

Hua Cheng

List of Publications by Year in descending order

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100
papers

5,205
citations

61984

43
h-index

88630

70
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100
all docs

100
docs citations

100
times ranked

3568
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamically tunable plasmonically induced transparency in periodically patterned graphene nanostrips. <i>Applied Physics Letters</i> , 2013, 103, 203112.	3.3	249
2	Realization of broadband cross-polarization conversion in transmission mode in the terahertz region using a single-layer metasurface. <i>Optics Letters</i> , 2015, 40, 3185.	3.3	212
3	Coding Acoustic Metasurfaces. <i>Advanced Materials</i> , 2017, 29, 1603507.	21.0	207
4	Simultaneous Control of Light Polarization and Phase Distributions Using Plasmonic Metasurfaces. <i>Advanced Functional Materials</i> , 2015, 25, 704-710.	14.9	178
5	High-quality-factor multiple Fano resonances for refractive index sensing. <i>Optics Letters</i> , 2018, 43, 1842.	3.3	170
6	Metasurface-empowered Optical Multiplexing and Multifunction. <i>Advanced Materials</i> , 2020, 32, e1805912.	21.0	169
7	Dynamically tunable broadband mid-infrared cross polarization converter based on graphene metamaterial. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	152
8	Ultrahighly Saturated Structural Colors Enhanced by Multipolar-Modulated Metasurfaces. <i>Nano Letters</i> , 2019, 19, 4221-4228.	9.1	146
9	Polarization insensitive and omnidirectional broadband near perfect planar metamaterial absorber in the near infrared regime. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	137
10	Realizing Broadband and Invertible Linear-to-circular Polarization Converter with Ultrathin Single-layer Metasurface. <i>Scientific Reports</i> , 2016, 5, 18106.	3.3	128
11	From Single-dimensional to Multidimensional Manipulation of Optical Waves with Metasurfaces. <i>Advanced Materials</i> , 2019, 31, e1802458.	21.0	127
12	Metasurface Enabled Wide-angle Fourier Lens. <i>Advanced Materials</i> , 2018, 30, e1706368.	21.0	112
13	Mid-infrared tunable optical polarization converter composed of asymmetric graphene nanocrosses. <i>Optics Letters</i> , 2013, 38, 1567.	3.3	110
14	Dynamically Tunable Broadband Infrared Anomalous Refraction Based on Graphene Metasurfaces. <i>Advanced Optical Materials</i> , 2015, 3, 1744-1749.	7.3	108
15	Phase Manipulation of Electromagnetic Waves with Metasurfaces and Its Applications in Nanophotonics. <i>Advanced Optical Materials</i> , 2018, 6, 1800104.	7.3	103
16	Emergent Functionality and Controllability in Few-layer Metasurfaces. <i>Advanced Materials</i> , 2015, 27, 5410-5421.	21.0	102
17	Plasmonic Airy Beam Generation by Both Phase and Amplitude Modulation with Metasurfaces. <i>Advanced Optical Materials</i> , 2016, 4, 1230-1235.	7.3	102
18	Optical Polarization Encoding Using Graphene-loaded Plasmonic Metasurfaces. <i>Advanced Optical Materials</i> , 2016, 4, 91-98.	7.3	100

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19	Polarization-insensitive Structural Colors with Hue and Saturation Tuning Based on All-Dielectric Nanopixels. <i>Advanced Optical Materials</i> , 2018, 6, 1701009.	7.3	95
20	High-Efficiency Mutual Dual-Band Asymmetric Transmission of Circularly Polarized Waves with Few-Layer Anisotropic Metasurfaces. <i>Advanced Optical Materials</i> , 2016, 4, 2028-2034.	7.3	86
21	Tunable dual-band asymmetric transmission for circularly polarized waves with graphene planar chiral metasurfaces. <i>Optics Letters</i> , 2016, 41, 3142.	3.3	86
22	Generation of vector beams with arbitrary spatial variation of phase and linear polarization using plasmonic metasurfaces. <i>Optics Letters</i> , 2015, 40, 3229.	3.3	82
23	Analysis of optical trapping and propulsion of Rayleigh particles using Airy beam. <i>Optics Express</i> , 2010, 18, 20384.	3.4	79
24	Multiband Asymmetric Transmission of Airborne Sound by Coded Metasurfaces. <i>Physical Review Applied</i> , 2017, 7, .	3.8	71
25	A polarization insensitive and wide-angle dual-band nearly perfect absorber in the infrared regime. <i>Journal of Optics (United Kingdom)</i> , 2012, 14, 085102.	2.2	70
26	Controllable optical activity with non-chiral plasmonic metasurfaces. <i>Light: Science and Applications</i> , 2016, 5, e16096-e16096.	16.6	70
27	High-Performance Broadband Circularly Polarized Beam Deflector by Mirror Effect of Multilayered Metasurfaces. <i>Advanced Functional Materials</i> , 2015, 25, 5428-5434.	14.9	69
28	Energy-Tailorable Spin-Selective Multifunctional Metasurfaces with Full Fourier Components. <i>Advanced Materials</i> , 2019, 31, e1901729.	21.0	69
29	Structural colors in metasurfaces: principle, design and applications. <i>Materials Chemistry Frontiers</i> , 2019, 3, 750-761.	5.9	69
30	Polarization-insensitive and wide-angle plasmonically induced transparency by planar metamaterials. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	66
31	Polarization-insensitive and wide-angle broadband nearly perfect absorber by tunable planar metamaterials in the visible regime. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 125107.	2.2	63
32	Breaking the Diffraction Limit with Radially Polarized Light Based on Dielectric Metalenses. <i>Advanced Optical Materials</i> , 2018, 6, 1800795.	7.3	62
33	Dynamically tunable plasmonically induced transparency by planar hybrid metamaterial. <i>Optics Letters</i> , 2013, 38, 483.	3.3	61
34	Experimental Realization of Type-II Weyl Points and Fermi Arcs in Phononic Crystal. <i>Physical Review Letters</i> , 2019, 122, 104302.	7.8	57
35	Broadband diodelike asymmetric transmission of linearly polarized light in ultrathin hybrid metamaterial. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	54
36	Bidirectional Perfect Absorber Using Free Substrate Plasmonic Metasurfaces. <i>Advanced Optical Materials</i> , 2017, 5, 1700152.	7.3	52

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37	Empowered Layer Effects and Prominent Properties in Few-Layer Metasurfaces. <i>Advanced Optical Materials</i> , 2019, 7, 1801477.	7.3	52
38	Spin-Selective Full-Dimensional Manipulation of Optical Waves with Chiral Mirror. <i>Advanced Materials</i> , 2020, 32, e1907983.	21.0	52
39	Anomalous reflection and vortex beam generation by multi-bit coding acoustic metasurfaces. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	51
40	Integrating polarization conversion and nearly perfect absorption with multifunctional metasurfaces. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	49
41	Single-Layer Plasmonic Metasurface Half-Wave Plates with Wavelength-Independent Polarization Conversion Angle. <i>ACS Photonics</i> , 2017, 4, 2061-2069.	6.6	48
42	Simultaneous generation of high-efficiency broadband asymmetric anomalous refraction and reflection waves with few-layer anisotropic metasurface. <i>Scientific Reports</i> , 2016, 6, 35485.	3.3	45
43	Tripling the Capacity of Optical Vortices by Nonlinear Metasurface. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800164.	8.7	44
44	Aberration-corrected three-dimensional positioning with a single-shot metalens array. <i>Optica</i> , 2020, 7, 1706.	9.3	43
45	Spin-Selective Transmission and Devisable Chirality in Two-Layer Metasurfaces. <i>Scientific Reports</i> , 2017, 7, 8204.	3.3	42
46	Dynamically Tunable Deep Subwavelength High-Order Anomalous Reflection Using Graphene Metasurfaces. <i>Advanced Optical Materials</i> , 2018, 6, 1701047.	7.3	42
47	Optical Information Multiplexing with Nonlinear Coding Metasurfaces. <i>Laser and Photonics Reviews</i> , 2019, 13, 1900045.	8.7	41
48	Manipulation of the Photonic Spin Hall Effect with High Efficiency in Gold-Nanorod-Based Metasurfaces. <i>Advanced Optical Materials</i> , 2017, 5, 1700413.	7.3	37
49	Dielectric Resonance-Based Optical Metasurfaces: From Fundamentals to Applications. <i>IScience</i> , 2020, 23, 101868.	4.1	37
50	Spin-Selective and Wavelength-Selective Demultiplexing Based on Waveguide-Integrated All-Dielectric Metasurfaces. <i>Advanced Optical Materials</i> , 2019, 7, 1801273.	7.3	36
51	Fano-resonance-based mode-matching hybrid metasurface for enhanced second-harmonic generation. <i>Optics Letters</i> , 2017, 42, 3117.	3.3	34
52	Giant spin-selective asymmetric transmission in multipolar-modulated metasurfaces. <i>Optics Letters</i> , 2019, 44, 3805.	3.3	32
53	High Performance Broadband Asymmetric Polarization Conversion Due to Polarization-dependent Reflection. <i>Plasmonics</i> , 2015, 10, 1703-1711.	3.4	31
54	The enhanced stability and biodegradation of dispersed crude oil droplets by Xanthan Gum as an additive of chemical dispersant. <i>Marine Pollution Bulletin</i> , 2017, 118, 275-280.	5.0	31

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55	Discovery of 1,2,4-triazole-1,3-disulfonamides as dual inhibitors of mitochondrial complex II and complex III. <i>New Journal of Chemistry</i> , 2015, 39, 7281-7292.	2.8	30
56	Giant Intrinsic Chirality in Curled Metasurfaces. <i>ACS Photonics</i> , 2020, 7, 3415-3422.	6.6	30
57	Multi-functional magnetic bacteria as efficient and economical Pickering emulsifiers for encapsulation and removal of oil from water. <i>Journal of Colloid and Interface Science</i> , 2020, 560, 349-358.	9.4	29
58	Acoustic Topological Transport and Refraction in a Kekulé Lattice. <i>Physical Review Applied</i> , 2019, 11, .	3.8	28
59	Frequency-Selected Bifunctional Coding Acoustic Metasurfaces. <i>Physical Review Applied</i> , 2020, 14, .	3.8	28
60	Ultrathin polarization-insensitive wide-angle broadband near-perfect absorber in the visible regime based on few-layer MoS ₂ films. <i>Applied Physics Letters</i> , 2017, 111, 111109.	3.3	27
61	Arbitrary Manipulation of Light Intensity by Bilayer Aluminum Metasurfaces. <i>Advanced Optical Materials</i> , 2019, 7, 1900260.	7.3	26
62	Multiband quasibound states in the continuum engineered by space-group-invariant metasurfaces. <i>Physical Review B</i> , 2021, 104, .	3.2	25
63	Diffractive metalens: from fundamentals, practical applications to current trends. <i>Advances in Physics: X</i> , 2020, 5, 1742584.	4.1	22
64	Deep-learning-based colorimetric polarization-angle detection with metasurfaces. <i>Optica</i> , 2022, 9, 217.	9.3	22
65	High-Performance Transmission Structural Colors Generated by Hybrid Metal-Dielectric Metasurfaces. <i>Advanced Optical Materials</i> , 2021, 9, 2100895.	7.3	20
66	Fully interferometric controllable anomalous refraction efficiency using cross modulation with plasmonic metasurfaces. <i>Optics Letters</i> , 2014, 39, 6763.	3.3	19
67	Dirac points and the transition towards Weyl points in three-dimensional sonic crystals. <i>Light: Science and Applications</i> , 2020, 9, 201.	16.6	18
68	Full Complex-Amplitude Modulation of Second Harmonic Generation with Nonlinear Metasurfaces. <i>Laser and Photonics Reviews</i> , 2021, 15, 2100207.	8.7	18
69	Large enhancement and uniform distribution of optical near field through combining periodic bowtie nanoantenna with rectangular nanoaperture array. <i>Optics Letters</i> , 2011, 36, 4014.	3.3	16
70	Individually immobilized and surface-modified hydrocarbon-degrading bacteria for oil emulsification and biodegradation. <i>Marine Pollution Bulletin</i> , 2017, 125, 433-439.	5.0	16
71	Few-layer metasurfaces with arbitrary scattering properties. <i>Science China: Physics, Mechanics and Astronomy</i> , 2020, 63, 1.	5.1	16
72	Multiplexed Nondiffracting Nonlinear Metasurfaces. <i>Advanced Functional Materials</i> , 2020, 30, 1910744.	14.9	16

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73	Momentum Analysis for Metasurfaces. <i>Physical Review Applied</i> , 2017, 8, .	3.8	16
74	Co-enhancing and -confining the electric and magnetic fields of the broken-nanoring and the composite nanoring by azimuthally polarized excitation. <i>Optics Express</i> , 2013, 21, 20611.	3.4	15
75	Tunable dual-band and high-quality-factor perfect absorption based on VO ₂ -assisted metasurfaces. <i>Optics Express</i> , 2021, 29, 31488.	3.4	13
76	A Bilayer Plasmonic Metasurface for Polarization-Insensitive Bidirectional Perfect Absorption. <i>Advanced Theory and Simulations</i> , 2020, 3, 1900216.	2.8	12
77	Metasurfaces: Metasurface-Empowered Optical Multiplexing and Multifunction (Adv. Mater. 3/2020). <i>Advanced Materials</i> , 2020, 32, 2070022.	21.0	10
78	Rapid capturing of oil-degrading bacteria by engineered attapulgite and their synergistic remediation for oil spill. <i>Journal of Colloid and Interface Science</i> , 2021, 604, 272-280.	9.4	10
79	Deep-Learning Enabled Multicolor Meta-Holography. <i>Advanced Optical Materials</i> , 2022, 10, .	7.3	9
80	Dynamically Tunable Plasmonic Lens between the Near and Far Fields Based on Composite Nanorings Illuminated with Radially Polarized Light. <i>Plasmonics</i> , 2015, 10, 625-631.	3.4	8
81	Electromagnetic wave manipulation based on few-layer metasurfaces and polyatomic metasurfaces. <i>ChemPhysMater</i> , 2021, 1, 6-6.	2.8	8
82	Transmission-Reflection-Integrated Multifunctional Continuously Tunable Metasurfaces for Decoupled Modulation of Acoustic Waves. <i>Physical Review Applied</i> , 2022, 17, .	3.8	8
83	Nonlinear Metasurfaces: Tripling the Capacity of Optical Vortices by Nonlinear Metasurface (Laser) Tj ETQq1 1 0.784314 rgBT /Overlook	8.7	7
84	A Review of Topological Semimetal Phases in Photonic Artificial Microstructures. <i>Frontiers in Physics</i> , 2021, 9, .	2.1	7
85	Inverse Design of Few-Layer Metasurfaces Empowered by the Matrix Theory of Multilayer Optics. <i>Physical Review Applied</i> , 2022, 17, .	3.8	7
86	Flexible Confinement and Manipulation of Mie Resonances via Nano Rectangular Hollow Metasurfaces. <i>Advanced Optical Materials</i> , 2022, 10, .	7.3	7
87	Realization of near-field linear nano-polarizer by asymmetric nanoaperture and bowtie nanoantenna. <i>Optics Express</i> , 2013, 21, 10342.	3.4	6
88	Multi-band on-chip photonic spin Hall effect and selective excitation of whispering gallery modes with metasurface-integrated microcavity. <i>Optics Letters</i> , 2021, 46, 3528.	3.3	6
89	Indirectly Manipulating Nanoscale Localized Fields of Bowtie Nanoantennas with Asymmetric Nanoapertures. <i>Plasmonics</i> , 2013, 8, 495-499.	3.4	5
90	Interferometric Control of Signal Light Intensity by Anomalous Refraction with Plasmonic Metasurface. <i>Plasmonics</i> , 2016, 11, 353-358.	3.4	5

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91	Refraction: Dynamically Tunable Broadband Infrared Anomalous Refraction Based on Graphene Metasurfaces (Advanced Optical Materials 12/2015). Advanced Optical Materials, 2015, 3, 1743-1743.	7.3	4
92	Polarization State Manipulation of Electromagnetic Waves with Metamaterials and Its Applications in Nanophotonics. , 0, , .		4
93	Metasurfaces: From Single-Dimensional to Multidimensional Manipulation of Optical Waves with Metasurfaces (Adv. Mater. 16/2019). Advanced Materials, 2019, 31, 1970118.	21.0	4
94	Few-layer metasurfaces with engineered structural symmetry. Science China: Physics, Mechanics and Astronomy, 2021, 64, 1.	5.1	3
95	Applications of laser precisely processing technology in solar cells. Optoelectronics Letters, 2007, 3, 385-387.	0.8	2
96	Nonparaxial Split-Step Method With Local One-Dimensional Scheme for Three-Dimensional Wide-Angle Beam Propagation. Journal of Lightwave Technology, 2009, 27, 2717-2723.	4.6	1
97	Metasurfaces: Simultaneous Control of Light Polarization and Phase Distributions Using Plasmonic Metasurfaces (Adv. Funct. Mater. 5/2015). Advanced Functional Materials, 2015, 25, 824-824.	14.9	1
98	Metasurfaces: Coding Acoustic Metasurfaces (Adv. Mater. 6/2017). Advanced Materials, 2017, 29, .	21.0	1
99	Beam Deflectors: High-Performance Broadband Circularly Polarized Beam Deflector by Mirror Effect of Multinorod Metasurfaces (Adv. Funct. Mater. 34/2015). Advanced Functional Materials, 2015, 25, 5567-5567.	14.9	0
100	Polarization: Optical Polarization Encoding Using Graphene-Loaded Plasmonic Metasurfaces (Advanced Optical Materials 1/2016). Advanced Optical Materials, 2016, 4, 2-2.	7.3	0