Bin Zheng

List of Publications by Year
in descending order

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76 papers	2,430 citations	257101 24 h-index	214527 47 g-index
76 all docs	76 docs citations	76 times ranked	1939 citing authors

#	Article	IF	Citations
1	Deep-learning-enabled self-adaptive microwave cloak without human intervention. Nature Photonics, 2020, 14, 383-390.	15.6	289
2	Fullâ€Polarization 3D Metasurface Cloak with Preserved Amplitude and Phase. Advanced Materials, 2016, 28, 6866-6871.	11.1	259
3	Origamiâ€Based Reconfigurable Metamaterials for Tunable Chirality. Advanced Materials, 2017, 29, 1700412.	11.1	193
4	Ray-optics cloaking devices for large objects in incoherent natural light. Nature Communications, 2013, 4, 2652.	5.8	156
5	Hyperbolic spoof plasmonic metasurfaces. NPG Asia Materials, 2017, 9, e428-e428.	3.8	97
6	Broadband polygonal invisibility cloak for visible light. Scientific Reports, 2012, 2, 255.	1.6	92
7	Gradient Chiral Metamirrors for Spinâ€Selective Anomalous Reflection. Laser and Photonics Reviews, 2017, 11, 1700115.	4.4	89
8	Chiral metamirrors for broadband spin-selective absorption. Applied Physics Letters, 2017, 110, .	1.5	77
9	Realizing transmitted metasurface cloak by a tandem neural network. Photonics Research, 2021, 9, B229.	3.4	71
10	Ultrawideband chromatic aberration-free meta-mirrors. Advanced Photonics, 2020, 3, .	6.2	63
11	Kirigami metamaterials for reconfigurable toroidal circular dichroism. NPG Asia Materials, 2018, 10, 888-898.	3.8	58
12	Broadband compact acoustic absorber with high-efficiency ventilation performance. Applied Physics Letters, 2018, 113, .	1.5	57
13	Concealing arbitrary objects remotely with multi-folded transformation optics. Light: Science and Applications, 2016, 5, e16177-e16177.	7.7	52
14	Transformation Optics: From Classic Theory and Applications to its New Branches. Laser and Photonics Reviews, 2017, 11, 1700034.	4.4	52
15	Multi-frequency metasurface carpet cloaks. Optics Express, 2018, 26, 14123.	1.7	45
16	Origami Metawall: Mechanically Controlled Absorption and Deflection of Light. Advanced Science, 2019, 6, 1901434.	5.6	42
17	Machineâ€“learning-enabled metasurface for direction of arrival estimation. Nanophotonics, 2022, 11, 2001-2010.	2.9	39
18	Inverse design of acoustic metamaterials based on machine learning using a Gaussâ€“Bayesian model. Journal of Applied Physics, 2020, 128, .	1.1	37

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19	Dynamic recognition and mirage using neuro-metamaterials. Nature Communications, 2022, 13, 2694.	5.8	37
20	Frequencyâ€Controlled Focusing Using Achromatic Metasurface. Advanced Optical Materials, 2021, 9, .	3.6	36
21	In Situ Customized Illusion Enabled by Global Metasurface Reconstruction. Advanced Functional Materials, 2022, 32, .	7.8	31
22	Bifunctional acoustic metamaterial lens designed with coordinate transformation. Applied Physics Letters, 2017, 110, .	1.5	30
23	Largeâ€Scale Farâ€Infrared Invisibility Cloak Hiding Object from Thermal Detection. Advanced Optical Materials, 2015, 3, 1738-1742.	3.6	28
24	3D Visibleâ€Light Invisibility Cloak. Advanced Science, 2018, 5, 1800056.	5.6	28
25	Toroidal Localized Spoof Plasmons on Compact Metadisks. Advanced Science, 2018, 5, 1700487.	5.6	27
26	Magnetic Hyperbolic Metasurface: Concept, Design, and Applications. Advanced Science, 2018, 5, 1801495.	5.6	24
27	Design of Ultracompact Graphene-Based Superscatterers. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 130-137.	1.9	23
28	Diodelike Spin-Orbit Interactions of Light in Chiral Metasurfaces. IEEE Transactions on Antennas and Propagation, 2018, 66, 7148-7155.	3.1	23
29	Angularâ€Adaptive Spinâ€Locked Retroreflector Based on Reconfigurable Magnetic Metagrating. Advanced Optical Materials, 2019, 7, 1900151.	3.6	23
30	Spiral Field Generation in Smith-Purcell Radiation by Helical Metagratings. Research, 2019, 2019, 3806132.	2.8	22
31	A broadband polygonal cloak for acoustic wave designed with linear coordinate transformation. Journal of the Acoustical Society of America, 2016, 140, 95-101.	0.5	21
32	Direct current remote cloak for arbitrary objects. Light: Science and Applications, 2019, 8, 30.	7.7	19
33	Panoramic lens designed with transformation optics. Scientific Reports, 2017, 7, 40083.	1.6	18
34	Bistable scattering in graphene-coated dielectric nanowires. Nanoscale, 2017, 9, 8449-8457.	2.8	17
35	Demonstration of Spiderâ€Eyesâ€Like Intelligent Antennas for Dynamically Perceiving Incoming Waves. Advanced Intelligent Systems, 2021, 3, 2100066.	3.3	16
36	Experimental Realization of an Extreme-Parameter Omnidirectional Cloak. Research, 2019, 2019, 8282641.	2.8	16

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37	Dispersion engineering of hyperbolic plasmons in bilayer 2D materials. Optics Letters, 2018, 43, 5737.	1.7	15
38	Machine-Learning-Assisted Acoustic Consecutive Fano Resonances: Application to a Tunable Broadband Low-Frequency Metasilencer. Physical Review Applied, 2021, 16, .	1.5	15
39	Machine learning-assisted low-frequency and broadband sound absorber with coherently coupled weak resonances. Applied Physics Letters, 2022, 120, .	1.5	14
40	Metasurface-based focus-tunable mirror. Optics Express, 2019, 27, 30332.	1.7	13
41	Broadband subwavelength imaging using non-resonant metamaterials. Applied Physics Letters, 2014, 104, 073502.	1.5	12
42	Manipulating surface plasmon polaritons with infinitely anisotropic metamaterials. Optics Express, 2017, 25, 10515.	1.7	12
43	Broadband Spinâ€Locked Metasurface Retroreflector. Advanced Science, 2022, 9, e2201397.	5.6	12
44	Transient response of a signal through a dispersive invisibility cloak. Optics Letters, 2016, 41, 4911.	1.7	11
45	Non-contact radio frequency shielding and wave guiding by multi-folded transformation optics method. Scientific Reports, 2016, 6, 36846.	1.6	10
46	Ultra-broadband carpet cloak for transverse-electric polarization. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 Td	1.0	9
47	Free-space carpet cloak using transformation optics and graphene. Optics Letters, 2014, 39, 6739.	1.7	8
48	Non-contact method to freely control the radiation patterns of antenna with multi-folded transformation optics. Scientific Reports, 2017, 7, 13171.	1.6	8
49	Structure-Induced Hyperbolic Dispersion in Waveguides. IEEE Transactions on Antennas and Propagation, 2019, 67, 5463-5468.	3.1	8
50	Deep Neural Network with Data Cropping Algorithm for Absorptive Frequencyâ€Selective Transmission Metasurface. Advanced Optical Materials, 2022, 10, .	3.6	8
51	Airy beams on two dimensional materials. Optics Communications, 2018, 414, 40-44.	1.0	7
52	Spoof Surface Plasmonic Graphene for Controlling the Transports and Emissions of Electromagnetic Waves. IEEE Transactions on Microwave Theory and Techniques, 2019, 67, 50-56.	2.9	7
53	Design of a reconfigurable broadband greyscale multiplexed metasurface hologram. Applied Optics, 2020, 59, 3660.	0.9	7
54	Spiral Field Generation in Smith-Purcell Radiation by Helical Metagratings. Research, 2019, 2019, 1-8.	2.8	7

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55	Ultrathin Acoustic Metasurface Holograms with Arbitrary Phase Control. Applied Sciences (Switzerland), 2019, 9, 3585.	1.3	6
56	Conformal hyperbolic optics. Physical Review Research, 2021, 3, .	1.3	5
57	Progress of novel electromagnetic cloaking research. Wuli Xuebao/Acta Physica Sinica, 2020, 69, 154104.	0.2	5
58	Observing the transient buildup of a superscatterer in the time domain. Optics Express, 2017, 25, 4967.	1.7	4
59	A bi-functional illusion device based on transformation optics. Journal of Optics (United Kingdom), 2019, 21, 035104.	1.0	4
60	A SIMPLE UNIDIRECTIONAL OPTICAL INVISIBILITY CLOAK MADE OF WATER. Progress in Electromagnetics Research, 2014, 146, 1-5.	1.6	3
61	Launching phase-controlled surface plasmons on Babinet metasurfaces. Optics Letters, 2018, 43, 3253.	1.7	3
62	Homogeneous material based acoustic concentrators and rotators with linear coordinate transformation. Scientific Reports, 2021, 11, 11531.	1.6	3
63	Analog of giant magnetoimpedance in magnetized Îµ-near-zero plasma. Optics Letters, 2019, 44, 991.	1.7	3
64	Reconfigurable Metasurface Hologram of Dynamic Distance via Deep Learning. Frontiers in Materials, 2022, 9, .	1.2	2
65	Experimental study on invisibility cloaks. , 2016, , .		1
66	Achieving panorama using singular metamaterials. Applied Physics Letters, 2019, 114, 051904.	1.5	1
67	A microwave wideband hyperlens based on metamaterials closed-rings. , 2012, , .		0
68	Broadband 3D metamaterial carpet cloak. , 2015, , .		0
69	Subwavelength resolution using metamaterials with different dispersion relations. , 2015, , .		0
70	Remote electromagnetic devices designed with transformation optics. , 2016, , .		0
71	Polygon acoustic cloak designed with coordinate transformation. , 2016, , .		0
72	Open cloak designed with transformation optics. , 2016, , .		0

#	Article	IF	Citations
73	Bifunctional acoustic lens. , 2016, , .		0
74	A remote cloak for arbitrary objects in DC frequency. , 2017, , .		0
75	Three-dimensional Direct Current Invisibility Cloak Produced with Bulk Materials. Optics Express, 0, , .	1.7	0
76	Design of ultra-thin underwater acoustic metasurface for broadband low-frequency diffuse reflection by deep neural networks. Scientific Reports, 2022, 12, .	1.6	0