

Zhen Tian

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3765559/publications.pdf>

Version: 2024-02-01

125
papers

6,304
citations

76326

40
h-index

69250

77
g-index

125
all docs

125
docs citations

125
times ranked

3887
citing authors

#	ARTICLE	IF	CITATIONS
1	Active control of electromagnetically induced transparency analogue in terahertz metamaterials. Nature Communications, 2012, 3, 1151.	12.8	1,008
2	Broadband Terahertz Wave Deflection Based on C-shape Complex Metamaterials with Phase Discontinuities. Advanced Materials, 2013, 25, 4567-4572.	21.0	353
3	A perfect metamaterial polarization rotator. Applied Physics Letters, 2013, 103, .	3.3	318
4	Electromagnetically induced transparency in terahertz plasmonic metamaterials via dual excitation pathways of the dark mode. Applied Physics Letters, 2012, 100, .	3.3	229
5	Active graphene-silicon hybrid diode for terahertz waves. Nature Communications, 2015, 6, 7082.	12.8	215
6	Manipulating the plasmon-induced transparency in terahertz metamaterials. Optics Express, 2011, 19, 8912.	3.4	207
7	A Broadband Metasurface-Based Terahertz Flat-Lens Array. Advanced Optical Materials, 2015, 3, 779-785.	7.3	175
8	Anomalous Refraction and Nondiffractive Bessel-Beam Generation of Terahertz Waves through Transmission-Type Coding Metasurfaces. ACS Photonics, 2016, 3, 1968-1977.	6.6	175
9	Efficient flat metasurface lens for terahertz imaging. Optics Express, 2014, 22, 25931.	3.4	161
10	Broadband metasurface holograms: toward complete phase and amplitude engineering. Scientific Reports, 2016, 6, 32867.	3.3	160
11	Thermally Dependent Dynamic Meta-Holography Using a Vanadium Dioxide Integrated Metasurface. Advanced Optical Materials, 2019, 7, 1900175.	7.3	138
12	High-Efficiency Dielectric Metasurfaces for Polarization-Dependent Terahertz Wavefront Manipulation. Advanced Optical Materials, 2018, 6, 1700773.	7.3	137
13	Frequency-Dependent Dual-Functional Coding Metasurfaces at Terahertz Frequencies. Advanced Optical Materials, 2016, 4, 1965-1973.	7.3	125
14	Terahertz superconductor metamaterial. Applied Physics Letters, 2010, 97, .	3.3	109
15	Monolayer graphene sensing enabled by the strong Fano-resonant metasurface. Nanoscale, 2016, 8, 17278-17284.	5.6	107
16	Manipulating polarization states of terahertz radiation using metamaterials. New Journal of Physics, 2012, 14, 115013.	2.9	95
17	Broadband plasmon induced transparency in terahertz metamaterials. Nanotechnology, 2013, 24, 214003.	2.6	94
18	Dual control of active graphene-silicon hybrid metamaterial devices. Carbon, 2015, 90, 146-153.	10.3	85

#	ARTICLE	IF	CITATIONS
19	Plasmon-induced transparency in twisted Fano terahertz metamaterials. <i>Optical Materials Express</i> , 2011, 1, 391.	3.0	82
20	Electrically Tunable Perfect Terahertz Absorber Based on a Graphene Salisbury Screen Hybrid Metasurface. <i>Advanced Optical Materials</i> , 2020, 8, 1900660.	7.3	79
21	Electromagnetically induced absorption in a three-resonator metasurface system. <i>Scientific Reports</i> , 2015, 5, 10737.	3.3	78
22	Polarization-independent all-silicon dielectric metasurfaces in the terahertz regime. <i>Photonics Research</i> , 2018, 6, 24.	7.0	77
23	Thermal broadband tunable Terahertz metamaterials. <i>Optics Communications</i> , 2011, 284, 3129-3133.	2.1	73
24	Broadband non-polarizing terahertz beam splitters with variable split ratio. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	67
25	Terahertz superconducting plasmonic hole array. <i>Optics Letters</i> , 2010, 35, 3586.	3.3	66
26	A close-ring pair terahertz metamaterial resonating at normal incidence. <i>Optics Express</i> , 2009, 17, 20307.	3.4	65
27	Polarization-Independent Plasmon-Induced Transparency in a Fourfold Symmetric Terahertz Metamaterial. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013, 19, 8400707-8400707.	2.9	58
28	All-Dielectric Meta-Holograms with Holographic Images Transforming Longitudinally. <i>ACS Photonics</i> , 2018, 5, 599-606.	6.6	58
29	Cryogenic temperatures as a path toward high-Q terahertz metamaterials. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	57
30	Asymmetric excitation of surface plasmons by dark mode coupling. <i>Science Advances</i> , 2016, 2, e1501142.	10.3	57
31	Random terahertz metamaterials. <i>Journal of Optics (United Kingdom)</i> , 2010, 12, 015101.	2.2	55
32	Polarization-controlled surface plasmon holography. <i>Laser and Photonics Reviews</i> , 2017, 11, 1600212.	8.7	55
33	Anomalous Surface Wave Launching by Handedness Phase Control. <i>Advanced Materials</i> , 2015, 27, 7123-7129.	21.0	54
34	Active metasurface terahertz deflector with phase discontinuities. <i>Optics Express</i> , 2015, 23, 27152.	3.4	53
35	Dielectric Metasurfaces for Complete Control of Phase, Amplitude, and Polarization. <i>Advanced Optical Materials</i> , 2022, 10, 2101223.	7.3	53
36	Ultrafast optical control of terahertz surface plasmons in subwavelength hole arrays at room temperature. <i>Applied Physics Letters</i> , 2009, 95, 011105.	3.3	50

#	ARTICLE	IF	CITATIONS
37	Broadband and Robust Metalens with Nonlinear Phase Profiles for Efficient Terahertz Wave Control. <i>Advanced Optical Materials</i> , 2017, 5, 1601084.	7.3	47
38	Environmentally Stable, High Pulse Energy Yb-Doped Large-Mode-Area Photonic Crystal Fiber Laser Operating in the Soliton-Like Regime. <i>IEEE Photonics Technology Letters</i> , 2008, 20, 1088-1090.	2.5	45
39	Modulating the fundamental inductive-capacitive resonance in asymmetric double-split ring terahertz metamaterials. <i>Applied Physics Letters</i> , 2011, 98, 121114.	3.3	45
40	Magnetic and magnetothermal tunabilities of subwavelength-hole arrays in a semiconductor sheet. <i>Optics Letters</i> , 2009, 34, 1465.	3.3	42
41	Dynamic mode coupling in terahertz metamaterials. <i>Scientific Reports</i> , 2015, 5, 10823.	3.3	41
42	Highly sensitive terahertz metamaterial biosensor for bovine serum albumin (BSA) detection. <i>Optical Materials Express</i> , 2021, 11, 2268.	3.0	40
43	Tailoring the plasmon-induced transparency resonances in terahertz metamaterials. <i>Optics Express</i> , 2017, 25, 19844.	3.4	39
44	Terahertz surface plasmon sensor for distinguishing gasolines. <i>Applied Optics</i> , 2013, 52, 5695.	1.8	33
45	Mapping the near-field propagation of surface plasmons on terahertz metasurfaces. <i>Applied Physics Letters</i> , 2015, 107, 021105.	3.3	33
46	Modeling and sliding mode predictive control of the ultra-supercritical boiler-turbine system with uncertainties and input constraints. <i>ISA Transactions</i> , 2018, 76, 43-56.	5.7	33
47	A Broadband THz-TDS System Based on DSTMS Emitter and LTC InGaAs/InAlAs Photoconductive Antenna Detector. <i>Scientific Reports</i> , 2016, 6, 26949.	3.3	32
48	Coherent Perfect Diffraction in Metagratings. <i>Advanced Materials</i> , 2020, 32, e2002341.	21.0	29
49	Broadband Terahertz Wave Deflection Based on C-shaped Complex Metamaterials with Phase Discontinuities (<i>Adv. Mater.</i> 33/2013). <i>Advanced Materials</i> , 2013, 25, 4566-4566.	21.0	28
50	A Metamaterial-Based Terahertz Low-Pass Filter With Low Insertion Loss and Sharp Rejection. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2013, 3, 832-837.	3.1	28
51	Active control of polarization-dependent near-field coupling in hybrid metasurfaces. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	28
52	Terahertz probes of magnetic field induced spin reorientation in YFeO ₃ single crystal. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	27
53	Achromatic Dielectric Metasurface with Linear Phase Gradient in the Terahertz Domain. <i>Advanced Optical Materials</i> , 2021, 9, 2001403.	7.3	27
54	Nonvolatile reconfigurable terahertz wave modulator. <i>Photonix</i> , 2022, 3, .	13.5	24

#	ARTICLE	IF	CITATIONS
55	Surface plasmon enhanced terahertz spectroscopic distinguishing between isotopes. <i>Chemical Physics Letters</i> , 2009, 475, 132-134.	2.6	23
56	Broadband Terahertz Transparency in a Switchable Metasurface. <i>IEEE Photonics Journal</i> , 2015, 7, 1-8.	2.0	23
57	Aperiodic-metamaterial-based absorber. <i>APL Materials</i> , 2017, 5, .	5.1	23
58	Rotated Pillars for Functional Integrated On-Chip Terahertz Spoof Surface Plasmon Polariton Devices. <i>Advanced Optical Materials</i> , 2022, 10, .	7.3	23
59	Enhanced zero-order transmission of terahertz radiation pulses through very deep metallic gratings with subwavelength slits. <i>Applied Physics Letters</i> , 2006, 89, 041107.	3.3	22
60	Tailoring mode interference in plasmon-induced transparency metamaterials. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 174005.	2.8	22
61	Nonvolatile Reconfigurable Electromagnetically Induced Transparency with Terahertz Chalcogenide Metasurfaces. <i>Laser and Photonics Reviews</i> , 2022, 16, .	8.7	22
62	Ultra-broadband microwave metamaterial absorber with tetramethylurea inclusion. <i>Optics Express</i> , 2019, 27, 25595.	3.4	20
63	Large dynamic resonance transition between surface plasmon and localized surface plasmon modes. <i>Optics Express</i> , 2010, 18, 12482.	3.4	19
64	Superconductive PT-symmetry phase transition in metasurfaces. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	19
65	All-Dielectric Meta-lens Designed for Photoconductive Terahertz Antennas. <i>IEEE Photonics Journal</i> , 2017, 9, 1-9.	2.0	19
66	Reconfigurable and Nonvolatile Terahertz Metadevices Based on a Phase-Change Material. <i>ACS Photonics</i> , 2022, 9, 1638-1646.	6.6	19
67	Plasmonic Analog of Electromagnetically Induced Transparency in Stereo Metamaterials. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2017, 23, 1-7.	2.9	18
68	Hysteretic behavior in ion gel-graphene hybrid terahertz modulator. <i>Carbon</i> , 2019, 155, 514-520.	10.3	18
69	A Thermally Switchable Bifunctional Metasurface for Broadband Polarization Conversion and Absorption Based on Phase-Change Material. <i>Advanced Photonics Research</i> , 2022, 3, .	3.6	18
70	Study of ultraflattened dispersion square-lattice photonic crystal fiber with low confinement loss. <i>Optoelectronics Letters</i> , 2009, 5, 124-127.	0.8	17
71	Negative refractive index in chiral spiral metamaterials at terahertz frequencies. <i>Optik</i> , 2011, 122, 1676-1679.	2.9	17
72	Plasmon-induced transparency in terahertz metamaterials. <i>Science China Information Sciences</i> , 2013, 56, 1-18.	4.3	17

#	ARTICLE	IF	CITATIONS
73	The effect of two-photon absorption and optical excitation area on the generation of THz radiation. Optics Communications, 2006, 267, 422-426.	2.1	16
74	Role of mode coupling on transmission properties of subwavelength composite hole-patch structures. Applied Physics Letters, 2010, 96, 251102.	3.3	16
75	Online performance monitoring platform based on the whole process models of subcritical coal-fired power plants. Applied Thermal Engineering, 2017, 124, 1368-1381.	6.0	15
76	Recent progress in graphene terahertz modulators*. Chinese Physics B, 2020, 29, 077803.	1.4	15
77	Terahertz single-pixel near-field imaging based on active tunable subwavelength metallic grating. Applied Physics Letters, 2020, 116, .	3.3	14
78	Asymmetric transmission of linearly polarized waves based on Mie resonance in all-dielectric terahertz metamaterials. Optics Express, 2020, 28, 29855.	3.4	14
79	Anomalous Wave Propagation in Topological Transition Metasurfaces. Advanced Optical Materials, 2019, 7, 1801483.	7.3	13
80	All-dielectric nanograting for increasing terahertz radiation power of photoconductive antennas. Optics Express, 2020, 28, 19144.	3.4	13
81	Terahertz spectroscopy for quantifying refined oil mixtures. Applied Optics, 2012, 51, 5885.	1.8	12
82	A dynamic heat transfer model to estimate the flue gas temperature in the horizontal flue of the coal-fired utility boiler. Applied Thermal Engineering, 2018, 135, 368-378.	6.0	11
83	Coupling-mediated Selective Spin-to-Plasmonic Orbital Angular Momentum Conversion. Advanced Optical Materials, 2019, 7, 1900713.	7.3	11
84	All-Dielectric Metasurface-Based Quad-Beam Splitter in the Terahertz Regime. IEEE Photonics Journal, 2020, 12, 1-10.	2.0	11
85	Systematic investigation of terahertz wave generation from liquid water lines. Optics Express, 2021, 29, 20477.	3.4	11
86	Nonvolatile reconfigurable dynamic Janus metasurfaces in the terahertz regime. Photonics Research, 2022, 10, 1731.	7.0	11
87	Terahertz superconducting metamaterials for magnetic tunability. Journal of Optics (United Tj ETQq1 1 0.784314 ggBT /Overlock 10 10	0.784314	10
88	Pseudo-online optimization of condenser pressure for the cold-end system with variable speed pumps. Applied Thermal Engineering, 2017, 126, 339-349.	6.0	10
89	Negative refraction in twisted hyperbolic metasurfaces. Nanophotonics, 2022, 11, 1977-1987.	6.0	10
90	Quantitative analysis of Kerr nonlinearity and Kerr-like nonlinearity induced via terahertz generation in ZnTe. Applied Physics Letters, 2008, 92, .	3.3	8

#	ARTICLE	IF	CITATIONS
91	Lateral terahertz wave emission from laser induced plasma in liquid water line. Applied Physics Letters, 2022, 120, .	3.3	7
92	The birefringence and extinction coefficient of positive and negative liquid crystals in the terahertz range. Liquid Crystals, 2016, 43, 796-802.	2.2	6
93	Electrically tunable SERS based on plasmonic gold nanorod-graphene/ion-gel hybrid structure with a low voltage. Carbon, 2022, 187, 425-431.	10.3	6
94	Switchable Chiral Metasurface for Terahertz Anomalous Reflection Based on Phase Change Material. Applied Sciences (Switzerland), 2022, 12, 932.	2.5	6
95	On/Off Switching of Valley Topological Edge States in the Terahertz Region. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	6
96	New assembly route for three-dimensional metamaterials obtained through effective medium theory. Chinese Physics B, 2012, 21, 117802.	1.4	5
97	Photoconductive Meta-Antenna Enabling Terahertz Amplitude Spectrum Manipulation. Advanced Photonics Research, 2021, 2, 2000036.	3.6	5
98	Sensing Textile Fibers by THz Time-Domain Spectroscopy. Advanced Materials Research, 0, 298, 153-156.	0.3	4
99	Surface plasmon-enhanced terahertz spectroscopic distinguishing between isomers in powder form. Applied Optics, 2013, 52, 824.	1.8	4
100	Terahertz quantitatively distinguishing gasoline mixtures using multiparameter-combined analysis. Applied Optics, 2013, 52, 7382.	2.1	4
101	Polarization-dependent electromagnetic responses in an A-shape metasurface. Optics Express, 2017, 25, 20689.	3.4	4
102	Terahertz Meta-Holograms Reconstruction Based on Compressed Sensing. IEEE Photonics Journal, 2020, 12, 1-9.	2.0	4
103	Temperature-dependent birefringence of lithium triborate, LBO in the THz regime. Scientific Reports, 2017, 7, 8122.	3.3	3
104	Nondestructive inspection of metallic microstructure chips based on photoacoustic remote sensing microscopy. Applied Physics Letters, 2022, 120, 182201.	3.3	3
105	Multilevel partitioning algorithm for power system splitting control. , 2012, , .		2
106	Refractive index and absorption coefficient of blue phase liquid crystal in terahertz band. Liquid Crystals, 0, , 1-7.	2.2	2
107	Terahertz Response of Ferroelectric Nanofibers. Journal of Nanoscience and Nanotechnology, 2011, 11, 9636-9640.	0.9	1
108	Observation of electromagnetically induced absorption in a three-resonator system. , 2014, , .		1

#	ARTICLE	IF	CITATIONS
109	From Terahertz Surface Waves to Spoof Surface Plasmon Polaritons. , 2018, , .		1
110	Ultrafast Optical Control of Terahertz Surface Plasmon Polariton in Subwavelength Hole-Arrays at Room Temperature. , 2009, , .		1
111	Spectral properties of very deep zero-order metallic gratings with subwavelength slits at THz frequency region. , 2006, , .		0
112	Experimental Study of the Transmission and Reflection Properties of Very Deep Zero-order Metallic Gratings with Subwavelength Slits in THz Frequency Region. , 2006, , .		0
113	Terahertz plasmonic structures based on metal-insulator phase transition materials. , 2010, , .		0
114	Plasmon-induced transparency in terahertz metamaterials. , 2012, , .		0
115	Broadband and high-efficient terahertz wave deflection based on C-shaped complex metamaterials with phase discontinuities. , 2013, , .		0
116	Gasoline-diesel mixtures quantifying using terahertz time-domain waveform. , 2013, , .		0
117	Metamaterial induced terahertz transparency and absorption. , 2014, , .		0
118	Active graphene-silicon hybrid metamaterial devices. , 2014, , .		0
119	Active terahertz modulations based on graphene-silicon hybrid structures. , 2015, , .		0
120	Dynamically reconfigurable high-efficiency terahertz metasurface holograms. EPJ Applied Metamaterials, 2021, 8, 2.	1.5	0
121	Terahertz optoacoustics of water, tissues and aqueous solutions. , 2021, , .		0
122	Multifunctional dielectric terahertz metasurfaces via spin-decoupled phase control. , 2021, , .		0
123	Terahertz Semiconductor Metamaterials for Magnetostatic and Thermal Tunability. , 2009, , .		0
124	Planar terahertz metamaterial at cryogenic temperatures. , 2010, , .		0
125	Terahertz superconducting plasmonics and metamaterials. , 2011, , .		0