

Tong Cai

List of Publications by Year in descending order

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78
papers

3,394
citations

159358

30
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143772

57
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78
all docs

78
docs citations

78
times ranked

2084
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Performance Bifunctional Metasurfaces in Transmission and Reflection Geometries. <i>Advanced Optical Materials</i> , 2017, 5, 1600506.	3.6	208
2	X-Band Phase-Gradient Metasurface for High-Gain Lens Antenna Application. <i>IEEE Transactions on Antennas and Propagation</i> , 2015, 63, 5144-5149.	3.1	196
3	High-Efficiency and Full-Space Manipulation of Electromagnetic Wave Fronts with Metasurfaces. <i>Physical Review Applied</i> , 2017, 8, .	1.5	190
4	Compact dual-band circular polarizer using twisted Hilbert-shaped chiral metamaterial. <i>Optics Express</i> , 2013, 21, 24912.	1.7	142
5	Multifunctional Microstrip Array Combining a Linear Polarizer and Focusing Metasurface. <i>IEEE Transactions on Antennas and Propagation</i> , 2016, 64, 3676-3682.	3.1	135
6	Dual-Mode Transmissive Metasurface and Its Applications in Multibeam Transmitarray. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 1797-1806.	3.1	131
7	Ultra-Thin Polarization Beam Splitter Using 2-D Transmissive Phase Gradient Metasurface. <i>IEEE Transactions on Antennas and Propagation</i> , 2015, 63, 5629-5636.	3.1	119
8	High-Efficiency Metasurface With Polarization-Dependent Transmission and Reflection Properties for Both Reflectarray and Transmitarray. <i>IEEE Transactions on Antennas and Propagation</i> , 2018, 66, 3219-3224.	3.1	117
9	Phase- and Amplitude-Control Metasurfaces for Antenna Main-Lobe and Sidelobe Manipulations. <i>IEEE Transactions on Antennas and Propagation</i> , 2018, 66, 5121-5129.	3.1	115
10	Tunable microwave metasurfaces for high-performance operations: dispersion compensation and dynamical switch. <i>Scientific Reports</i> , 2016, 6, 38255.	1.6	113
11	Deterministic Approach to Achieve Broadband Polarization-Independent Diffusive Scatterings Based on Metasurfaces. <i>ACS Photonics</i> , 2018, 5, 1691-1702.	3.2	113
12	Dynamical control on helicity of electromagnetic waves by tunable metasurfaces. <i>Scientific Reports</i> , 2016, 6, 27503.	1.6	112
13	An Octave-Bandwidth Half Maxwell Fish-Eye Lens Antenna Using Three-Dimensional Gradient-Index Fractal Metamaterials. <i>IEEE Transactions on Antennas and Propagation</i> , 2014, 62, 4823-4828.	3.1	80
14	Wideband Transparent Beam-Forming Metadevice with Amplitude- and Phase-Controlled Metasurface. <i>Physical Review Applied</i> , 2019, 11, .	1.5	80
15	High-efficiency chirality-modulated spoof surface plasmon meta-coupler. <i>Scientific Reports</i> , 2017, 7, 1354.	1.6	77
16	Low-Profile Compact Circularly-Polarized Antenna Based on Fractal Metasurface and Fractal Resonator. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2015, 14, 1072-1076.	2.4	73
17	Tunable Pancharatnam-Berry metasurface for dynamical and high-efficiency anomalous reflection. <i>Optics Express</i> , 2016, 24, 27836.	1.7	69
18	Compact Microstrip Antenna With Enhanced Bandwidth by Loading Magneto-Electro-Dielectric Planar Waveguided Metamaterials. <i>IEEE Transactions on Antennas and Propagation</i> , 2015, 63, 2306-2311.	3.1	66

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19	Ultrawideband chromatic aberration-free meta-mirrors. <i>Advanced Photonics</i> , 2020, 3, .	6.2	63
20	Broadband RCS Reduction Based on Spiral-Coded Metasurface. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2017, 16, 3188-3191.	2.4	57
21	Miniaturization of 3-D Anisotropic Zero-Refractive-Index Metamaterials With Application to Directive Emissions. <i>IEEE Transactions on Antennas and Propagation</i> , 2014, 62, 3141-3149.	3.1	56
22	High-Performance Transmissive Meta-Surface for $\text{S}^{\text{C}}\text{S}^{\text{C}}/\text{X}^{\text{S}}\text{S}^{\text{C}}$ -Band Lens Antenna Application. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 3598-3606.	3.1	54
23	Bifunctional Pancharatnam-Berry Metasurface with High-Efficiency Helicity-Dependent Transmissions and Reflections. <i>Annalen Der Physik</i> , 2018, 530, 1700321.	0.9	54
24	Silicon-Based Terahertz Meta-Devices for Electrical Modulation of Fano Resonance and Transmission Amplitude. <i>Advanced Optical Materials</i> , 2020, 8, 2000449.	3.6	52
25	Enhancement of gain and directivity for microstrip antenna using negative permeability metamaterial. <i>AEU - International Journal of Electronics and Communications</i> , 2016, 70, 880-885.	1.7	51
26	Airy Beam Generation: Approaching Ideal Efficiency and Ultra Wideband with Reflective and Transmissive Metasurfaces. <i>Advanced Optical Materials</i> , 2020, 8, 2000860.	3.6	44
27	High-Performance and Ultra-Broadband Metamaterial Absorber Based on Mixed Absorption Mechanisms. <i>IEEE Access</i> , 2019, 7, 57259-57266.	2.6	40
28	Multifunctional Metasurfaces Based on the "Merging" Concept and Anisotropic Single-Structure Meta-Atoms. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 555.	1.3	39
29	High-efficiency and ultra-broadband asymmetric transmission metasurface based on topologically coding optimization method. <i>Optics Express</i> , 2019, 27, 2844.	1.7	36
30	Broadband Folded Transmitarray Antenna With Ultralow-Profile Based on Metasurfaces. <i>IEEE Transactions on Antennas and Propagation</i> , 2021, 69, 7017-7022.	3.1	34
31	Ultra-light planar meta-absorber with wideband and full-polarization properties. <i>Optics Express</i> , 2021, 29, 6434.	1.7	31
32	Dual-band transmissive circular polarization generator with high angular stability. <i>Optics Express</i> , 2020, 28, 14995.	1.7	31
33	Ultra-thin and high-efficiency full-space Pancharatnam-Berry metasurface. <i>Optics Express</i> , 2020, 28, 31216.	1.7	31
34	In Situ Customized Illusion Enabled by Global Metasurface Reconstruction. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	31
35	High-efficiency transparent vortex beam generator based on ultrathin Pancharatnam-Berry metasurfaces. <i>Optics Express</i> , 2019, 27, 1816.	1.7	30
36	High-efficiency dual-modes vortex beam generator with polarization-dependent transmission and reflection properties. <i>Scientific Reports</i> , 2018, 8, 6422.	1.6	27

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37	Trifunctional metasurfaces: concept and characterizations. <i>Optics Express</i> , 2018, 26, 17447.	1.7	26
38	Random Combinatorial Gradient Metasurface for Broadband, Wide-Angle and Polarization-Independent Diffusion Scattering. <i>Scientific Reports</i> , 2017, 7, 16560.	1.6	25
39	Conformal Polarization Conversion Metasurface for Omni-Directional Circular Polarization Antenna Application. <i>IEEE Transactions on Antennas and Propagation</i> , 2021, 69, 3349-3358.	3.1	25
40	Three-dimensional ultra-broadband absorber based on novel zigzag-shaped structure. <i>Optics Express</i> , 2019, 27, 32835.	1.7	25
41	Flexible and polarization-controllable diffusion metasurface with optical transparency. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 465102.	1.3	24
42	Fundamentals and applications of spin-decoupled Pancharatnamâ€”Berry metasurfaces. <i>Frontiers of Optoelectronics</i> , 2021, 14, 134-147.	1.9	24
43	Helicity-dependent metasurfaces employing receiver-transmitter meta-atoms for full-space wavefront manipulation. <i>Optics Express</i> , 2020, 28, 27575.	1.7	24
44	Polarization-independent broadband meta-surface for bifunctional antenna. <i>Optics Express</i> , 2016, 24, 22606.	1.7	21
45	3Dâ€”Printed Curved Metasurface with Multifunctional Wavefronts. <i>Advanced Optical Materials</i> , 2020, 8, 2000129.	3.6	20
46	Active Control of Terahertz Toroidal Excitations in a Hybrid Metasurface with an Electrically Biased Silicon Layer. <i>Advanced Photonics Research</i> , 2021, 2, 2100103.	1.7	19
47	High-performance broadband vortex beam generator based on double-layered reflective metasurface. <i>AIP Advances</i> , 2018, 8, .	0.6	18
48	Dual-frequency geometric phase metasurface for dual-mode vortex beam generator. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 255002.	1.3	17
49	Ultra-thin circularly polarized lens antenna based on single-layered transparent metasurface. <i>Chinese Physics B</i> , 2018, 27, 084101.	0.7	16
50	High-Performance Transmissive Broadband Vortex Beam Generator Based on Pancharatnamâ€”Berry Metasurface. <i>IEEE Access</i> , 2020, 8, 111802-111810.	2.6	16
51	Demonstration of Spiderâ€”Eyesâ€”Like Intelligent Antennas for Dynamically Perceiving Incoming Waves. <i>Advanced Intelligent Systems</i> , 2021, 3, 2100066.	3.3	16
52	Analysis and Design of Novel 2-D Transmission-Line Metamaterial and Its Application to Compact Dual-Band Antenna. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2014, 13, 555-558.	2.4	15
53	Designing an ultra-thin and wideband low-frequency absorber based on lumped resistance. <i>Optics Express</i> , 2022, 30, 914.	1.7	15
54	High-performance and broadband chirality-dependent absorber based on planar spiral metasurface. <i>Optics Express</i> , 2019, 27, 14942.	1.7	13

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55	Bifunctional circularly-polarized lenses with simultaneous geometrical and propagating phase control metasurfaces. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 465105.	1.3	12
56	Tunable metasurface with controllable polarizations and reflection/transmission properties. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 155102.	1.3	12
57	Highly Efficient and Broadband Achromatic Transmission Metasurface to Refract and Focus in Microwave Region. <i>Laser and Photonics Reviews</i> , 2022, 16, .	4.4	12
58	Transmissive focusing meta-surface with nearly 100% efficiency. <i>Applied Physics A: Materials Science and Processing</i> , 2017, 123, 1.	1.1	11
59	Dual-Sensitivity Terahertz Metasensor Based on Lattice-Toroidal-Coupled Resonance. <i>Advanced Photonics Research</i> , 2021, 2, 2000175.	1.7	11
60	Ultra-Thin and Broadband Surface Wave Meta-Absorber. <i>Optics Express</i> , 2021, 29, 19193-19201.	1.7	11
61	Novel fabry-pérot cavity antenna with enhanced beam steering property using reconfigurable meta-surface. <i>Applied Physics A: Materials Science and Processing</i> , 2017, 123, 1.	1.1	10
62	Bifunctional spoof surface plasmon polariton meta-coupler using anisotropic transmissive metasurface. <i>Nanophotonics</i> , 2022, 11, 1177-1185.	2.9	10
63	Ultra-broadband transmissive gradient metasurface based on the topologically coding optimization method. <i>Optics Express</i> , 2021, 29, 22136.	1.7	8
64	High-performance meta-absorber for the surface wave under the spoof surface plasmon polariton mode. <i>Optics Express</i> , 2021, 29, 7558.	1.7	7
65	High-efficiency Receiver-Transmitter Metasurfaces with Independent Control of Polarization, Amplitude and Phase. , 2020, , .		6
66	Planar Spoof Surface Plasmon Polariton Antenna by Using Transmissive Phase Gradient Metasurface. <i>Annalen Der Physik</i> , 2020, 532, 2000008.	0.9	5
67	Circularly Polarized Transmissive Meta-Holograms with High Fidelity. <i>Advanced Photonics Research</i> , 2021, 2, 2100076.	1.7	5
68	High-efficiency reflectarray antenna using a compact focusing meta-lens. <i>Applied Physics A: Materials Science and Processing</i> , 2017, 123, 1.	1.1	4
69	Compact Dual-Resonance Element With Low Phase Sensitivity for Offset Reflectarray Antennas. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2017, 16, 1213-1216.	2.4	4
70	Stealth radome with an ultra-broad transparent window and a high selectivity transition band. <i>Optics Express</i> , 2022, 30, 16009.	1.7	3
71	Two-dimensional fractal metasurface and its application to low profile circularly polarized antennas. <i>Journal of Electromagnetic Waves and Applications</i> , 2015, 29, 410-423.	1.0	2
72	Novel magneto-electro-dielectric waveguided metamaterials and its applications to microstrip patch antennas. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 118, 63-73.	1.1	1

#	ARTICLE	IF	CITATIONS
73	Polarization-controlled bifunctional antenna based on 2-D anisotropic Gradient Metasurface. , 2016, , .		1
74	An X-band bifunctional antenna using anisotropic transparent meta-surface. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	1
75	High Performance Metasurface Antennas. , 0, , .		1
76	Multifunctional Metasurfaces: Design Principles and Device Realizations. Synthesis Lectures on Materials and Optics, 2021, 2, 1-184.	0.2	1
77	Design of Broadband Vortex Generator. , 2018, , .		0
78	Three-dimensional Direct Current Invisibility Cloak Produced with Bulk Materials. Optics Express, 0, , .	1.7	0