

# Lei Zhang

## List of Publications by Year in descending order

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Version: 2024-02-01

84  
papers

6,592  
citations

109321

35  
h-index

62596

80  
g-index

84  
all docs

84  
docs citations

84  
times ranked

6114  
citing authors

#	ARTICLE	IF	CITATIONS
1	Accurate and broadband manipulations of harmonic amplitudes and phases to reach 256 QAM millimeter-wave wireless communications by time-domain digital coding metasurface. National Science Review, 2022, 9, nwab134.	9.5	46
2	Simultaneous and independent control of phase and polarization in terahertz band for functional integration of multiple devices. Optics and Laser Technology, 2022, 151, 108064.	4.6	5
3	Light modulation based on the enhanced Kerr effect in molybdenum disulfide nanostructures with curved features. Physical Chemistry Chemical Physics, 2022, 24, 12208-12213.	2.8	1
4	Casted MoS <sub>2</sub> nanostructures and their Raman properties. Nanoscale, 2022, 14, 10449-10455.	5.6	2
5	Single-layer dielectric metasurface with giant chiroptical effects combining geometric and propagation phase. Optics Communications, 2021, 478, 126405.	2.1	5
6	Synthetic Plasmonic Nanocircuits and the Evolution of Their Correlated Spatial Arrangement and Resonance Spectrum. ACS Photonics, 2021, 8, 166-174.	6.6	6
7	Programmable Controls to Scattering Properties of Radiation Array. Laser and Photonics Reviews, 2021, 15, 2000449.	8.7	93
8	Superscattering, Superabsorption, and Nonreciprocity in Nonlinear Antennas. ACS Photonics, 2021, 8, 585-591.	6.6	17
9	Fully deterministic analysis on photonic whispering-gallery modes of irregular polygonal microcavities with testing in hexagons. Physical Review A, 2021, 103, .	2.5	3
10	Space-Time-Coding Digital Metasurfaces: Principles and Applications. Research, 2021, 2021, 9802673.	5.7	36
11	Graphene Nanoribbon Gap Waveguides for Dispersionless and Low-Loss Propagation with Deep-Subwavelength Confinement. Nanomaterials, 2021, 11, 1302.	4.1	3
12	Superior Deep-Ultraviolet Source Pumped by an Electron Beam for NLOS Communication. IEEE Transactions on Electron Devices, 2020, 67, 3391-3394.	3.0	5
13	Graphene Plasmon Resonances for Electrically-Tunable Sub-Femtometer Dimensional Resolution. Nanomaterials, 2020, 10, 1381.	4.1	3
14	Information Metamaterial Systems. IScience, 2020, 23, 101403.	4.1	132
15	Robust Conformal Perfect Absorber Involving Lossy Ultrathin Film. Photonics, 2020, 7, 57.	2.0	1
16	Wearable Conformal Metasurfaces for Polarization Division Multiplexing. Advanced Optical Materials, 2020, 8, 2000068.	7.3	21
17	Metallic Waveguide Arrays for Metasurface-Like Control with High Simplicity in Design. Advanced Optical Materials, 2020, 8, 2000605.	7.3	7
18	Artificial Metaphotonics Born Naturally in Two Dimensions. Chemical Reviews, 2020, 120, 6197-6246.	47.7	78

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19	Curved 2D WS <sub>2</sub> nanostructures: nanocasting and silent phonon mode. Nanoscale, 2020, 12, 9038-9047.	5.6	5
20	Efficient Optical Angular Momentum Manipulation for Compact Multiplexing and Demultiplexing Using a Dielectric Metasurface. Advanced Optical Materials, 2020, 8, 1901666.	7.3	50
21	Superior third-order nonlinearity in inorganic fullerene-like WS <sub>2</sub> nanoparticles. Photonics Research, 2020, 8, 1881.	7.0	7
22	Polarization-enabled tunable focusing by visible-light metalenses with geometric and propagation phase. Journal of Optics (United Kingdom), 2019, 21, 115102.	2.2	7
23	Dynamically Tunable Plasmon-Induced Transparency Based on Radiative–Radiative-Coupling in a Terahertz Metal–Graphene Metamaterial. Crystals, 2019, 9, 146.	2.2	5
24	Digital Metasurface with Phase Code and Reflection–Transmission Amplitude Code for Flexible Full-Space Electromagnetic Manipulations. Advanced Optical Materials, 2019, 7, 1801429.	7.3	104
25	Extrinsic Polarization–Enabled Covert Plasmonic Colors Using Aluminum Nanostructures. Annalen Der Physik, 2019, 531, 1900073.	2.4	5
26	Manipulation of a ring-shaped beam <i>via</i> spatial self- and cross-phase modulation at lower intensity. Physical Chemistry Chemical Physics, 2019, 21, 7618-7622.	2.8	14
27	Integration of Ultrathin Metasurfaces with a Lens for Efficient Polarization Division Multiplexing. Advanced Optical Materials, 2019, 7, 1900116.	7.3	18
28	Topological insulator properties of photonic kagome helical waveguide arrays. Results in Physics, 2019, 12, 996-1001.	4.1	17
29	The preparation, characterization and application of ultra-smooth, low-loss plasmonics noble metal films. Scientia Sinica: Physica, Mechanica Et Astronomica, 2019, 49, 124206.	0.4	1
30	Rational design of colorimetric sensing for a customer-oriented index range using plasmonic substrates. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 3168.	2.1	7
31	Wavenumber–Splitting Metasurfaces Achieve Multichannel Diffusive Invisibility. Advanced Optical Materials, 2018, 6, 1800010.	7.3	70
32	Design of aluminum nitride metalens for broadband ultraviolet incidence routing. Nanophotonics, 2018, 8, 171-180.	6.0	49
33	Multitasking Shared Aperture Enabled with Multiband Digital Coding Metasurface. Advanced Optical Materials, 2018, 6, 1800657.	7.3	76
34	Transmission–Reflection–Integrated Multifunctional Coding Metasurface for Full-Space Controls of Electromagnetic Waves. Advanced Functional Materials, 2018, 28, 1802205.	14.9	221
35	Modulation of the High-order Laguerre-Gaussian beam in Dressing Four-wave Mixing. IEEE Journal of Quantum Electronics, 2018, , 1-1.	1.9	2
36	Hybrid coupling enhances photoluminescence of monolayer MoS <sub>2</sub> on plasmonic nanostructures. Optics Letters, 2018, 43, 4128.	3.3	18

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37	Suboptimal Coding Metasurfaces for Terahertz Diffuse Scattering. Scientific Reports, 2018, 8, 11908.	3.3	29
38	3D Metaphotonic Nanostructures with Intrinsic Chirality. Advanced Functional Materials, 2018, 28, 1803147.	14.9	102
39	Lead Halide Perovskite Nanostructures for Dynamic Color Display. ACS Nano, 2018, 12, 8847-8854.	14.6	142
40	A Reconfigurable Active Huygens' Metalens. Advanced Materials, 2017, 29, 1606422.	21.0	470
41	Unveiling the relationship between optical bistability and vacuum Rabi splitting. Europhysics Letters, 2017, 117, 53001.	2.0	9
42	Gold nanoparticle mediated graphene plasmon for broadband enhanced infrared spectroscopy. Nanotechnology, 2017, 28, 264001.	2.6	17
43	Information metamaterials and metasurfaces. Journal of Materials Chemistry C, 2017, 5, 3644-3668.	5.5	297
44	Realization of Full Control of a Terahertz Wave Using Flexible Metasurfaces. Advanced Optical Materials, 2017, 5, 1700486.	7.3	18
45	Spin-Controlled Multiple Pencil Beams and Vortex Beams with Different Polarizations Generated by Pancharatnam-Berry Coding Metasurfaces. ACS Applied Materials & Interfaces, 2017, 9, 36447-36455.	8.0	205
46	Infrared Nanoimaging Reveals the Surface Metallic Plasmons in Topological Insulator. ACS Photonics, 2017, 4, 3055-3062.	6.6	27
47	Dielectric Meta-Holograms Enabled with Dual Magnetic Resonances in Visible Light. ACS Nano, 2017, 11, 9382-9389.	14.6	157
48	Phase Control of Eu <sup>3+</sup> -Doped YPO <sub>4</sub> Nano-/Microcrystals. Crystal Growth and Design, 2017, 17, 5935-5944.	3.0	33
49	Graphene-coated nanowires with a drop-shaped cross section for 10 <sup>6</sup> nm confinement and 1 <sup>6</sup> mm propagation. Optics Letters, 2017, 42, 2078.	3.3	19
50	Visible-Frequency Metasurface for Structuring and Spatially Multiplexing Optical Vortices. Advanced Materials, 2016, 28, 2533-2539.	21.0	387
51	Anomalous Shift Behaviors in the Photoluminescence of Dolmen-Like Plasmonic Nanostructures. ACS Photonics, 2016, 3, 979-984.	6.6	22
52	Gate-Programmable Electro-Optical Addressing Array of Graphene-Coated Nanowires with Sub-10 nm Resolution. ACS Photonics, 2016, 3, 1847-1853.	6.6	24
53	Anomalous Refraction and Nondiffractive Bessel-Beam Generation of Terahertz Waves through Transmission-Type Coding Metasurfaces. ACS Photonics, 2016, 3, 1968-1977.	6.6	175
54	Highly efficient plasmon excitation in graphene-Bi <sub>2</sub> Te <sub>3</sub> heterostructure. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1842.	2.1	16

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55	Efficient Excitation of Multiple Plasmonic Modes on Three-Dimensional Graphene: An Unexplored Dimension. ACS Photonics, 2016, 3, 1986-1992.	6.6	42
56	Giant photoluminescence enhancement in tungsten-diselenide-gold plasmonic hybrid structures. Nature Communications, 2016, 7, 11283.	12.8	244
57	Advances in Full Control of Electromagnetic Waves with Metasurfaces. Advanced Optical Materials, 2016, 4, 818-833.	7.3	306
58	Silicon multi-metal holograms for the broadband visible light. Laser and Photonics Reviews, 2016, 10, 500-509.	8.7	181
59	Large-Area Graphene Nanodot Array for Plasmon-Enhanced Infrared Spectroscopy. Small, 2016, 12, 1302-1308.	10.0	32
60	Spoof Plasmon-Based Slow-Wave Excitation of Dielectric Resonator Antennas. IEEE Transactions on Antennas and Propagation, 2016, 64, 2094-2099.	5.1	91
61	Hybrid bilayer plasmonic metasurface efficiently manipulates visible light. Science Advances, 2016, 2, e1501168.	10.3	278
62	Ultrathin Pancharatnam-Berry Metasurface with Maximal Cross-Polarization Efficiency. Advanced Materials, 2015, 27, 1195-1200.	21.0	431
63	Dynamically configurable hybridization of plasmon modes in nanoring dimer arrays. Nanoscale, 2015, 7, 12018-12022.	5.6	32
64	Color generation via subwavelength plasmonic nanostructures. Nanoscale, 2015, 7, 6409-6419.	5.6	262
65	Periodic inversion and phase transition of finite energy Airy beams in a medium with parabolic potential. Optics Express, 2015, 23, 10467.	3.4	128
66	Surface Plasmon Polariton Cross-Coupling Enhanced Forward Emission from Insulator-Metal-Capped ZnO Films. ACS Applied Materials & Interfaces, 2015, 7, 23496-23500.	8.0	4
67	Interplay between absorption and radiative decay rates of surface plasmon polaritons for field enhancement in periodic arrays. Optics Letters, 2014, 39, 501.	3.3	13
68	Three-dimensional visible-light capsule enclosing perfect supersized darkness via antiresolution. Laser and Photonics Reviews, 2014, 8, 743-749.	8.7	19
69	Three-dimensional plasmonic stereoscopic prints in full colour. Nature Communications, 2014, 5, 5361.	12.8	269
70	Controlled synthesis and tunable luminescence of uniform $\text{YPO}_{4-x}\text{H}_2\text{O}$ and $\text{YPO}_{4-x}\text{H}_2\text{O} \cdot \text{Tb}^{3+}/\text{Eu}^{3+}$ nanocrystals by a facile approach. Journal of Materials Chemistry C, 2014, 2, 9149-9158.	5.5	28
71	Anomalous behavior of nearly-entire visible band manipulated with degenerated image dipole array. Nanoscale, 2014, 6, 12303-12309.	5.6	43
72	Unveiling the Correlation between Nanometer-Thick Molecular Monolayer Sensitivity and Near-Field Enhancement and Localization in Coupled Plasmonic Oligomers. ACS Nano, 2014, 8, 9188-9198.	14.6	50

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73	Plasmonic Color Palettes for Photorealistic Printing with Aluminum Nanostructures. Nano Letters, 2014, 14, 4023-4029.	9.1	501
74	Encapsulated Annealing: Enhancing the Plasmon Quality Factor in Lithographicallyâ€‘Defined Nanostructures. Scientific Reports, 2014, 4, 5537.	3.3	96
75	Theoretical realization of robust broadband transparency in ultrathin seamless nanostructures by dual blackbodies for near infrared light. Nanoscale, 2013, 5, 3373.	5.6	36
76	In vivo imaging of the morphology and changes in pH along the gastrointestinal tract of Japanese medaka by photonic band-gap hydrogel microspheres. Analytica Chimica Acta, 2013, 787, 193-202.	5.4	35
77	Creating double negative index materials using the Babinet principle with one metasurface. Physical Review B, 2013, 87, .	3.2	40
78	Rapid phase transition of a phase-change metamaterial perfect absorber. Optical Materials Express, 2013, 3, 1101.	3.0	86
79	Rational design of high performance surface plasmon resonance sensors based on two-dimensional metallic hole arrays. Optics Express, 2012, 20, 12610.	3.4	16
80	One-dimensional steady-state bright photovoltaic solitons in LiNbO3:Fe crystal with background illumination. Optik, 2010, 121, 575-580.	2.9	9
81	Waveguides induced by steady-state gray solitons in biased photorefractiveâ€‘photovoltaic crystals. Optics Communications, 2008, 281, 49-54.	2.1	2
82	Temporal behavior of dark spatial solitons in closed-circuit photovoltaic media. Optics Communications, 2008, 281, 2913-2917.	2.1	16
83	Temporal development of spatial solitons in biased photorefractive-photovoltaic materials. Journal of Modern Optics, 2008, 55, 1571-1585.	1.3	12
84	Grey screening-photovoltaic soliton-induced waveguides. Chinese Physics B, 2007, 16, 3423-3428.	1.3	1