

Hou-Tong Chen

List of Publications by Year in descending order

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148
papers

16,518
citations

34105

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97
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151
all docs

151
docs citations

151
times ranked

9579
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrafast phenomena and terahertz waves: introduction. Journal of the Optical Society of America B: Optical Physics, 2022, 39, UPT1.	2.1	3
2	Core-shell metallic alloy nanopillars-in-dielectric hybrid metamaterials with magneto-plasmonic coupling. Materials Today, 2021, 51, 39-47.	14.2	14
3	Broadband titanium nitride disordered metasurface absorbers. Optics Express, 2021, 29, 42813.	3.4	9
4	Strong Purcell enhancement at telecom wavelengths afforded by spinel Fe ₃ O ₄ nanocrystals with size-tunable plasmonic properties. Nanoscale Horizons, 2021, , .	8.0	2
5	Electrically Tunable Metasurface with Independent Frequency and Amplitude Modulations. ACS Photonics, 2020, 7, 265-271.	6.6	202
6	Morphology Control of Self-Assembled Three-Phase Au-BaTiO ₃ -ZnO Hybrid Metamaterial for Tunable Optical Properties. Crystal Growth and Design, 2020, 20, 6101-6108.	3.0	14
7	3D Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si. Advanced Materials Interfaces, 2020, 7, 2000493.	3.7	18
8	Surface-wave-assisted nonreciprocity in spatio-temporally modulated metasurfaces. Nature Communications, 2020, 11, 1469.	12.8	72
9	Room-Temperature Ferroelectric LiNb ₆ Ba ₅ Ti ₄ O ₃₀ Spinel Phase in a Nanocomposite Thin Film Form for Nonlinear Photonics. ACS Applied Materials & Interfaces, 2020, 12, 23076-23083.	8.0	6
10	Intersubband Polaritons and Strong Coupling in Single Nanoantenna Observed by Near-field Microscopy. , 2020, , .		0
11	Broadband Linear-to-Circular Polarization Conversion Enabled by Birefringent Reflective Metasurfaces. , 2020, , .		0
12	Highly Plasmonic Titanium Nitride by Room-Temperature Sputtering. Scientific Reports, 2019, 9, 15287.	3.3	62
13	Observation of Intersubband Polaritons in a Single Nanoantenna Using Nano-FTIR Spectroscopy. Nano Letters, 2019, 19, 4620-4626.	9.1	12
14	Reconfigurable Terahertz Metasurface Pure Phase Holograms. Advanced Optical Materials, 2019, 7, 1801696.	7.3	76
15	Broadband Linear-to-Circular Polarization Conversion Enabled by Birefringent Off-Resonance Reflective Metasurfaces. Physical Review Letters, 2019, 123, 237401.	7.8	76
16	Metasurface-based ultra-lightweight high-gain off-axis flat parabolic reflectarray for microwave beam collimation/focusing. Scientific Reports, 2019, 9, 18984.	3.3	8
17	Terahertz biosensing with a graphene-metamaterial heterostructure platform. Carbon, 2019, 141, 247-252.	10.3	156
18	Self-Assembled Ordered Three-Phase Au-BaTiO ₃ -ZnO Vertically Aligned Nanocomposites Achieved by a Templating Method. Advanced Materials, 2019, 31, e1806529.	21.0	56

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19	Self-Assembled Ag-TiN Hybrid Plasmonic Metamaterial: Tailorable Tilted Nanopillar and Optical Properties. <i>Advanced Optical Materials</i> , 2019, 7, 1801180.	7.3	31
20	Electric-field tuning of a planar terahertz metamaterial based on strained SrTiO ₃ layers. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 054001.	2.8	7
21	Nanoscale Artificial Plasmonic Lattice in Self-Assembled Vertically Aligned Nitride-Metal Hybrid Metamaterials. <i>Advanced Science</i> , 2018, 5, 1800416.	11.2	56
22	Invited Article: Narrowband terahertz bandpass filters employing stacked bilayer metasurface antireflection structures. <i>APL Photonics</i> , 2018, 3, .	5.7	53
23	High-Temperature Refractory Metasurfaces for Solar Thermophotovoltaic Energy Harvesting. <i>Nano Letters</i> , 2018, 18, 7665-7673.	9.1	140
24	Tailorable Optical Response of Au-LiNbO ₃ Hybrid Metamaterial Thin Films for Optical Waveguide Applications. <i>Advanced Optical Materials</i> , 2018, 6, 1800510.	7.3	32
25	Metasurfaces for broadband terahertz linear polarization rotation and linear-to-circular polarization conversion. , 2018, , .		0
26	Hybrid graphene metasurfaces for high-speed mid-infrared light modulation and single-pixel imaging. <i>Light: Science and Applications</i> , 2018, 7, 51.	16.6	226
27	Broadband terahertz linear polarization rotation and linear-to-circular polarization conversion using metasurfaces. , 2018, , .		0
28	Linear and nonlinear optics of switchable terahertz metasurfaces. , 2018, , .		0
29	Intrinsic left-handed electromagnetic properties in anisotropic superconductors. <i>Applied Physics Letters</i> , 2017, 110, 172602.	3.3	0
30	Nonlinear terahertz metamaterials with active electrical control. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	31
31	Manipulating multiple order parameters via oxygen vacancies: The case of $E_{u0.5B}Ti$	3.2	15
32	Bilayer Metasurfaces for Dual- and Broadband Optical Antireflection. <i>ACS Photonics</i> , 2017, 4, 2111-2116.	6.6	47
33	Characterization of an active metasurface using terahertz ellipsometry. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	13
34	Ultra-thin metasurface microwave flat lens for broadband applications. <i>Applied Physics Letters</i> , 2017, 110, 224101.	3.3	64
35	Single-Layer Plasmonic Metasurface Half-Wave Plates with Wavelength-Independent Polarization Conversion Angle. <i>ACS Photonics</i> , 2017, 4, 2061-2069.	6.6	48
36	Efficient terahertz metasurface-based flat lens. , 2017, , .		1

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37	Demonstration of a highly efficient terahertz flat lens employing tri-layer metasurfaces. Optics Letters, 2017, 42, 1867.	3.3	54
38	Resonance coupling and polarization conversion in terahertz metasurfaces with twisted split-ring resonator pairs. Optics Express, 2017, 25, 25842.	3.4	31
39	Substrate-insensitive atomic layer deposition of plasmonic titanium nitride films. Optical Materials Express, 2017, 7, 777.	3.0	25
40	Electrically Modulated Nonlinear Terahertz Metamaterials. , 2017, , .		0
41	Characterization of Switchable Terahertz Metasurfaces. , 2017, , .		0
42	Theoretical and experimental determination of surface susceptibility of switchable terahertz metasurfaces. , 2016, , .		0
43	Electrically modulated nonlinear terahertz metamaterials. , 2016, , .		0
44	Metasurface Broadband Solar Absorber. Scientific Reports, 2016, 6, 20347.	3.3	220
45	Active terahertz metasurface devices. , 2016, , .		0
46	Independently tunable dual-band perfect absorber based on graphene at mid-infrared frequencies. Scientific Reports, 2016, 5, 18463.	3.3	145
47	A review of metasurfaces: physics and applications. Reports on Progress in Physics, 2016, 79, 076401.	20.1	1,524
48	Metamaterials: Anomalous Terahertz Reflection and Scattering by Flexible and Conformal Coding Metamaterials (Advanced Optical Materials 10/2015). Advanced Optical Materials, 2015, 3, 1373-1373.	7.3	11
49	Anomalous Terahertz Reflection and Scattering by Flexible and Conformal Coding Metamaterials. Advanced Optical Materials, 2015, 3, 1374-1380.	7.3	175
50	Terahertz metasurfaces for antireflection coatings. , 2015, , .		0
51	Tuning of terahertz metamaterials's resonances via near field coupling. Proceedings of SPIE, 2015, , .	0.8	0
52	Terahertz Surface Wave Modulation in a Dielectric Slab Metasurface. , 2015, , .		0
53	Simultaneous Control of Light Polarization and Phase Distributions Using Plasmonic Metasurfaces. Advanced Functional Materials, 2015, 25, 704-710.	14.9	178
54	Semiconductor activated terahertz metamaterials. Frontiers of Optoelectronics, 2015, 8, 27-43.	3.7	10

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55	Metasurface Optical Antireflection Coatings. , 2015, , .		0
56	Efficient metamaterial flat lenses. , 2014, , .		0
57	Hybrid metasurface for ultra-broadband terahertz modulation. Applied Physics Letters, 2014, 105, .	3.3	38
58	Ultra-broadband terahertz modulation by active hybrid metamaterials. , 2014, , .		0
59	Metasurface optical antireflection coating. Applied Physics Letters, 2014, 105, .	3.3	47
60	An electrically driven terahertz metamaterial diffractive modulator with more than 20 dB of dynamic range. Applied Physics Letters, 2014, 104, .	3.3	83
61	Influence of film thickness in THz active metamaterial devices: A comparison between superconductor and metal split-ring resonators. Applied Physics Letters, 2013, 103, .	3.3	25
62	Ultrafast manipulation of near field coupling between bright and dark modes in terahertz metamaterial. Applied Physics Letters, 2013, 102, .	3.3	94
63	Specificity and Heterogeneity of Terahertz Radiation Effect on Gene Expression in Mouse Mesenchymal Stem Cells. Scientific Reports, 2013, 3, 1184.	3.3	78
64	A review of terahertz plasmonics in subwavelength holes on conducting films. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 8400416-8400416.	2.9	29
65	Terahertz Metamaterials for Linear Polarization Conversion and Anomalous Refraction. Science, 2013, 340, 1304-1307.	12.6	1,678
66	New Directions in Active and Tunable Metamaterials. , 2013, , .		0
67	Active Metamaterial Diffraction Grating. , 2013, , .		0
68	The role of magnetic dipoles and non-zero-order Bragg waves in metamaterial perfect absorbers. Optics Express, 2013, 21, 3540.	3.4	14
69	Nonlinear high-temperature superconducting terahertz metamaterials. New Journal of Physics, 2013, 15, 105016.	2.9	35
70	Near-infrared surface plasmon polariton dispersion control with hyperbolic metamaterials. Optics Express, 2013, 21, 11107.	3.4	24
71	An electrically driven terahertz modulator with over 20 dB of dynamic range. , 2013, , .		0
72	Active Metamaterial Diffraction Grating. , 2013, , .		0

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73	Ultrafast control of near field coupling in terahertz metamaterials. , 2013, , .		0
74	Impact of resonator geometry and its coupling with ground plane on ultrathin metamaterial perfect absorbers. Applied Physics Letters, 2012, 101, .	3.3	170
75	Interference theory of metamaterial perfect absorbers. Optics Express, 2012, 20, 7165.	3.4	789
76	Experimental demonstration of terahertz metamaterial absorbers with a broad and flat high absorption band. Optics Letters, 2012, 37, 154.	3.3	351
77	Crystallization of liquid Cu nanodroplets on single crystal Cu substrates prefers closest-packed planes regardless of the substrate orientations. Journal of Crystal Growth, 2012, 345, 34-38.	1.5	6
78	Active control of electromagnetically induced transparency analogue in terahertz metamaterials. Nature Communications, 2012, 3, 1151.	12.8	1,008
79	Terahertz chiral metamaterials with giant and dynamically tunable optical activity. Physical Review B, 2012, 86, .	3.2	221
80	Optical tuning and ultrafast dynamics of high-temperature superconducting terahertz metamaterials. Nanophotonics, 2012, 1, 117-123.	6.0	75
81	A novel approach to further decrease the thickness of ultrathin perfect metamaterial absorbers. , 2012, , .		2
82	Coupling Schemes in Terahertz Planar Metamaterials. International Journal of Optics, 2012, 2012, 1-12.	1.4	18
83	Thermal and ultrafast optical tuning of ultrathin high-temperature superconducting terahertz metamaterials. Proceedings of SPIE, 2012, , .	0.8	2
84	Photoinduced handedness switching in terahertz chiral metamolecules. Nature Communications, 2012, 3, 942.	12.8	407
85	Dynamically reconfigurable terahertz metamaterial through photo-doped semiconductor. Applied Physics Letters, 2011, 99, .	3.3	91
86	Non-thermal effects of terahertz radiation on gene expression in mouse stem cells. Biomedical Optics Express, 2011, 2, 2679.	2.9	73
87	A broadband planar terahertz metamaterial with nested structure. Optics Express, 2011, 19, 15817.	3.4	52
88	Thermal tunability in terahertz metamaterials fabricated on strontium titanate single-crystal substrates. Optics Letters, 2011, 36, 1230.	3.3	143
89	Manipulation of terahertz radiation using metamaterials. Laser and Photonics Reviews, 2011, 5, 513-533.	8.7	141
90	Tunable and Nonlinear Microwave and Terahertz Metamaterials. , 2011, , .		0

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91	Ultrafast optical control of terahertz surface plasmons in subwavelength hole-arrays at room temperature. Proceedings of SPIE, 2011, , .	0.8	0
92	Perfect Terahertz Absorber Using Fishnet Based Metafilm. , 2010, , .		0
93	External modulators for TeraHertz Quantum Cascade Lasers based on electrically-driven active metamaterials. Metamaterials, 2010, 4, 83-88.	2.2	16
94	Active terahertz metamaterials. Optics and Spectroscopy (English Translation of Optika i Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622 Td (0.6	4
95	Mammalian Stem Cells Reprogramming in Response to Terahertz Radiation. PLoS ONE, 2010, 5, e15806.	2.5	109
96	Tuning the Resonance in High-Temperature Superconducting Terahertz Metamaterials. Physical Review Letters, 2010, 105, 247402.	7.8	240
97	Metamaterial based devices for terahertz imaging. , 2010, , .		1
98	Antireflection Coating Using Metamaterials and Identification of Its Mechanism. Physical Review Letters, 2010, 105, 073901.	7.8	318
99	Facile Synthesis and Electrical Properties of Silver Wires through Chemical Reduction by Polyaniline. Journal of Physical Chemistry C, 2010, 114, 22147-22154.	3.1	41
100	Terahertz superconductor metamaterial. Applied Physics Letters, 2010, 97, .	3.3	109
101	Superconductor Terahertz Metamaterials. , 2010, , .		0
102	A Novel Approach of Antireflection Coating Using Planar Metamaterials. , 2010, , .		1
103	A spatial light modulator for terahertz beams. Applied Physics Letters, 2009, 94, .	3.3	271
104	A metamaterial solid-state terahertz phase modulator. Nature Photonics, 2009, 3, 148-151.	31.4	864
105	Ultrafast optical control of terahertz surface plasmons in subwavelength hole arrays at room temperature. Applied Physics Letters, 2009, 95, 011105.	3.3	50
106	Metamaterials for THz polarimetric devices. Optics Express, 2009, 17, 773.	3.4	93
107	Terahertz metamaterials. , 2009, , .		1
108	Terahertz spectroscopy of two-dimensional subwavelength plasmonic structures. , 2009, , .		1

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109	Active Terahertz Metamaterials. , 2009, , .		0
110	A Spatial Light Modulator for Terahertz Radiation. , 2009, , .		0
111	Active Terahertz Metamaterials. , 2009, , .		0
112	A Broadband Terahertz Metamaterial Electrical Modulator. , 2009, , .		0
113	External Modulation of Terahertz Quantum Cascade Lasers Using Electrically-Driven Active Metamaterials. , 2009, , .		0
114	Experimental demonstration of frequency-agile terahertz metamaterials. Nature Photonics, 2008, 2, 295-298.	31.4	765
115	Taming the terahertz. Nature Photonics, 2008, 2, 324-324.	31.4	1
116	Electronic control of extraordinary terahertz transmission through subwavelength metal hole arrays. Optics Express, 2008, 16, 7641.	3.4	119
117	Surface plasmons in terahertz metamaterials. Optics Express, 2008, 16, 18745.	3.4	61
118	Hybrid metamaterials enable fast electrical modulation of freely propagating terahertz waves. Applied Physics Letters, 2008, 93, .	3.3	124
119	Multi-layer planar terahertz electric metamaterials on flexible substrates. , 2008, , .		1
120	Active Terahertz Metamaterial Devices. , 2008, , .		103
121	Terahertz near field microscopy of metamaterials. , 2008, , .		0
122	Properties of Novel Terahertz Electric Metamaterials. , 2007, , .		1
123	Active metamaterials: A novel approach to manipulate terahertz waves. , 2007, , .		0
124	Terahertz metamaterials for active, tunable, and dynamic devices. , 2007, , .		2
125	Metamaterials and their THz applications. , 2007, , .		0
126	Metamaterials for Novel Terahertz and Millimeter Wave Devices. , 2007, , .		1

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127	Terahertz metamaterial devices. , 2007, , .		7
128	Ultrafast optical switching of terahertz metamaterials fabricated on ErAs/GaAs nanoisland superlattices. Optics Letters, 2007, 32, 1620.	3.3	250
129	Complementary planar terahertz metamaterials. Optics Express, 2007, 15, 1084.	3.4	307
130	Opto-electronic control of terahertz metamaterials. , 2007, , .		0
131	Effects of Microstructure Variations on Macroscopic Terahertz Metafilm Properties. Active and Passive Electronic Components, 2007, 2007, 1-10.	0.3	40
132	Electrical Control of Terahertz Metamaterials. , 2007, , .		0
133	Properties of Planar Electric Metamaterials for Novel TeraHertz Applications. Journal of Nanoelectronics and Optoelectronics, 2007, 2, 90-95.	0.5	30
134	Split-Ring Resonator Enhanced Terahertz Antenna. , 2007, , .		5
135	Dynamically Frequency Tunable Terahertz Metamaterials. , 2007, , .		0
136	Active terahertz metamaterial devices. Nature, 2006, 444, 597-600.	27.8	2,066
137	Terahertz microscopy of charge carriers in semiconductors. Applied Physics Letters, 2006, 88, 112115.	3.3	48
138	Terahertz microscopy with submicrometre resolution. Journal of Optics, 2005, 7, S184-S189.	1.5	16
139	Apertureless terahertz near-field microscopy. Semiconductor Science and Technology, 2005, 20, S286-S292.	2.0	43
140	THz microscopy of charge carrier distributions. , 2005, , .		0
141	Terahertz Access to the Nanoworld. Springer Series in Chemical Physics, 2005, , 693-695.	0.2	0
142	Identification of a Resonant Imaging Process in Apertureless Near-Field Microscopy. Physical Review Letters, 2004, 93, 267401.	7.8	57
143	Optical properties of nanocrystalline Y2O3:Eu depending on its odd structure. Journal of Colloid and Interface Science, 2003, 262, 588-593.	9.4	141
144	Terahertz imaging with nanometer resolution. Applied Physics Letters, 2003, 83, 3009-3011.	3.3	469

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145	Energy transfer in PbWO ₄ /Dy ³⁺ luminescence. Journal of Alloys and Compounds, 2001, 322, 298-301.	5.5	11
146	Luminescence concentration quenching of ¹ D ₂ state in YPO ₄ :Pr ³⁺ . Journal of Physics Condensed Matter, 2001, 13, 1151-1158.	1.8	61
147	Photoluminescence Properties of Surface-Modified Nanocrystalline ZnS : Mn. Journal of Colloid and Interface Science, 2000, 229, 534-539.	9.4	33
148	Development of near-field microscopy for THz imaging. , 0, , .		0