three-dimensional Transient Thermal Grating in two-layered systems. *European Physical Journal: Special Topics*, **2008**, 153, 155-158	2.3	
1	Periodical Variation of Electronic Properties in Polyhydroxylated Metallofullerene Materials. *Advanced Materials*, **2006**, 18, 1458-1462	24	27