

# Wei Cai

## List of Publications by Year in descending order

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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	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
2	Phase-shift-mediated sensitive detection of propagating ultra-confined graphene plasmons. <i>Optics Express</i> , 2022, 30, 1228.	3.4	1
3	Full-Stokes polarimetry based on rotating metasurfaces. <i>Applied Physics Letters</i> , 2022, 120, .	3.3	4
4	Strong in-plane scattering of acoustic graphene plasmons by surface atomic steps. <i>Nature Communications</i> , 2022, 13, 983.	12.8	6
5	Metasurfaces with high-Q resonances governed by topological edge state. <i>Optics Letters</i> , 2022, 47, 1822.	3.3	6
6	All-optical modulation of quantum states by nonlinear metasurface. <i>Light: Science and Applications</i> , 2022, 11, 58.	16.6	21
7	Electro-optic lithium niobate metasurfaces. <i>Science China: Physics, Mechanics and Astronomy</i> , 2021, 64, 1.	5.1	32
8	Optically addressed spatial light modulator based on nonlinear metasurface. <i>Photonics Research</i> , 2021, 9, 610.	7.0	8
9	Nonlinear Lithium Niobate Metasurfaces for Second Harmonic Generation. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000521.	8.7	57
10	Nanoinfrared Characterization of Bilayer Graphene Conductivity under Dual-Gate Tuning. <i>Nano Letters</i> , 2021, 21, 5151-5157.	9.1	8
11	Exploring the Microbial Ecological Functions in Response to Vertical Gradients in a Polluted Urban River. <i>Clean - Soil, Air, Water</i> , 2021, 49, 2100004.	1.1	5
12	Topologically Enhanced Circular Dichroism from Metasurfaces. <i>Physical Review Applied</i> , 2021, 16, .	3.8	4
13	Linewidth narrowing of aluminum breathing plasmon resonances in Bragg grating decorated nanodisks. <i>Nanoscale Advances</i> , 2021, 3, 4286-4291.	4.6	2
14	Fabrication of Controllable N-Doped Ce <sub>0.2</sub> Zr <sub>0.8</sub> O <sub>2</sub> via O-N-O Bond with Robust NO Oxidation and Durability at Low Temperature. <i>Energy &amp; Fuels</i> , 2021, 35, 752-761.	5.1	2
15	Tailorable Dynamics in Nonlinear Optical Metasurfaces. <i>Advanced Materials</i> , 2020, 32, e1806317.	21.0	40
16	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
17	Lattice Collective Interaction Engineered Optical Activity in Metamaterials. <i>Advanced Optical Materials</i> , 2020, 8, 1901435.	7.3	14
18	Phase-Transition Optical Activity in Chiral Metamaterials. <i>Physical Review Letters</i> , 2020, 125, 237401.	7.8	7

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19	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
20	Multifunctional and tunable trigate graphene metamaterial with Lakes of Wada topology. <i>Optics Express</i> , 2020, 28, 24772.	3.4	5
21	Second-harmonic generation and its nonlinear depolarization from lithium niobate thin films. <i>Optics Letters</i> , 2020, 45, 145.	3.3	12
22	Prognostic value of immune scores in the microenvironment of colorectal cancer. <i>Oncology Letters</i> , 2020, 20, 1-1.	1.8	5
23	A graphene N junction induced by single-gate control of dielectric structures. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8796-8802.	5.5	6
24	Experimental observed plasmon near-field response in isolated suspended graphene resonators. <i>Nanotechnology</i> , 2019, 30, 505201.	2.6	4
25	Graphene Plasmonic Tamm States with Ultracompact Footprint. <i>Physical Review Applied</i> , 2019, 12, .	3.8	8
26	Broadband on-Chip Terahertz Asymmetric Waveguiding via Phase-Gradient Metasurface. <i>ACS Photonics</i> , 2019, 6, 1774-1779.	6.6	27
27	Enhanced on-chip terahertz sensing with hybrid metasurface/lithium niobate structures. <i>Applied Physics Letters</i> , 2019, 114, .	3.3	22
28	Lithium Niobate Metasurfaces. <i>Laser and Photonics Reviews</i> , 2019, 13, 1800312.	8.7	52
29	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
30	Giant near-field radiative heat transfer between ultrathin metallic films. <i>Optics Express</i> , 2019, 27, 36790.	3.4	14
31	High Quality Resonances in Lithium Niobate Metasurfaces and Applications. , 2019, , .		0
32	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
33	A Rational Design for Enhanced Catalytic Activity and Durability: Strongly Coupled N-Doped CrOx/Ce0.2Zr0.8O2 Nanoparticle Composites. <i>ACS Applied Nano Materials</i> , 2018, 1, 1150-1163.	5.0	9
34	Cathodoluminescence nanoscopy of open single-crystal aluminum plasmonic nanocavities. <i>Nanoscale</i> , 2018, 10, 22357-22361.	5.6	9
35	Cathodoluminescence Enhancement of MoS <sub>2</sub> by Femtosecond Laser Induced Periodic Surface Structures. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 7557-7560.	0.9	1
36	Zak phase and topological plasmonic Tamm states in one-dimensional plasmonic crystals. <i>Optics Express</i> , 2018, 26, 28963.	3.4	25

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37	Ultra-dispersive anomalous diffraction from Pancharatnam-Berry metasurfaces. Applied Physics Letters, 2018, 113, .	3.3	6
38	Nanoscale beam splitters based on gradient metasurfaces. Optics Letters, 2018, 43, 267.	3.3	70
39	Efficient orbital angular momentum transfer between plasmons and free electrons. Physical Review B, 2018, 98, .	3.2	35
40	Near-field imaging of graphene triangles patterned by helium ion lithography. Nanotechnology, 2018, 29, 385205.	2.6	9
41	Evolution and Coupling of Plasmonic Modes in Single-Crystal Aluminum Nanoridge Antennas. ACS Photonics, 2018, 5, 2983-2989.	6.6	8
42	Plasmonic Tamm states in insulator-metal-insulator waveguides. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 1368.	2.1	12
43	Laser direct writing of graphene nanostructures beyond the diffraction limit by graphene oxidation. Optics Express, 2018, 26, 20726.	3.4	6
44	Immobilized-free miniaturized electrochemical sensing system for Pb <sup>2+</sup> detection based on dual Pb <sup>2+</sup> -DNAzyme assistant feedback amplification strategy. Biosensors and Bioelectronics, 2018, 117, 312-318.	10.1	46
45	Conversion from terahertz-guided waves to surface waves with metasurface. Optics Express, 2018, 26, 31233.	3.4	8
46	Reconfigurable metasurfaces that enable light polarization control by light. Light: Science and Applications, 2017, 6, e16254-e16254.	16.6	108
47	In-Plane Electrical Connectivity and Near-Field Concentration of Isolated Graphene Resonators Realized by Ion Beams. Advanced Materials, 2017, 29, 1701083.	21.0	18
48	Unveiling quasi-dark surface plasmon modes in Au nanoring cavities by cathodoluminescence. Scientific Reports, 2017, 7, 1402.	3.3	8
49	Structured graphene fabricated by laser direct writing beyond the diffraction limit. , 2017, , .		0
50	New insights into the spatial variability of biofilm communities and potentially negative bacterial groups in hydraulic concrete structures. Water Research, 2017, 123, 495-504.	11.3	33
51	Sediment bacterial communities in a eutrophic lake influenced by multiple inflow-rivers. Environmental Science and Pollution Research, 2017, 24, 19795-19806.	5.3	54
52	A label-free electrochemical biosensor for microRNA detection based on catalytic hairpin assembly and in situ formation of molybdophosphate. Talanta, 2017, 163, 65-71.	5.5	35
53	Unidirectional excitation of graphene plasmons in Au-graphene composite structures by a linearly polarized light beam. Optics Express, 2017, 25, 4680.	3.4	3
54	Dynamic spontaneous emission control of an optical emitter coupled to plasmons in strained graphene. Optics Express, 2017, 25, 23070.	3.4	12

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55	Displacement sensor based on plasmonic slot metamaterials. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	14
56	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
57	Nanofocusing of the free-space optical energy with plasmonic Tamm states. <i>Scientific Reports</i> , 2016, 6, 39125.	3.3	7
58	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
59	Tailorable reflection of surface plasmons in defect engineered graphene. <i>2D Materials</i> , 2016, 3, 045001.	4.4	16
60	Directional generation of graphene plasmons by near field interference. <i>Optics Express</i> , 2016, 24, 19776.	3.4	11
61	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
62	Tunable Band-Stop Filters for Graphene Plasmons Based on Periodically Modulated Graphene. <i>Scientific Reports</i> , 2016, 6, 26796.	3.3	61
63	Nonlocal Immunized Mid-Infrared Magnetic Hot Spots in Graphene Junctions. <i>Plasmonics</i> , 2016, 11, 1481-1486.	3.4	1
64	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
65	Kinetic study on the cometabolic degradation of 17 $\beta$ -estradiol and 17 $\alpha$ -ethinylestradiol by an <i>Acinetobacter</i> sp. strain isolated from activated sludge. <i>Desalination and Water Treatment</i> , 2016, 57, 22671-22681.	1.0	4
66	Ultra-strong enhancement of electromagnetic fields in an L-shaped plasmonic nanocavity. <i>Optics Express</i> , 2016, 24, 3849.	3.4	7
67	Flexible modulation of plasmon-induced transparency in a strongly coupled graphene grating-sheet system. <i>Optics Express</i> , 2016, 24, 5784.	3.4	57
68	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
69	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
70	The Fano-like lineshape without interference in graphene symmetry-breaking structures. <i>Optics Communications</i> , 2015, 355, 10-14.	2.1	5
71	Scaffold metamaterial and its application as strain sensor. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	10
72	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

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73	Mid-infrared plasmon induced transparency in heterogeneous graphene ribbon pairs. Optics Express, 2014, 22, 32450.	3.4	22
74	Giant field enhancement and resonant wavelength shift through a composite nanostructure. Optics Communications, 2014, 321, 47-50.	2.1	3
75	Design methodology for all-optical bistable switches based on a plasmonic resonator sandwiched between dielectric waveguides. Journal of Optics (United Kingdom), 2014, 16, 025003.	2.2	11
76	Mid-infrared optical near-field switching in heterogeneous graphene ribbon pairs. Applied Physics Letters, 2013, 103, 041604.	3.3	17
77	Behavior of total phosphorus removal in an intelligent controlled sequencing batch biofilm reactor for municipal wastewater treatment. Bioresource Technology, 2013, 132, 190-196.	9.6	24
78	Coherence preservation during light-surface plasmon polaritons-light transformation. Science China: Physics, Mechanics and Astronomy, 2013, 56, 1679-1683.	5.1	1
79	Isotropic spiral plasmonic metamaterial for sensing large refractive index change. Optics Letters, 2013, 38, 3133.	3.3	50
80	Surface plasmon modes in graphene wedge and groove waveguides. Optics Express, 2013, 21, 32432.	3.4	75
81	Optical bistability based on Bragg grating resonators in metal-insulator-metal plasmonic waveguides. AIP Advances, 2013, 3, 012106.	1.3	17
82	Surface plasmons at the interface between graphene and Kerr-type nonlinear media. Optics Letters, 2012, 37, 2730.	3.3	33
83	Tunable terahertz optical antennas based on graphene ring structures. Applied Physics Letters, 2012, 100, 153111.	3.3	102
84	Propagating anti-symmetrically coupled plasmons generation by electron beams. Optics Communications, 2012, 285, 4608-4611.	2.1	0
85	Light Excited Surface Plasmons in Graphene Ring Structures. , 2012, , .		0
86	Reduced radiation losses in electron beam excited propagating plasmons. Optics Express, 2011, 19, 18713.	3.4	2
87	Controllable excitation of gap plasmons by electron beams in metallic nanowire pairs. Physical Review B, 2010, 82, .	3.2	16
88	Design and Implementation of the A/D Conversion Circuit for the High-Accuracy Ultrasonic Flowmeter. , 2010, , .		1
89	Dispersion of metal-insulator-metal plasmon polaritons probed by cathodoluminescence imaging spectroscopy. Physical Review B, 2009, 80, .	3.2	39
90	Efficient Generation of Propagating Plasmons by Electron Beams. Nano Letters, 2009, 9, 1176-1181.	9.1	68

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91	Real-time imaging of autofluorescence NAD(P)H in single human neutrophils. Applied Optics, 2009, 48, 1042.	2.1	4