Qiang Cheng

List of Publications by Year
in descending order

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		18482	16650
280	16,688	62	123
papers	citations	h-index	g-index

285	285	285	6753
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Coding metamaterials, digital metamaterials and programmable metamaterials. Light: Science and Applications, 2014, 3, e218-e218.	16.6	2,167
2	Space-time-coding digital metasurfaces. Nature Communications, 2018, 9, 4334.	12.8	728
3	Wireless Communications With Reconfigurable Intelligent Surface: Path Loss Modeling and Experimental Measurement. IEEE Transactions on Wireless Communications, 2021, 20, 421-439.	9.2	685
4	Broadband and high-efficiency conversion from guided waves to spoof surface plasmon polaritons. Laser and Photonics Reviews, 2014, 8, 146-151.	8.7	553
5	Broadband diffusion of terahertz waves by multi-bit coding metasurfaces. Light: Science and Applications, 2015, 4, e324-e324.	16.6	461
6	Anisotropic coding metamaterials and their powerful manipulation of differently polarized terahertz waves. Light: Science and Applications, 2016, 5, e16076-e16076.	16.6	422
7	Experimental Demonstration of Electromagnetic Tunneling Through an Epsilon-Near-Zero Metamaterial at Microwave Frequencies. Physical Review Letters, 2008, 100, 023903.	7.8	408
8	Ultrathin multiband gigahertz metamaterial absorbers. Journal of Applied Physics, 2011, 110, .	2.5	354
9	Convolution Operations on Coding Metasurface to Reach Flexible and Continuous Controls of Terahertz Beams. Advanced Science, 2016, 3, 1600156.	11.2	343
10	Programmable time-domain digital-coding metasurface for non-linear harmonic manipulation and new wireless communication systems. National Science Review, 2019, 6, 231-238.	9.5	298
11	A tunable metamaterial absorber using varactor diodes. New Journal of Physics, 2013, 15, 043049.	2.9	260
12	MIMO Transmission Through Reconfigurable Intelligent Surface: System Design, Analysis, and Implementation. IEEE Journal on Selected Areas in Communications, 2020, 38, 2683-2699.	14.0	242
13	An omnidirectional electromagnetic absorber made of metamaterials. New Journal of Physics, 2010, 12, 063006.	2.9	241
14	Deep Learning: A Rapid and Efficient Route to Automatic Metasurface Design. Advanced Science, 2019, 6, 1900128.	11.2	236
15	Broadband metamaterial for optical transparency and microwave absorption. Applied Physics Letters, 2017, 110, .	3.3	234
16	A wireless communication scheme based on space- and frequency-division multiplexing using digital metasurfaces. Nature Electronics, 2021, 4, 218-227.	26.0	224
17	Breaking Reciprocity with Spaceâ€Timeâ€Coding Digital Metasurfaces. Advanced Materials, 2019, 31, e1904069.	21.0	208
18	Independent control of harmonic amplitudes and phases via a time-domain digital coding metasurface. Light: Science and Applications, 2018, 7, 90.	16.6	202

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19	Wireless Communications with Programmable Metasurface: New Paradigms, Opportunities, and Challenges on Transceiver Design. IEEE Wireless Communications, 2020, 27, 180-187.	9.0	183
20	Anomalous Refraction and Nondiffractive Bessel-Beam Generation of Terahertz Waves through Transmission-Type Coding Metasurfaces. ACS Photonics, 2016, 3, 1968-1977.	6.6	175
21	A programmable diffractive deep neural network based on a digital-coding metasurface array. Nature Electronics, 2022, 5, 113-122.	26.0	171
22	Transmission-Type 2-Bit Programmable Metasurface for Single-Sensor and Single-Frequency Microwave Imaging. Scientific Reports, 2016, 6, 23731.	3.3	165
23	Wireless communications with programmable metasurface: Transceiver design and experimental results. China Communications, 2019, 16, 46-61.	3.2	158
24	A Reconfigurable Broadband Polarization Converter Based on an Active Metasurface. IEEE Transactions on Antennas and Propagation, 2018, 66, 6086-6095.	5.1	157
25	Design of arbitrarily shaped concentrators based on conformally optical transformation of nonuniform rational B-spline surfaces. Applied Physics Letters, 2008, 92, .	3.3	154
26	Broadband and Broad-Angle Low-Scattering Metasurface Based on Hybrid Optimization Algorithm. Scientific Reports, 2014, 4, 5935.	3.3	141
27	Switchable broadband terahertz absorber/reflector enabled by hybrid graphene-gold metasurface. Optics Express, 2017, 25, 7161.	3.4	140
28	Wireless Communications through a Simplified Architecture Based on Timeâ€Domain Digital Coding Metasurface. Advanced Materials Technologies, 2019, 4, 1900044.	5.8	134
29	Information Metamaterial Systems. IScience, 2020, 23, 101403.	4.1	132
30	Arbitrarily ellipticalâ€“cylindrical invisible cloaking. Journal Physics D: Applied Physics, 2008, 41, 085504.	2.8	129
31	Thermally tunable water-substrate broadband metamaterial absorbers. Applied Physics Letters, 2017, 110, .	3.3	127
32	Frequencyâ€Dependent Dualâ€Functional Coding Metasurfaces at Terahertz Frequencies. Advanced Optical Materials, 2016, 4, 1965-1973.	7.3	125
33	Programmable metasurfaceâ€based RF chainâ€free 8PSK wireless transmitter. Electronics Letters, 2019, 55, 417-420.	1.0	121
34	Cylindrical-to-plane-wave conversion via embedded optical transformation. Applied Physics Letters, 2008, 92, .	3.3	116
35	Invisibility cloak without singularity. Applied Physics Letters, 2008, 93, 194102.	3.3	116
36	Spatial Power Combination for Omnidirectional Radiation via Anisotropic Metamaterials. Physical Review Letters, 2012, 108, 213903.	7.8	114

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37	Broadband planar Luneburg lens based on complementary metamaterials. Applied Physics Letters, 2009, 95, 181901.	3.3	112
38	Analytical design of conformally invisible cloaks for arbitrarily shaped objects. Physical Review E, 2008, 77, 066607.	2.1	108
39	Frequency-Controls of Electromagnetic Multi-Beam Scanning by Metasurfaces. Scientific Reports, 2014, 4, 6921.	3.3	107
40	Hybrid metamaterial absorber for ultra-low and dual-broadband absorption. Optics Express, 2021, 29, 14078.	3.4	107
41	Terahertz Broadband Lowâ€Reflection Metasurface by Controlling Phase Distributions. Advanced Optical Materials, 2015, 3, 1405-1410.	7.3	105
42	Realization of Multi-Modulation Schemes for Wireless Communication by Time-Domain Digital Coding Metasurface. IEEE Transactions on Antennas and Propagation, 2020, 68, 1618-1627.	5.1	105
43	A Thin Selfâ€Feeding Janus Metasurface for Manipulating Incident Waves and Emitting Radiation Waves Simultaneously. Annalen Der Physik, 2020, 532, 2000020.	2.4	98
44	Smart sensing metasurface with self-defined functions in dual polarizations. Nanophotonics, 2020, 9, 3271-3278.	6.0	97
45	Programmable Controls to Scattering Properties ofÂaÂRadiation Array. Laser and Photonics Reviews, 2021, 15, 2000449.	8.7	93
46	Illusion media: Generating virtual objects using realizable metamaterials. Applied Physics Letters, 2010, 96, .	3.3	91
47	Generation of spatial Bessel beams using holographic metasurface. Optics Express, 2015, 23, 7593.	3.4	89
48	An optically transparent metasurface for broadband microwave antireflection. Applied Physics Letters, 2018, 112, .	3.3	89
49	Shrinking an arbitrary object as one desires using metamaterials. Applied Physics Letters, 2011, 98, .	3.3	88
50	Negative refractions in uniaxially anisotropic chiral media. Physical Review B, 2006, 73, .	3.2	86
51	Broadband Allâ€Dielectric Magnifying Lens for Farâ€Field Highâ€Resolution Imaging. Advanced Materials, 2013, 25, 6963-6968.	21.0	85
52	Wireless Communication Based on Information Metasurfaces. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 1493-1510.	4.6	77
53	Tunable Electromagnetic Flow Control in Valley Photonic Crystal Waveguides. Physical Review Applied, 2018, 10, .	3.8	76
54	Transparently curved metamaterial with broadband millimeter wave absorption. Photonics Research, 2019, 7, 478.	7.0	75

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55	Arbitrary bending of electromagnetic waves using realizable inhomogeneous and anisotropic materials. Physical Review E, 2008, 78, 066607.	2.1	74
56	Broadband gradient index microwave quasi-optical elements based on non-resonant metamaterials. Optics Express, 2009, 17, 21030.	3.4	72
57	A reconfigurable active acoustic metalens. Applied Physics Letters, 2021, 118, .	3.3	72
58	Folded Transmitarray Antenna With Circular Polarization Based on Metasurface. IEEE Transactions on Antennas and Propagation, 2021, 69, 806-814.	5.1	71
59	Dynamically Realizing Arbitrary Multi-Bit Programmable Phases Using a 2-Bit Time-Domain Coding Metasurface. IEEE Transactions on Antennas and Propagation, 2020, 68, 2984-2992.	5.1	69
60	Controlling electromagnetic waves using tunable gradient dielectric metamaterial lens. Applied Physics Letters, 2008, 92, .	3.3	66
61	Full-State Controls of Terahertz Waves Using Tensor Coding Metasurfaces. ACS Applied Materials & Interfaces, 2017, 9, 21503-21514.	8.0	66
62	Layered high-gain lens antennas via discrete optical transformation. Applied Physics Letters, 2008, 93, .	3.3	65
63	Graphene-based anisotropic polarization meta-filter. Materials and Design, 2021, 206, 109768.	7.0	65
64	Editing Arbitrarily Linear Polarizations Using Programmable Metasurface. Physical Review Applied, 2020, 13, .	3.8	64
65	Highâ€Efficiency Synthesizer for Spatial Waves Based on Spaceâ€Timeâ€Coding Digital Metasurface. Laser and Photonics Reviews, 2020, 14, 1900133.	8.7	63
66	Arbitrarily dual-band components using simplified structures of conventional CRLH TLs. IEEE Transactions on Microwave Theory and Techniques, 2006, 54, 2902-2909.	4.6	62
67	Orbitalâ€Angularâ€Momentumâ€Encrypted Holography Based on Coding Information Metasurface. Advanced Optical Materials, 2021, 9, 2002155.	7.3	62
68	Localization of electromagnetic energy using a left-handed-medium slab. Physical Review B, 2005, 71, .	3.2	60
69	Radiation of planar electromagnetic waves by a line source in anisotropic metamaterials. Journal Physics D: Applied Physics, 2010, 43, 335406.	2.8	58
70	Linear and Nonlinear Polarization Syntheses and Their Programmable Controls based on Anisotropic Timeâ€Domain Digital Coding Metasurface. Small Structures, 2021, 2, 2000060.	12.0	58
71	REDUCTION OF RADAR CROSS SECTION BASED ON A METASURFACE. Progress in Electromagnetics Research, 2014, 146, 71-76.	4.4	56
72	Isotropic Holographic Metasurfaces for Dualâ€Functional Radiations without Mutual Interferences. Advanced Functional Materials, 2016, 26, 29-35.	14.9	56

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73	An Angle-Insensitive 3-Bit Reconfigurable Intelligent Surface. IEEE Transactions on Antennas and Propagation, 2022, 70, 8798-8808.	5.1	55
74	Multi-beam generations at pre-designed directions based on anisotropic zero-index metamaterials. Applied Physics Letters, 2011, 99, 131913.	3.3	54
75	Polarization Modulation for Wireless Communications Based on Metasurfaces. Advanced Functional Materials, 2021, 31, 2103379.	14.9	53
76	Waves in planar waveguide containing chiral nihility metamaterial. Optics Communications, 2007, 276, 317-321.	2.1	52
77	Smart Doppler Cloak Operating in Broad Band and Full Polarizations. Advanced Materials, 2021, 33, e2007966.	21.0	52
78	Increasing the Bandwidth of Microstrip Patch Antenna by Loading Compact Artificial Magneto-Dielectrics. IEEE Transactions on Antennas and Propagation, 2011, 59, 373-378.	5.1	48
79	Broadband Focusing Acoustic Lens Based on Fractal Metamaterials. Scientific Reports, 2016, 6, 35929.	3.3	47
80	Broadband fractal acoustic metamaterials for low-frequency sound attenuation. Applied Physics Letters, 2016, 109, .	3.3	46
81	Accurate and broadband manipulations of harmonic amplitudes and phases to reach 256 QAM millimeter-wave wireless communications by time-domain digital coding metasurface. National Science Review, 2022, 9, nwab134.	9.5	46
82	High Efficiency Polarizationâ€Encoded Holograms with Ultrathin Bilayer Spinâ€Decoupled Information Metasurfaces. Advanced Optical Materials, 2021, 9, 2001609.	7.3	44
83	Generation of radio vortex beams with designable polarization using anisotropic frequency selective surface. Applied Physics Letters, 2018, 112, .	3.3	43
84	Tunable Acoustic Metasurface for Three-Dimensional Wave Manipulations. Physical Review Applied, 2021, 15, .	3.8	43
85	Diffuse reflections by randomly gradient index metamaterials. Optics Letters, 2010, 35, 808.	3.3	42
86	INVESTIGATIONS OF THE ELECTROMAGNETIC PROPERTIES OF THREE-DIMENSIONAL ARBITRARILY-SHAPED CLOAKS. Progress in Electromagnetics Research, 2009, 94, 105-117.	4.4	41
87	On Channel Reciprocity in Reconfigurable Intelligent Surface Assisted Wireless Networks. IEEE Wireless Communications, 2021, 28, 94-101.	9.0	41
88	Virtual conversion from metal object to dielectric object using metamaterials. Optics Express, 2010, 18, 11276.	3.4	40
89	Digital Nonlinear Metasurface with Customizable Nonreciprocity. Advanced Functional Materials, 2019, 29, 1906635.	14.9	40
90	Fullâ€State Synthesis of Electromagnetic Fields using High Efficiency Phaseâ€Only Metasurfaces. Advanced Functional Materials, 2020, 30, 2004144.	14.9	40

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91	Controlling the Bandwidth of Terahertz Lowâ€Scattering Metasurfaces. Advanced Optical Materials, 2016, 4, 1773-1779.	7.3	39
92	Wideband High-Absorption Electromagnetic Absorber With Chaos Patterned Surface. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 197-201.	4.0	39
93	A broadband metamaterial cylindrical lens antenna. Science Bulletin, 2010, 55, 2066-2070.	1.7	37
94	Freeâ€Standing Metasurfaces for Highâ€Efficiency Transmitarrays for Controlling Terahertz Waves. Advanced Optical Materials, 2016, 4, 384-390.	7.3	37
95	Microwave curing of multidirectional carbon fiber reinforced polymer composites. Composite Structures, 2019, 212, 83-93.	5.8	37
96	Reconfigurable Intelligent Surfaces: Simplified-Architecture Transmittersâ€”From Theory to Implementations. Proceedings of the IEEE, 2022, 110, 1266-1289.	21.3	37
97	Experiments on evanescent-wave amplification and transmission using metamaterial structures. Physical Review B, 2006, 73, .	3.2	36
98	Asymmetric transmission of acoustic waves in a waveguide via gradient index metamaterials. Science Bulletin, 2019, 64, 808-813.	9.0	36
99	Arbitrary manipulations of dual harmonics and their wave behaviors based on space-time-coding digital metasurface. Applied Physics Reviews, 2020, 7, .	11.3	36
100	Information theory of metasurfaces. National Science Review, 2020, 7, 561-571.	9.5	34
101	Anisotropic Metasurface Holography in 3-D Space With High Resolution and Efficiency. IEEE Transactions on Antennas and Propagation, 2021, 69, 302-316.	5.1	34
102	Acoustic planar surface retroreflector. Physical Review Materials, 2018, 2, .	2.4	33
103	Intensityâ€Dependent Metasurface with Digitally Reconfigurable Distribution of Nonlinearity. Advanced Optical Materials, 2019, 7, 1900792.	7.3	33
104	Evanescent-wave amplification studied using a bilayer periodic circuit structure and its effective medium model. Physical Review B, 2007, 75, .	3.2	32
105	Transparent coupled membrane metamaterials with simultaneous microwave absorption and sound reduction. Optics Express, 2018, 26, 22916.	3.4	32
106	Digitalâ€Codingâ€Feeding Metasurfaces for Differently Polarized Wave Emission, Orbit Angular Momentum Generation, and Scattering Manipulation. Advanced Photonics Research, 2020, 1, 2000012.	3.6	31
107	Vortex beam generated by circular-polarized metasurface reflector antenna. Journal Physics D: Applied Physics, 2019, 52, 255306.	2.8	30
108	BST-silicon hybrid terahertz meta-modulator for dual-stimuli-triggered opposite transmission amplitude control. Nanophotonics, 2022, 11, 2075-2083.	6.0	30

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109	Design and Implementation of MIMO Transmission Based on Dual-Polarized Reconfigurable Intelligent Surface. IEEE Wireless Communications Letters, 2021, 10, 2155-2159.	5.0	29
110	A Highâ€Performance Nonlinear Metasurface for Spatialâ€Wave Absorption. Advanced Functional Materials, 2022, 32, .	14.9	29
111	Simultaneous in situ Direction Finding and Field Manipulation Based on Space-Time-Coding Digital Metasurface. IEEE Transactions on Antennas and Propagation, 2022, 70, 4774-4783.	5.1	28
112	Fast design of broadband terahertz diffusion metasurfaces. Optics Express, 2017, 25, 1050.	3.4	27
113	Harmonic information transitions of spatiotemporal metasurfaces. Light: Science and Applications, 2020, 9, 198.	16.6	27
114	Convolution operations on time-domain digital coding metasurface for beam manipulations of harmonics. Nanophotonics, 2020, 9, 2771-2781.	6.0	27
115	Reflection and refraction properties of plane waves on the interface of uniaxially anisotropic chiral media. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 3203.	1.5	26
116	Realization of broadband acoustic metamaterial lens with quasi-conformal mapping. Applied Physics Express, 2017, 10, 087202.	2.4	26
117	Circuit verification of tunneling effect in zero permittivity medium. Applied Physics Letters, 2007, 91, 234105.	3.3	25
118	Multiphysical Digital Coding Metamaterials for Independent Control of Broadband Electromagnetic and Acoustic Waves with a Large Variety of Functions. ACS Applied Materials & Interfaces, 2019, 11, 17050-17055.	8.0	25
119	Interplay Between RIS and AI in Wireless Communications: Fundamentals, Architectures, Applications, and Open Research Problems. IEEE Journal on Selected Areas in Communications, 2021, 39, 2271-2288.	14.0	25
120	Electromagnetic wave localization using a left-handed transmission-line superlens. Physical Review B, 2005, 72, .	3.2	23
121	Bifunctional metasurface for electromagnetic cloaking and illusion. Applied Physics Express, 2015, 8, 092601.	2.4	23
122	Impedanceâ€Matching Wavefrontâ€Transformation Lens Based on Acoustic Metamaterials. Advanced Materials Technologies, 2018, 3, 1800064.	5.8	23
123	High-power generation and transmission through a left-handed material. Physical Review B, 2005, 72, .	3.2	22
124	Enhanced Lightweight Multiscale Convolutional Neural Network for Rolling Bearing Fault Diagnosis. IEEE Access, 2020, 8, 217723-217734.	4.2	22
125	Partial focusing by indefinite complementary metamaterials. Physical Review B, 2008, 78, .	3.2	21
126	A SYMMETRICAL CIRCUIT MODEL DESCRIBING ALL KINDS OF CIRCUIT METAMATERIALS. Progress in Electromagnetics Research B, 2008, 5, 63-76.	1.0	21

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127	Tailoring polarization states of multiple beams that carry different topological charges of orbital angular momentums. Optics Express, 2018, 26, 31664.	3.4	21
128	Wideband Leaky-Wave Antennas Loaded With Gradient Metasurface for Fixed-Beam Radiations With Customized Tilting Angles. IEEE Transactions on Antennas and Propagation, 2020, 68, 161-170.	5.1	21
129	Glide-Symmetric Lens Antenna in Gap Waveguide Technology. IEEE Transactions on Antennas and Propagation, 2020, 68, 2612-2620.	5.1	21
130	A class of line-transformed cloaks with easily realizable constitutive parameters. Journal of Applied Physics, 2010, 107, 034911.	2.5	20
131	Holographic leaky-wave metasurfaces for dual-sensor imaging. Scientific Reports, 2016, 5, 18170.	3.3	20
132	Leaky-Wave Radiations by Modulating Surface Impedance on Subwavelength Corrugated Metal Structures. Scientific Reports, 2016, 6, 23974.	3.3	20
133	Dualâ€Physics Manipulation of Electromagnetic Waves by Systemâ€Level Design of Metasurfaces to Reach Extreme Control of Radiation Beams. Advanced Materials Technologies, 2017, 2, 1600196.	5.8	20
134	Asynchronous Spaceâ€Timeâ€Coding Digital Metasurface. Advanced Science, 2022, 9, .	11.2	19
135	Experimental verification of supercoupling and cloaking using mu-near-zero materials based on a waveguide. Applied Physics Letters, 2013, 103, 021908.	3.3	18
136	Three-Dimensional Anisotropic Zero-Index Lenses. IEEE Transactions on Antennas and Propagation, 2014, 62, 4135-4142.	5.1	18
137	Realization of an Ultra-thin Metasurface to Facilitate Wide Bandwidth, Wide Angle Beam Scanning. Scientific Reports, 2018, 8, 4761.	3.3	18
138	Multi-Beam Metasurface Antenna by Combining Phase Gradients and Coding Sequences. IEEE Access, 2019, 7, 62087-62094.	4.2	18
139	Controllable Reflection-Enhancement Metasurfaces via Amplification Excitation of Transistor Circuit. IEEE Transactions on Antennas and Propagation, 2021, 69, 1477-1482.	5.1	18
140	Negative refractions and backward waves in biaxially anisotropic chiral media. Optics Express, 2006, 14, 6322.	3.4	17
141	Dual-Polarized RIS-Assisted Mobile Communications. IEEE Transactions on Wireless Communications, 2022, 21, 591-606.	9.2	17
142	Multilayered Graphene-Assisted Broadband Scattering Suppression through an Ultrathin and Ultralight Metasurface. ACS Applied Materials & Interfaces, 2021, 13, 7698-7704.	8.0	17
143	Guided modes in a planar anisotropic biaxial slab with partially negative permittivity and permeability. Applied Physics Letters, 2005, 87, 174102.	3.3	16
144	Arbitrarily ellipticalâ€“cylindrical invisible cloaking. Journal Physics D: Applied Physics, 2008, 41, 199801-199801.	2.8	16

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145	Routing Acoustic Waves via a Metamaterial with Extreme Anisotropy. Physical Review Applied, 2019, 12, .	3.8	16
146	Wideband circularly polarized aperture coupled DRA array with sequential-phase feed at X-band. AEJ - Alexandria Engineering Journal, 2020, 59, 4901-4908.	6.4	16
147	Control of the harmonic near-field distributions by an active metasurface loaded with pin diodes. Photonics Research, 2021, 9, 344.	7.0	16
148	Launcher of high-order Bessel vortex beam carrying orbital angular momentum by designing anisotropic holographic metasurface. Applied Physics Letters, 2020, 117, .	3.3	16
149	Acoustic Magnifying Lens for Farâ€Field High Resolution Imaging Based on Transformation Acoustics. Advanced Materials Technologies, 2017, 2, 1700089.	5.8	15
150	Manipulation of Electromagnetic and Acoustic Wave Behaviors via Shared Digital Coding Metallic Metasurfaces. Advanced Intelligent Systems, 2019, 1, 1900038.	6.1	15
151	The Future of Wireless?. Electronics Letters, 2019, 55, 360-361.	1.0	15
152	Linearly Sweeping Leaky-Wave Antenna With High Scanning Rate. IEEE Transactions on Antennas and Propagation, 2021, 69, 3214-3223.	5.1	15
153	Lateral shifts of optical beams on the interface of anisotropic metamaterial. Journal of Applied Physics, 2006, 99, 066114.	2.5	14
154	X-band high directivity lens antenna realized by gradient index metamaterials. , 2009, , .		14
155	Surface Fourier-transform lens using a metasurface. Journal Physics D: Applied Physics, 2015, 48, 035107.	2.8	14
156	Experimental demonstration of compact spoof localized surface plasmons. Optics Letters, 2016, 41, 5418.	3.3	14
157	A reflective acoustic meta-diffuser based on the coding meta-surface. Journal of Applied Physics, 2019, 126, .	2.5	14
158	Simultaneous Conversion of Polarization and Frequency via Timeâ€Đivisionâ€Multiplexing Metasurfaces. Advanced Optical Materials, 2021, 9, 2101043.	7.3	14
159	Lossy and retardation effects on the localization of EM waves using a left-handed medium slab. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 336, 235-244.	2.1	13
160	Transformation of Different Kinds of Electromagnetic Waves Using Metamaterials. Journal of Electromagnetic Waves and Applications, 2009, 23, 583-592.	1.6	13
161	A Complementary Lens Based on Broadband Metamaterials. Journal of Electromagnetic Waves and Applications, 2010, 24, 93-101.	1.6	13
162	A Highly Directive Slot Antenna With Sidewall Corrugated Structure. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 1582-1585.	4.0	13

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163	1-bit reconfigurable transmitarray with low loss and wide bandwidth. New Journal of Physics, 2021, 23, 065006.	2.9	13
164	One-bit quantization is good for programmable coding metasurfaces. Science China Information Sciences, 2022, 65, .	4.3	13
165	A Planar 4-Bit Reconfigurable Antenna Array Based on the Design Philosophy of Information Metasurfaces. Engineering, 2022, 17, 64-74.	6.7	13
166	Modified Luneburg Lens Based on Metamaterials. International Journal of Antennas and Propagation, 2015, 2015, 1-6.	1.2	12
167	Acoustic tunable metamaterials based on anisotropic unit cells. Applied Physics Letters, 2019, 115, 231902.	3.3	12
168	Metasurfaceâ€Based Spatial Phasers for Analogue Signal Processing. Advanced Optical Materials, 2020, 8, 2000128.	7.3	12
169	User Tracking and Wireless Digital Transmission through a Programmable Metasurface. Advanced Materials Technologies, 2021, 6, 2001254.	5.8	12
170	Spatial power combination within fan-shaped region using anisotropic zero-index metamaterials. Applied Physics Letters, 2012, 101, 141902.	3.3	11
171	Switchable zero-index metamaterials by loading positive-intrinsic-negative diodes. Applied Physics Letters, 2014, 104, 053504.	3.3	11
172	Concentric designer plasmon hybridization in deep subwavelength metamaterial resonator. Applied Physics Letters, 2019, 115, .	3.3	11
173	Multiâ€Band Tunable Chiral Metamaterial for Asymmetric Transmission and Absorption of Linearly Polarized Electromagnetic Waves. Advanced Theory and Simulations, 2020, 3, 2000179.	2.8	11
174	Anisotropic and nonlinear metasurface for multiple functions. Science China Information Sciences, 2021, 64, 1.	4.3	11
175	Joint Modulations of Electromagnetic Waves and Digital Signals on a Single Metasurface Platform to Reach Programmable Wireless Communications. Engineering, 2022, 8, 86-95.	6.7	11
176	Realization of Reconfigurable Intelligent Surface-Based Alamouti Space-Time Transmission. , 2020, , .		11
177	Macromodeling of Reconfigurable Intelligent Surface Based on Microwave Network Theory. IEEE Transactions on Antennas and Propagation, 2022, 70, 8707-8717.	5.1	11
178	Design and rigorous analysis of transformation-optics scaling devices. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2013, 30, 1698.	1.5	10
179	A Metamaterial Route to Realize Acoustic Insulation and Anisotropic Electromagnetic Manipulation Simultaneously. Advanced Materials Technologies, 2018, 3, 1800161.	5.8	10
180	Reflection phase dispersion editing generates wideband invisible acoustic Huygens's metasurface. Journal of the Acoustical Society of America, 2019, 146, 166-171.	1.1	10

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181	Metasurfaces: Wireless Communications through a Simplified Architecture Based on Timeâ€Domain Digital Coding Metasurface (Adv. Mater. Technol. 7/2019). Advanced Materials Technologies, 2019, 4, 1970037.	5.8	10
182	Broadband Folded Reflectarray Fed by a Dielectric Resonator Antenna. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 178-182.	4.0	10
183	An Ultrawideband Three-Dimensional Bandpass Frequency Selective Surface. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1238-1242.	4.0	10
184	A compact structure for energy localization using a thin grounded left-handed medium slab. Optics Express, 2005, 13, 770.	3.4	9
185	Structure for localizing electromagnetic waves with a left-handed-medium slab and a conducting plane. Optics Letters, 2005, 30, 1216.	3.3	9
186	Infinite guided modes in a planar waveguide with a biaxially anisotropic metamaterial. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 1989.	1.5	9
187	A single metamaterial plate as bandpass filter, transparent wall, and polarization converter controlled by polarizations. Applied Physics Letters, 2014, 105, 081908.	3.3	9
188	Generation of multiband spoof surface acoustic waves via high-order modes. Physical Review B, 2018, 97, .	3.2	9
189	Ultrathin and flexible directional coupler with arbitrary coupling level using s-shaped spoof surface plasmon polariton coupled-line. Applied Physics Express, 2019, 12, 054005.	2.4	9
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