Tong Cai

List of Publications by Year
in descending order

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Version: 2024-02-01

78 papers	3,394 citations	159358 30 h-index	143772 57 g-index
78 all docs	78 docs citations	78 times ranked	2084 citing authors

#	Article	IF	Citations
1	Highly Efficient and Broadband Achromatic Transmission Metasurface to Refract and Focus in Microwave Region. Laser and Photonics Reviews, 2022, 16, .	4.4	12
2	Designing an ultra-thin and wideband low-frequency absorber based on lumped resistance. Optics Express, 2022, 30, 914.	1.7	15
3	In Situ Customized Illusion Enabled by Global Metasurface Reconstruction. Advanced Functional Materials, 2022, 32, .	7.8	31
4	Bifunctional spoof surface plasmon polariton meta-coupler using anisotropic transmissive metasurface. Nanophotonics, 2022, 11, 1177-1185.	2.9	10
5	Stealth radome with an ultra-broad transparent window and a high selectivity transition band. Optics Express, 2022, 30, 16009.	1.7	3
6	Broadband Folded Transmitarray Antenna With Ultralow-Profile Based on Metasurfaces. IEEE Transactions on Antennas and Propagation, 2021, 69, 7017-7022.	3.1	34
7	High-performance meta-absorber for the surface wave under the spoof surface plasmon polariton mode. Optics Express, 2021, 29, 7558.	1.7	7
8	Ultra-light planar meta-absorber with wideband and full-polarization properties. Optics Express, 2021, 29, 6434.	1.7	31
9	Dualâ€Sensitivity Terahertz Metasensor Based on Latticeâ€“Toroidalâ€Coupled Resonance. Advanced Photonics Research, 2021, 2, 2000175.	1.7	11
10	Multifunctional Metasurfaces: Design Principles and Device Realizations. Synthesis Lectures on Materials and Optics, 2021, 2, 1-184.	0.2	1
11	Ultra-Thin and Broadband Surface Wave Meta-Absorber. Optics Express, 2021, 29, 19193-19201.	1.7	11
12	Conformal Polarization Conversion Metasurface for Omni-Directional Circular Polarization Antenna Application. IEEE Transactions on Antennas and Propagation, 2021, 69, 3349-3358.	3.1	25
13	Ultra-broadband transmissive gradient metasurface based on the topologically coding optimization method. Optics Express, 2021, 29, 22136.	1.7	8
14	Fundamentals and applications of spin-decoupled Pancharatnamâ€”Berry metasurfaces. Frontiers of Optoelectronics, 2021, 14, 134-147.	1.9	24
15	Demonstration of Spiderâ€Eyesâ€Like Intelligent Antennas for Dynamically Perceiving Incoming Waves. Advanced Intelligent Systems, 2021, 3, 2100066.	3.3	16
16	Circularly Polarized Transmissive Metaâ€Holograms with High Fidelity. Advanced Photonics Research, 2021, 2, 2100076.	1.7	5
17	Active Control of Terahertz Toroidal Excitations in a Hybrid Metasurface with an Electrically Biased Silicon Layer. Advanced Photonics Research, 2021, 2, 2100103.	1.7	19
18	Airy Beam Generation: Approaching Ideal Efficiency and Ultra Wideband with Reflective and Transmissive Metasurfaces. Advanced Optical Materials, 2020, 8, 2000860.	3.6	44

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19	Planar Spoof Surface Plasmon Polariton Antenna by Using Transmissive Phase Gradient Metasurface. Annalen Der Physik, 2020, 532, 2000008.	0.9	5
20	3Dâ€Printed Curved Metasurface with Multifunctional Wavefronts. Advanced Optical Materials, 2020, 8, 2000129.	3.6	20
21	High-Performance Transmissive Broadband Vortex Beam Generator Based on Pancharatnamâ€“Berry Metasurface. IEEE Access, 2020, 8, 111802-111810.	2.6	16
22	Siliconâ€Based Terahertz Metaâ€Devices for Electrical Modulation of Fano Resonance and Transmission Amplitude. Advanced Optical Materials, 2020, 8, 2000449.	3.6	52
23	Tunable metasurface with controllable polarizations and reflection/transmission properties. Journal Physics D: Applied Physics, 2020, 53, 155102.	1.3	12
24	Ultrawideband chromatic aberration-free meta-mirrors. Advanced Photonics, 2020, 3, .	6.2	63
25	Dual-band transmissive circular polarization generator with high angular stability. Optics Express, 2020, 28, 14995.	1.7	31
26	Ultra-thin and high-efficiency full-space Pancharatnam-Berry metasurface. Optics Express, 2020, 28, 31216.	1.7	31
27	Helicity-dependent metasurfaces employing receiver-transmitter meta-atoms for full-space wavefront manipulation. Optics Express, 2020, 28, 27575.	1.7	24
28	High-efficiency Receiver-Transmitter Metasurfaces with Independent Control of Polarization, Amplitude and Phase. , 2020, , .		6
29	Bifunctional circularly-polarized lenses with simultaneous geometrical and propagating phase control metasurfaces. Journal Physics D: Applied Physics, 2019, 52, 465105.	1.3	12
30	Wideband Transparent Beam-Forming Metadevice with Amplitude- and Phase-Controlled Metasurface. Physical Review Applied, 2019, 11, .	1.5	80
31	High-Performance and Ultra-Broadband Metamaterial Absorber Based on Mixed Absorption Mechanisms. IEEE Access, 2019, 7, 57259-57266.	2.6	40
32	Dual-frequency geometric phase metasurface for dual-mode vortex beam generator. Journal Physics D: Applied Physics, 2019, 52, 255002.	1.3	17
33	High-efficiency transparent vortex beam generator based on ultrathin Pancharatnamâ€“Berry metasurfaces. Optics Express, 2019, 27, 1816.	1.7	30
34	High-efficiency and ultra-broadband asymmetric transmission metasurface based on topologically coding optimization method. Optics Express, 2019, 27, 2844.	1.7	36
35	High-performance and broadband chirality-dependent absorber based on planar spiral metasurface. Optics Express, 2019, 27, 14942.	1.7	13
36	Three-dimensional ultra-broadband absorber based on novel zigzag-shaped structure. Optics Express, 2019, 27, 32835.	1.7	25

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37	High-efficiency dual-modes vortex beam generator with polarization-dependent transmission and reflection properties. Scientific Reports, 2018, 8, 6422.	1.6	27
38	High-Efficiency Metasurface With Polarization-Dependent Transmission and Reflection Properties for Both Reflectarray and Transmitarray. IEEE Transactions on Antennas and Propagation, 2018, 66, 3219-3224.	3.1	117
39	Bifunctional Pancharatnamâ€Berry Metasurface with Highâ€Efficiency Helicityâ€Dependent Transmissions and Reflections. Annalen Der Physik, 2018, 530, 1700321.	0.9	54
40	Deterministic Approach to Achieve Broadband Polarization-Independent Diffusive Scatterings Based on Metasurfaces. ACS Photonics, 2018, 5, 1691-1702.	3.2	113
41	Design of Broadband Vortex Generator. , 2018, , .		0
42	High-performance broadband vortex beam generator based on double-layered reflective metasurface. AIP Advances, 2018, 8, .	0.6	18
43	Trifunctional metasurfaces: concept and characterizations. Optics Express, 2018, 26, 17447.	1.7	26
44	Phase- and Amplitude-Control Metasurfaces for Antenna Main-Lobe and Sidelobe Manipulations. IEEE Transactions on Antennas and Propagation, 2018, 66, 5121-5129.	3.1	115
45	Multifunctional Metasurfaces Based on the â€œMergingâ€•Concept and Anisotropic Single-Structure Meta-Atoms. Applied Sciences (Switzerland), 2018, 8, 555.	1.3	39
46	Ultra-thin circularly polarized lens antenna based on single-layered transparent metasurface. Chinese Physics B, 2018, 27, 084101.	0.7	16
47	Dual-Mode Transmissive Metasurface and Its Applications in Multibeam Transmitarray. IEEE Transactions on Antennas and Propagation, 2017, 65, 1797-1806.	3.1	131
48	High-efficiency reflectarray antenna using a compact focusing meta-lens. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	4
49	High-Performance Transmissive Meta-Surface for C -/ X -Band Lens Antenna Application. IEEE Transactions on Antennas and Propagation, 2017, 65, 3598-3606.	3.1	54
50	High-efficiency chirality-modulated spoof surface plasmon meta-coupler. Scientific Reports, 2017, 7, 1354.	1.6	77
51	An X-band bifunctional antenna using anisotropic transparent meta-surface. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	1
52	Flexible and polarization-controllable diffusion metasurface with optical transparency. Journal Physics D: Applied Physics, 2017, 50, 465102.	1.3	24
53	High-Efficiency and Full-Space Manipulation of Electromagnetic Wave Fronts with Metasurfaces. Physical Review Applied, 2017, 8, .	1.5	190
54	Transmissive focusing meta-surface with nearly 100% efficiency. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	11

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55	Random Combinatorial Gradient Metasurface for Broadband, Wide-Angle and Polarization-Independent Diffusion Scattering. Scientific Reports, 2017, 7, 16560.	1.6	25
56	Highâ€Performance Bifunctional Metasurfaces in Transmission and Reflection Geometries. Advanced Optical Materials, 2017, 5, 1600506.	3.6	208
57	Compact Dual-Resonance Element With Low Phase Sensitivity for Offset Reflectarray Antennas. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 1213-1216.	2.4	4
58	Broadband RCS Reduction Based on Spiral-Coded Metasurface. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 3188-3191.	2.4	57
59	Novel fabry-pÃ©rot cavity antenna with enhanced beam steering property using reconfigurable meta-surface. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	10
60	Polarization-independent broadband meta-surface for bifunctional antenna. Optics Express, 2016, 24, 22606.	1.7	21
61	Tunable Pancharatnamâ€“Berry metasurface for dynamical and high-efficiency anomalous reflection. Optics Express, 2016, 24, 27836.	1.7	69
62	Dynamical control on helicity of electromagnetic waves by tunable metasurfaces. Scientific Reports, 2016, 6, 27503.	1.6	112
63	Tunable microwave metasurfaces for high-performance operations: dispersion compensation and dynamical switch. Scientific Reports, 2016, 6, 38255.	1.6	113
64	Polarization-controlled bifunctional antenna based on 2-D anisotropic Gradient Metasurface. , 2016, , .		1
65	Multifunctional Microstrip Array Combining a Linear Polarizer and Focusing Metasurface. IEEE Transactions on Antennas and Propagation, 2016, 64, 3676-3682.	3.1	135
66	Enhancement of gain and directivity for microstrip antenna using negative permeability metamaterial. AEU - International Journal of Electronics and Communications, 2016, 70, 880-885.	1.7	51
67	Ultra-Thin Polarization Beam Splitter Using 2-D Transmissive Phase Gradient Metasurface. IEEE Transactions on Antennas and Propagation, 2015, 63, 5629-5636.	3.1	119
68	Low-Profile Compact Circularly-Polarized Antenna Based on Fractal Metasurface and Fractal Resonator. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1072-1076.	2.4	73
69	Novel magneto-electro-dielectric waveguided metamaterials and its applications to microstrip patch antennas. Applied Physics A: Materials Science and Processing, 2015, 118, 63-73.	1.1	1
70	Two-dimensional fractal metasurface and its application to low profile circularly polarized antennas. Journal of Electromagnetic Waves and Applications, 2015, 29, 410-423.	1.0	2
71	Compact Microstrip Antenna With Enhanced Bandwidth by Loading Magneto-Electro-Dielectric Planar Waveguided Metamaterials. IEEE Transactions on Antennas and Propagation, 2015, 63, 2306-2311.	3.1	66
72	X-Band Phase-Gradient Metasurface for High-Gain Lens Antenna Application. IEEE Transactions on Antennas and Propagation, 2015, 63, 5144-5149.	3.1	196

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73	An Octave-Bandwidth Half Maxwell Fish-Eye Lens Antenna Using Three-Dimensional Gradient-Index Fractal Metamaterials. IEEE Transactions on Antennas and Propagation, 2014, 62, 4823-4828.	3.1	80
74	Miniaturization of 3-D Anistropic Zero-Refractive-Index Metamaterials With Application to Directive Emissions. IEEE Transactions on Antennas and Propagation, 2014, 62, 3141-3149.	3.1	56
75	Analysis and Design of Novel 2-D Transmission-Line Metamaterial and Its Application to Compact Dual-Band Antenna. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 555-558.	2.4	15
76	Compact dual-band circular polarizer using twisted Hilbert-shaped chiral metamaterial. Optics Express, 2013, 21, 24912.	1.7	142
77	High Performance Metasurface Antennas. , 0, , .		1
78	Three-dimensional Direct Current Invisibility Cloak Produced with Bulk Materials. Optics Express, 0, , .	1.7	0