# Ying Cheng

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#	Paper	IF	Citations
98	Ultra-sparse metasurface for high reflection oflow-frequency sound based on artificial Mielresonances. <i>Nature Materials</i> , <b>2015</b> , 14, 1013-9	27	273
97	Topological Creation of Acoustic Pseudospin Multipoles in a Flow-Free Symmetry-Broken Metamaterial Lattice. <i>Physical Review Letters</i> , <b>2017</b> , 118, 084303	7.4	214
96	A multilayer structured acoustic cloak with homogeneous isotropic materials. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 151913	3.4	190
95	One-dimensional structured ultrasonic metamaterials with simultaneously negative dynamic density and modulus. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	182
94	Topological sound. <i>Communications Physics</i> , <b>2018</b> , 1,	5.4	128
93	Directional Acoustic Antennas Based on Valley-Hall Topological Insulators. <i>Advanced Materials</i> , <b>2018</b> , 30, e1803229	24	105
92	Topological Acoustic Delay Line. <i>Physical Review Applied</i> , <b>2018</b> , 9,	4.3	97
91	Acoustic holography based on composite metasurface with decoupled modulation of phase and amplitude. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 191901	3.4	90
90	Broadband manipulation of acoustic wavefronts by pentamode metasurface. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 221906	3.4	86
89	Non-Hermitian Sonic Second-Order Topological Insulator. <i>Physical Review Letters</i> , <b>2019</b> , 122, 195501	7.4	81
88	Conversion of sound radiation pattern via gradient acoustic metasurface with space-coiling structure. <i>Applied Physics Express</i> , <b>2015</b> , 8, 027301	2.4	74
87	Broad forbidden bands in parallel-coupled locally resonant ultrasonic metamaterials. <i>Applied Physics Letters</i> , <b>2008</b> , 92, 051913	3.4	71
86	Asymmetric absorber with multiband and broadband for low-frequency sound. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 143502	3.4	69
85	Experimental verification of acoustic pseudospin multipoles in a symmetry-broken snowflakelike topological insulator. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	66
84	Perfect absorption of low-frequency sound waves by critically coupled subwavelength resonant system. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 023502	3.4	60
83	Experimental demonstration of topologically protected efficient sound propagation in an acoustic waveguide network. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	51
82	Acoustic subwavelength imaging of subsurface objects with acoustic resonant metalens. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 224104	3.4	45

## (2008-2019)

81	Deep-Subwavelength Holey Acoustic Second-Order Topological Insulators. <i>Advanced Materials</i> , <b>2019</b> , 31, e1904682	24	44	
80	Temperature effects on the band gaps of Lamb waves in a one-dimensional phononic-crystal plate (L). <i>Journal of the Acoustical Society of America</i> , <b>2011</b> , 129, 1157-60	2.2	42	
79	Multiband quasi-perfect low-frequency sound absorber based on double-channel Mie resonator. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 033507	3.4	41	
78	Acoustic planar hyperlens based on anisotropic density-near-zero metamaterials. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 133503	3.4	40	
77	Precise rainbow trapping for low-frequency acoustic waves with micro Mie resonance-based structures. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 063501	3.4	39	
76	Broadband near-perfect absorption of low-frequency sound by subwavelength metasurface. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 103503	3.4	37	
75	Acoustic total transmission and total reflection in zero-index metamaterials with defects. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 174104	3.4	36	
74	Controlling sound transmission with density-near-zero acoustic membrane network. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 024505	2.5	35	
73	Three dimensional multilayered acoustic cloak with homogeneous isotropic materials. <i>Applied Physics A: Materials Science and Processing</i> , <b>2009</b> , 94, 25-30	2.6	35	
72	Extraordinary acoustic transmission at low frequency by a tunable acoustic impedance metasurface based on coupled Mie resonators. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 233502	3.4	31	
71	Asymmetric acoustic transmission with a lossy gradient-index metasurface. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 121901	3.4	29	
70	Acoustic logic gates and Boolean operation based on self-collimating acoustic beams. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 113503	3.4	27	
69	Periodical Variation of Electronic Properties in Polyhydroxylated Metallofullerene Materials. <i>Advanced Materials</i> , <b>2006</b> , 18, 1458-1462	24	27	
68	Mathematical operations for acoustic signals based on layered labyrinthine metasurfaces. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 011904	3.4	26	
67	Subwavelength multiple topological interface states in one-dimensional labyrinthine acoustic metamaterials. <i>Physical Review B</i> , <b>2019</b> , 99,	3.3	24	
66	Acoustic analog computing based on a reflective metasurface with decoupled modulation of phase and amplitude. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 091704	2.5	22	
65	Band structure of a phononic crystal plate in the form of a staggered-layer structure. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 064904	2.5	22	
64	Resonance effects in broadband acoustic cloak with multilayered homogeneous isotropic materials. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 071903	3.4	22	

63	Acoustic analog computing system based on labyrinthine metasurfaces. Scientific Reports, 2018, 8, 1010	<b>)3</b> 4.9	21
62	Tunable and broadband asymmetric sound absorptions with coupling of acoustic bright and dark modes. <i>Journal of Sound and Vibration</i> , <b>2020</b> , 479, 115371	3.9	20
61	Reconfigurable sound anomalous absorptions in transparent waveguide with modularized multi-order Helmholtz resonator. <i>Scientific Reports</i> , <b>2018</b> , 8, 15678	4.9	20
60	Tunable sound directional beaming assisted by acoustic surface wave. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 071910	3.4	18
59	Low-frequency perfect sound absorption achieved by a modulus-near-zero metamaterial. <i>Scientific Reports</i> , <b>2019</b> , 9, 13482	4.9	16
58	Acoustic holography using composite metasurfaces. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 030501	3.4	16
57	Tunable directional subwavelength acoustic antenna based on Mie resonance. <i>Scientific Reports</i> , <b>2018</b> , 8, 10049	4.9	16
56	Compact transformable acoustic logic gates for broadband complex Boolean operations based on density-near-zero metamaterials. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 183508	3.4	16
55	Tunable perfect negative reflection based on an acoustic coding metasurface. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 203505	3.4	15
54	Acoustic accelerating beam based on a curved metasurface. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 113507	3.4	15
53	Specific multiple-scattering process in acoustic cloak with multilayered homogeneous isotropic materials. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 104911	2.5	15
52	Acoustic metamaterial antennas for combined highly directive-sensitive detection. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 053501	3.4	14
51	Wide-angle asymmetric acoustic absorber based on one-dimensional lossy Bragg stacks. <i>Journal of the Acoustical Society of America</i> , <b>2017</b> , 142, EL69	2.2	14
50	Negative refraction induced acoustic concentrator and the effects of scattering cancellation, imaging, and mirage. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	13
49	Pseudospin induced topological corner state at intersecting sonic lattices. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	12
48	Subwavelength broadband sound absorber based on a composite metasurface. <i>Scientific Reports</i> , <b>2020</b> , 10, 13823	4.9	11
47	Non-Hermitian topological whispering gallery. <i>Nature</i> , <b>2021</b> , 597, 655-659	50.4	11
46	Band structures of phononic-crystal plates in the form of a sandwich-layered structure. <i>Journal of the Acoustical Society of America</i> , <b>2011</b> , 130, 2738-45	2.2	10

## (2021-2019)

45	Asymmetric coding metasurfaces for the controllable projection of acoustic images. <i>Physical Review Materials</i> , <b>2019</b> , 3,	3.2	10
44	Achieving acoustic topological valley-Hall states by modulating the subwavelength honeycomb lattice. <i>Scientific Reports</i> , <b>2018</b> , 8, 16784	4.9	10
43	An active metallic nanomatryushka with two similar super-resonances. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 013502	2.5	9
42	Subwavelength Acoustic Valley-Hall Topological Insulators Using Soda Cans Honeycomb Lattices. <i>Research</i> , <b>2019</b> , 2019, 5385763	7.8	9
41	Modulation of acoustic waves by a broadband metagrating. <i>Scientific Reports</i> , <b>2019</b> , 9, 7271	4.9	8
40	Efficient Magnetic Resonance Amplification and Near-Field Enhancement from Gain-Assisted Silicon Nanospheres and Nanoshells. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 13227-13233	3.8	8
39	Dual-frequency plasmon lasing modes in active three-layered bimetallic Ag/Au nanoshells. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 191909	3.4	7
38	Coupled resonant modes in twisted acoustic metamaterials. <i>Applied Physics A: Materials Science and Processing</i> , <b>2012</b> , 109, 805-811	2.6	7
37	Acoustic cloak with duplex communication ability constructed by multilayered homogeneous isotropic materials. <i>Applied Physics A: Materials Science and Processing</i> , <b>2012</b> , 109, 913-919	2.6	7
36	Hot spots Induced near-field enhancements in Au nanoshell and Au nanoshell dimer. <i>Applied Physics B: Lasers and Optics</i> , <b>2009</b> , 97, 497-503	1.9	7
35	Remote whispering metamaterial for non-radiative transceiving of ultra-weak sound. <i>Nature Communications</i> , <b>2021</b> , 12, 3670	17.4	7
34	Modulation of water surface waves with a coiling-up-space metasurface. <i>AIP Advances</i> , <b>2016</b> , 6, 055017	1.5	6
33	Unidirectional acoustic transmission in asymmetric bull eye structure. <i>Science China: Physics, Mechanics and Astronomy</i> , <b>2015</b> , 58, 1-5	3.6	5
32	Acoustic spin Hall-like effect in hyperbolic metamaterials controlled by the helical wave. <i>Scientific Reports</i> , <b>2018</b> , 8, 11113	4.9	5
31	Modulation of anisotropic middle layer on the plasmon couplings in sandwiched gold nanoshells. <i>Gold Bulletin</i> , <b>2012</b> , 45, 197-201	1.6	5
30	Emitting long-distance spiral airborne sound using low-profile planar acoustic antenna. <i>Nature Communications</i> , <b>2021</b> , 12, 2006	17.4	5
29	High absorption asymmetry enabled by a deep-subwavelength ventilated sound absorber. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 263502	3.4	5
28	Multiband asymmetric sound absorber enabled by ultrasparse Mie resonators. <i>Journal of the Acoustical Society of America</i> , <b>2021</b> , 149, 2072	2.2	4

27	Experimental demonstration of a reconfigurable acoustic second-order topological insulator using condensed soda cans array. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 203501	3.4	4
26	An acoustic Maxwell® fish-eye lens based on gradient-index metamaterials. <i>Chinese Physics B</i> , <b>2016</b> , 25, 104301	1.2	4
25	One-way self-collimated acoustic beams in two-dimensional asymmetric sonic crystals with circulating fluids. <i>Applied Physics Express</i> , <b>2017</b> , 10, 067301	2.4	3
24	Perfect monochromatic acoustic anti-reflection: A first-principles study. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 094504	2.5	3
23	Ultrathin acoustic cloaking by a conformal hybrid metasurface. Scientific Reports, 2019, 9, 12700	4.9	3
22	A hybrid phononic crystal for roof application. <i>Journal of the Acoustical Society of America</i> , <b>2017</b> , 142, 2988	2.2	3
21	Manipulation of extraordinary acoustic transmission by a tunable bull's eye structure. <i>Chinese Physics B</i> , <b>2014</b> , 23, 054301	1.2	3
20	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
19	Modulating acoustic Fano resonance of self-collimated sound beams in two dimensional sonic crystals. <i>Ultrasonics</i> , <b>2019</b> , 91, 129-133	3.5	2
18	Broadband acoustic vortex beam generator based on coupled resonances. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 143503	3.4	2
17	Resonant tunneling compression and evanescent wave amplification by an acoustic metalens. <i>Applied Acoustics</i> , <b>2021</b> , 178, 107993	3.1	2
16	Ultrathin Composite Metasurface for Absorbing Subkilohertz Low-Frequency Underwater Sound. <i>Physical Review Applied</i> , <b>2021</b> , 16,	4.3	2
15	Metasurface absorber for ultra-broadband sound via over-damped modes coupling. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 083504	3.4	2
14	An extremely anisotropic phononic crystal with open elliptical dispersion for energy convergence and beam squeezing. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 183501	3.4	1
13	Non-diffraction propagation of acoustic waves in a rapidly modulated stratified medium. <i>Scientific Reports</i> , <b>2017</b> , 7, 8184	4.9	1
12	Pseudospin modes of surface acoustic wave and topologically protected sound transmission in phononic crystal. <i>Wuli Xuebao/Acta Physica Sinica</i> , <b>2019</b> , 68, 227805	0.6	1
11	Generation of diverse acoustic vortices by superimposed multipole emissions. <i>Physical Review B</i> , <b>2021</b> , 103,	3.3	1
10	Topological Insulators: Deep-Subwavelength Holey Acoustic Second-Order Topological Insulators (Adv. Mater. 49/2019). <i>Advanced Materials</i> , <b>2019</b> , 31, 1970344	24	1

#### LIST OF PUBLICATIONS

9	An ultra-thin ventilated metasurface with extreme asymmetric absorption. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 141701	3.4	1	
8	Reconstructed imaging of acoustic cloak using time-lapse reversal method. <i>Applied Physics Express</i> , <b>2014</b> , 7, 087301	2.4	O	
7	Reversed Doppler effect based on hybridized acoustic Mie resonances. Scientific Reports, <b>2020</b> , 10, 1519	94.9	O	
6	Subwavelength higher-order topological insulator based on stereo acoustic networks. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 135101	2.5	O	
5	Sound focusing by a broadband acoustic Luneburg lens <i>Journal of the Acoustical Society of America</i> , <b>2022</b> , 151, 2238	2.2	O	
4	Observations of Tamm modes in acoustic topological insulators. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 2117	79.14	О	
3	Laser-Ultrasonic Investigation on Lamb Waves in Two-Dimensional Phononic Crystal Plates. <i>International Journal of Thermophysics</i> , <b>2015</b> , 36, 1195-1201	2.1		
2	Three-dimensional laser-induced thermal and stress analyses in diamond/ZnSe system. <i>European Physical Journal: Special Topics</i> , <b>2008</b> , 153, 91-93	2.3		
1	Finite element modeling of laser-induced three-dimensional Transient Thermal Grating in two-layered systems. <i>European Physical Journal: Special Topics</i> , <b>2008</b> , 153, 155-158	2.3		