

Wei Cai

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

1,897
citations

279798

23
h-index

289244

40
g-index

92
all docs

92
docs citations

92
times ranked

2389
citing authors

#	ARTICLE	IF	CITATIONS
1	Occurrence of endocrine disrupting compounds in aqueous environment and their bacterial degradation: A review. <i>Critical Reviews in Environmental Science and Technology</i> , 2016, 46, 1-59.	12.8	153
2	Reconfigurable metasurfaces that enable light polarization control by light. <i>Light: Science and Applications</i> , 2017, 6, e16254-e16254.	16.6	108
3	Tunable terahertz optical antennas based on graphene ring structures. <i>Applied Physics Letters</i> , 2012, 100, 153111.	3.3	102
4	Vertical distribution and assemblages of microbial communities and their potential effects on sulfur metabolism in a black-odor urban river. <i>Journal of Environmental Management</i> , 2019, 235, 368-376.	7.8	77
5	Surface plasmon modes in graphene wedge and groove waveguides. <i>Optics Express</i> , 2013, 21, 32432.	3.4	75
6	Nanoscale beam splitters based on gradient metasurfaces. <i>Optics Letters</i> , 2018, 43, 267.	3.3	70
7	Efficient Generation of Propagating Plasmons by Electron Beams. <i>Nano Letters</i> , 2009, 9, 1176-1181.	9.1	68
8	Tunable Band-Stop Filters for Graphene Plasmons Based on Periodically Modulated Graphene. <i>Scientific Reports</i> , 2016, 6, 26796.	3.3	61
9	Flexible modulation of plasmon-induced transparency in a strongly coupled graphene grating-sheet system. <i>Optics Express</i> , 2016, 24, 5784.	3.4	57
10	Nonlinear Lithium Niobate Metasurfaces for Second Harmonic Generation. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000521.	8.7	57
11	Sediment bacterial communities in a eutrophic lake influenced by multiple inflow-rivers. <i>Environmental Science and Pollution Research</i> , 2017, 24, 19795-19806.	5.3	54
12	Lithium Niobate Metasurfaces. <i>Laser and Photonics Reviews</i> , 2019, 13, 1800312.	8.7	52
13	Isotropic spiral plasmonic metamaterial for sensing large refractive index change. <i>Optics Letters</i> , 2013, 38, 3133.	3.3	50
14	Immobilized-free miniaturized electrochemical sensing system for Pb ²⁺ detection based on dual Pb ²⁺ -DNAzyme assistant feedback amplification strategy. <i>Biosensors and Bioelectronics</i> , 2018, 117, 312-318.	10.1	46
15	Tailorable Dynamics in Nonlinear Optical Metasurfaces. <i>Advanced Materials</i> , 2020, 32, e1806317.	21.0	40
16	Dispersion of metal-insulator-metal plasmon polaritons probed by cathodoluminescence imaging spectroscopy. <i>Physical Review B</i> , 2009, 80, .	3.2	39
17	A label-free electrochemical biosensor for microRNA detection based on catalytic hairpin assembly and in situ formation of molybdophosphate. <i>Talanta</i> , 2017, 163, 65-71.	5.5	35
18	Efficient orbital angular momentum transfer between plasmons and free electrons. <i>Physical Review B</i> , 2018, 98, .	3.2	35

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19	Surface plasmons at the interface between graphene and Kerr-type nonlinear media. <i>Optics Letters</i> , 2012, 37, 2730.	3.3	33
20	New insights into the spatial variability of biofilm communities and potentially negative bacterial groups in hydraulic concrete structures. <i>Water Research</i> , 2017, 123, 495-504.	11.3	33
21	Revealing the relationship between microbial community structure in natural biofilms and the pollution level in urban rivers: a case study in the Qinhuai River basin, Yangtze River Delta. <i>Water Science and Technology</i> , 2016, 74, 1163-1176.	2.5	32
22	Electro-optic lithium niobate metasurfaces. <i>Science China: Physics, Mechanics and Astronomy</i> , 2021, 64, 1.	5.1	32
23	Broadband on-Chip Terahertz Asymmetric Waveguiding via Phase-Gradient Metasurface. <i>ACS Photonics</i> , 2019, 6, 1774-1779.	6.6	27
24	Zak phase and topological plasmonic Tamm states in one-dimensional plasmonic crystals. <i>Optics Express</i> , 2018, 26, 28963.	3.4	25
25	Behavior of total phosphorus removal in an intelligent controlled sequencing batch biofilm reactor for municipal wastewater treatment. <i>Bioresource Technology</i> , 2013, 132, 190-196.	9.6	24
26	Mid-infrared plasmon induced transparency in heterogeneous graphene ribbon pairs. <i>Optics Express</i> , 2014, 22, 32450.	3.4	22
27	Enhanced on-chip terahertz sensing with hybrid metasurface/lithium niobate structures. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	22
28	All-optical modulation of quantum states by nonlinear metasurface. <i>Light: Science and Applications</i> , 2022, 11, 58.	16.6	21
29	In-Plane Electrical Connectivity and Near-Field Concentration of Isolated Graphene Resonators Realized by Ion Beams. <i>Advanced Materials</i> , 2017, 29, 1701083.	21.0	18
30	Mid-infrared optical near-field switching in heterogeneous graphene ribbon pairs. <i>Applied Physics Letters</i> , 2013, 103, 041604.	3.3	17
31	Optical bistability based on Bragg grating resonators in metal-insulator-metal plasmonic waveguides. <i>AIP Advances</i> , 2013, 3, 012106.	1.3	17
32	Controllable excitation of gap plasmons by electron beams in metallic nanowire pairs. <i>Physical Review B</i> , 2010, 82, .	3.2	16
33	Tailorable reflection of surface plasmons in defect engineered graphene. <i>2D Materials</i> , 2016, 3, 045001.	4.4	16
34	Displacement sensor based on plasmonic slot metamaterials. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	14
35	Isolation and characterization of two novel psychrotrophic decabromodiphenyl ether-degrading bacteria from river sediments. <i>Environmental Science and Pollution Research</i> , 2016, 23, 10371-10381.	5.3	14
36	Effect of the pollution level on the functional bacterial groups aiming at degrading bisphenol A and nonylphenol in natural biofilms of an urban river. <i>Environmental Science and Pollution Research</i> , 2016, 23, 15727-15738.	5.3	14

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37	Lattice Collective Interaction Engineered Optical Activity in Metamaterials. <i>Advanced Optical Materials</i> , 2020, 8, 1901435.	7.3	14
38	Giant near-field radiative heat transfer between ultrathin metallic films. <i>Optics Express</i> , 2019, 27, 36790.	3.4	14
39	Excitation of the Tunable Longitudinal Higher-Order Multipole SPR Modes by Strong Coupling in Large-Area Metal Sub-10 nm-Gap Array Structures and Its Application. <i>Journal of Physical Chemistry C</i> , 2016, 120, 24932-24940.	3.1	13
40	Dynamic spontaneous emission control of an optical emitter coupled to plasmons in strained graphene. <i>Optics Express</i> , 2017, 25, 23070.	3.4	12
41	Plasmonic Tamm states in insulator-metal-insulator waveguides. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, 1368.	2.1	12
42	Second-harmonic generation and its nonlinear depolarization from lithium niobate thin films. <i>Optics Letters</i> , 2020, 45, 145.	3.3	12
43	Design methodology for all-optical bistable switches based on a plasmonic resonator sandwiched between dielectric waveguides. <i>Journal of Optics (United Kingdom)</i> , 2014, 16, 025003.	2.2	11
44	Directional generation of graphene plasmons by near field interference. <i>Optics Express</i> , 2016, 24, 19776.	3.4	11
45	Scaffold metamaterial and its application as strain sensor. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	10
46	Plasmonic Tamm states: dual enhancement of light inside the plasmonic waveguide. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2014, 31, 2769.	2.1	9
47	A Rational Design for Enhanced Catalytic Activity and Durability: Strongly Coupled N-Doped CrO _x /Ce _{0.2} Zr _{0.8} O ₂ Nanoparticle Composites. <i>ACS Applied Nano Materials</i> , 2018, 1, 1150-1163.	5.0	9
48	Cathodoluminescence nanoscopy of open single-crystal aluminum plasmonic nanocavities. <i>Nanoscale</i> , 2018, 10, 22357-22361.	5.6	9
49	Near-field imaging of graphene triangles patterned by helium ion lithography. <i>Nanotechnology</i> , 2018, 29, 385205.	2.6	9
50	Ultrastrong coupling of CdZnS/ZnS quantum dots to bonding breathing plasmons of aluminum metal-insulator-metal nanocavities in near-ultraviolet spectrum. <i>Nanoscale</i> , 2020, 12, 3112-3120.	5.6	9
51	Unveiling quasi-dark surface plasmon modes in Au nanoring cavities by cathodoluminescence. <i>Scientific Reports</i> , 2017, 7, 1402.	3.3	8
52	Evolution and Coupling of Plasmonic Modes in Single-Crystal Aluminum Nanoridge Antennas. <i>ACS Photonics</i> , 2018, 5, 2983-2989.	6.6	8
53	Graphene Plasmonic Tamm States with Ultracompact Footprint. <i>Physical Review Applied</i> , 2019, 12, .	3.8	8
54	Optically addressed spatial light modulator based on nonlinear metasurface. <i>Photonics Research</i> , 2021, 9, 610.	7.0	8

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55	Nanoinfrared Characterization of Bilayer Graphene Conductivity under Dual-Gate Tuning. Nano Letters, 2021, 21, 5151-5157.	9.1	8
56	Conversion from terahertz-guided waves to surface waves with metasurface. Optics Express, 2018, 26, 31233.	3.4	8
57	Nanofocusing of the free-space optical energy with plasmonic Tamm states. Scientific Reports, 2016, 6, 39125.	3.3	7
58	Ultra-strong enhancement of electromagnetic fields in an L-shaped plasmonic nanocavity. Optics Express, 2016, 24, 3849.	3.4	7
59	Phase-Transition Optical Activity in Chiral Metamaterials. Physical Review Letters, 2020, 125, 237401.	7.8	7
60	Ultra-dispersive anomalous diffraction from Pancharatnam-Berry metasurfaces. Applied Physics Letters, 2018, 113, .	3.3	6
61	Laser direct writing of graphene nanostructures beyond the diffraction limit by graphene oxidation. Optics Express, 2018, 26, 20726.	3.4	6
62	A graphene P&N junction induced by single-gate control of dielectric structures. Journal of Materials Chemistry C, 2019, 7, 8796-8802.	5.5	6
63	Strong in-plane scattering of acoustic graphene plasmons by surface atomic steps. Nature Communications, 2022, 13, 983.	12.8	6
64	Metasurfaces with high-Q resonances governed by topological edge state. Optics Letters, 2022, 47, 1822.	3.3	6
65	The Fano-like lineshape without interference in graphene symmetry-breaking structures. Optics Communications, 2015, 355, 10-14.	2.1	5
66	Exploring the Microbial Ecological Functions in Response to Vertical Gradients in a Polluted Urban River. Clean - Soil, Air, Water, 2021, 49, 2100004.	1.1	5
67	Multifunctional and tunable trigate graphene metamaterial with π -topology. Optics Express, 2020, 28, 24772.	3.4	5
68	Prognostic value of immune scores in the microenvironment of colorectal cancer. Oncology Letters, 2020, 20, 1-1.	1.8	5
69	Real-time imaging of autofluorescence NAD(P)H in single human neutrophils. Applied Optics, 2009, 48, 1042.	2.1	4
70	Kinetic study on the cometabolic degradation of 17β -estradiol and 17α -ethinylestradiol by an <i>Acinetobacter</i> sp. strain isolated from activated sludge. Desalination and Water Treatment, 2016, 57, 22671-22681.	1.0	4
71	Experimental observed plasmon near-field response in isolated suspended graphene resonators. Nanotechnology, 2019, 30, 505201.	2.6	4
72	Topologically Enhanced Circular Dichroism from Metasurfaces. Physical Review Applied, 2021, 16, .	3.8	4

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73	Full-Stokes polarimetry based on rotating metasurfaces. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	4
74	Giant field enhancement and resonant wavelength shift through a composite nanostructure. <i>Optics Communications</i> , 2014, 321, 47-50.	2.1	3
75	Substrate carrier concentration dependent plasmon-phonon coupled modes at the interface between graphene and semiconductors. <i>Optics Express</i> , 2015, 23, 29533.	3.4	3
76	Unidirectional excitation of graphene plasmons in Au-graphene composite structures by a linearly polarized light beam. <i>Optics Express</i> , 2017, 25, 4680.	3.4	3
77	Real-space mapping of mid-infrared near-field of Yagi-Uda antenna in the emission mode. <i>Optics Express</i> , 2019, 27, 5884.	3.4	3
78	In-plane reflection phase engineering of graphene plasmons realized by electronic boundary design at the nanoscale. <i>AIP Advances</i> , 2022, 12, .	1.3	3
79	Reduced radiation losses in electron beam excited propagating plasmons. <i>Optics Express</i> , 2011, 19, 18713.	3.4	2
80	Linewidth narrowing of aluminum breathing plasmon resonances in Bragg grating decorated nanodisks. <i>Nanoscale Advances</i> , 2021, 3, 4286-4291.	4.6	2
81	Fabrication of Controllable N-Doped Ce _{0.2} Zr _{0.8} O ₂ via O-N-O Bond with Robust NO Oxidation and Durability at Low Temperature. <i>Energy & Fuels</i> , 2021, 35, 752-761.	5.1	2
82	Design and Implementation of the A/D Conversion Circuit for the High-Accuracy Ultrasonic Flowmeter. , 2010, , .		1
83	Coherence preservation during light-surface plasmon polaritons-light transformation. <i>Science China: Physics, Mechanics and Astronomy</i> , 2013, 56, 1679-1683.	5.1	1
84	Nonlocal Immunized Mid-Infrared Magnetic Hot Spots in Graphene Junctions. <i>Plasmonics</i> , 2016, 11, 1481-1486.	3.4	1
85	Cathodoluminescence Enhancement of MoS ₂ by Femtosecond Laser Induced Periodic Surface Structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 7557-7560.	0.9	1
86	Unveiling breathing plasmon modes in aluminum metal-insulator-metal cavities by cathodoluminescence. <i>Journal of Optics (United Kingdom)</i> , 2020, 22, 035003.	2.2	1
87	Phase-shift-mediated sensitive detection of propagating ultra-confined graphene plasmons. <i>Optics Express</i> , 2022, 30, 1228.	3.4	1
88	Propagating anti-symmetrically coupled plasmons generation by electron beams. <i>Optics Communications</i> , 2012, 285, 4608-4611.	2.1	0
89	Light Excited Surface Plasmons in Graphene Ring Structures. , 2012, , .		0
90	Structured graphene fabricated by laser direct writing beyond the diffraction limit. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
91	High Quality Resonances in Lithium Niobate Metasurfaces and Applications. , 2019, , .		0