

# Hou-Tong Chen

## List of Publications by Citations

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102  
papers

12,171  
citations

44  
h-index

110  
g-index

151  
ext. papers

14,777  
ext. citations

7.3  
avg, IF

6.53  
L-index

#	Paper	IF	Citations
102	Active terahertz metamaterial devices. <i>Nature</i> , <b>2006</b> , 444, 597-600	50.4	1584
101	Terahertz metamaterials for linear polarization conversion and anomalous refraction. <i>Science</i> , <b>2013</b> , 340, 1304-7	33.3	1229
100	A review of metasurfaces: physics and applications. <i>Reports on Progress in Physics</i> , <b>2016</b> , 79, 076401	14.4	931
99	Active control of electromagnetically induced transparency analogue in terahertz metamaterials. <i>Nature Communications</i> , <b>2012</b> , 3, 1151	17.4	783
98	A metamaterial solid-state terahertz phase modulator. <i>Nature Photonics</i> , <b>2009</b> , 3, 148-151	33.9	679
97	Experimental demonstration of frequency-agile terahertz metamaterials. <i>Nature Photonics</i> , <b>2008</b> , 2, 295-298	33.9	620
96	Interference theory of metamaterial perfect absorbers. <i>Optics Express</i> , <b>2012</b> , 20, 7165-72	3.3	600
95	Terahertz imaging with nanometer resolution. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 3009-3011	3.4	336
94	Photoinduced handedness switching in terahertz chiral metamolecules. <i>Nature Communications</i> , <b>2012</b> , 3, 942	17.4	333
93	Experimental demonstration of terahertz metamaterial absorbers with a broad and flat high absorption band. <i>Optics Letters</i> , <b>2012</b> , 37, 154-6	3	273
92	Antireflection coating using metamaterials and identification of its mechanism. <i>Physical Review Letters</i> , <b>2010</b> , 105, 073901	7.4	249
91	Complementary planar terahertz metamaterials. <i>Optics Express</i> , <b>2007</b> , 15, 1084-95	3.3	247
90	Ultrafast optical switching of terahertz metamaterials fabricated on ErAs/GaAs nanoisland superlattices. <i>Optics Letters</i> , <b>2007</b> , 32, 1620-2	3	210
89	A spatial light modulator for terahertz beams. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 213511	3.4	209
88	Tuning the resonance in high-temperature superconducting terahertz metamaterials. <i>Physical Review Letters</i> , <b>2010</b> , 105, 247402	7.4	188
87	Terahertz chiral metamaterials with giant and dynamically tunable optical activity. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	178
86	Simultaneous Control of Light Polarization and Phase Distributions Using Plasmonic Metasurfaces. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 704-710	15.6	150

85	Metasurface Broadband Solar Absorber. <i>Scientific Reports</i> , <b>2016</b> , 6, 20347	4.9	148
84	Impact of resonator geometry and its coupling with ground plane on ultrathin metamaterial perfect absorbers. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 101102	3.4	140
83	Hybrid graphene metasurfaces for high-speed mid-infrared light modulation and single-pixel imaging. <i>Light: Science and Applications</i> , <b>2018</b> , 7, 51	16.7	137
82	Optical properties of nanocrystalline Y2O3:Eu depending on its odd structure. <i>Journal of Colloid and Interface Science</i> , <b>2003</b> , 262, 588-93	9.3	134
81	Anomalous Terahertz Reflection and Scattering by Flexible and Conformal Coding Metamaterials. <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 1374-1380	8.1	131
80	Thermal tunability in terahertz metamaterials fabricated on strontium titanate single-crystal substrates. <i>Optics Letters</i> , <b>2011</b> , 36, 1230-2	3	124
79	Manipulation of terahertz radiation using metamaterials. <i>Laser and Photonics Reviews</i> , <b>2011</b> , 5, 513-533	8.3	112
78	Independently tunable dual-band perfect absorber based on graphene at mid-infrared frequencies. <i>Scientific Reports</i> , <b>2015</b> , 5, 18463	4.9	108
77	Hybrid metamaterials enable fast electrical modulation of freely propagating terahertz waves. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 091117	3.4	105
76	Electronic control of extraordinary terahertz transmission through subwavelength metal hole arrays. <i>Optics Express</i> , <b>2008</b> , 16, 7641-8	3.3	97
75	Terahertz superconductor metamaterial. <i>Applied Physics Letters</i> , <b>2010</b> , 97, 071102	3.4	95
74	Mammalian stem cells reprogramming in response to terahertz radiation. <i>PLoS ONE</i> , <b>2010</b> , 5, e15806	3.7	84
73	Electrically Tunable Metasurface with Independent Frequency and Amplitude Modulations. <i>ACS Photonics</i> , <b>2020</b> , 7, 265-271	6.3	83
72	Terahertz biosensing with a graphene-metamaterial heterostructure platform. <i>Carbon</i> , <b>2019</b> , 141, 247-250	10.4	82
71	Ultrafast manipulation of near field coupling between bright and dark modes in terahertz metamaterial. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 011122	3.4	79
70	Metamaterials for THz polarimetric devices. <i>Optics Express</i> , <b>2009</b> , 17, 773-83	3.3	73
69	High-Temperature Refractory Metasurfaces for Solar Thermophotovoltaic Energy Harvesting. <i>Nano Letters</i> , <b>2018</b> , 18, 7665-7673	11.5	69
68	Dynamically reconfigurable terahertz metamaterial through photo-doped semiconductor. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 231101	3.4	68

67	Optical tuning and ultrafast dynamics of high-temperature superconducting terahertz metamaterials. <i>Nanophotonics</i> , <b>2012</b> , 1, 117-123	6.3	63
66	Specificity and heterogeneity of terahertz radiation effect on gene expression in mouse mesenchymal stem cells. <i>Scientific Reports</i> , <b>2013</b> , 3, 1184	4.9	61
65	An electrically driven terahertz metamaterial diffractive modulator with more than 20 dB of dynamic range. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 091115	3.4	57
64	Non-thermal effects of terahertz radiation on gene expression in mouse stem cells. <i>Biomedical Optics Express</i> , <b>2011</b> , 2, 2679-89	3.5	57
63	Luminescence concentration quenching of 1D2 state in YPO <sub>4</sub> :Pr <sup>3+</sup> . <i>Journal of Physics Condensed Matter</i> , <b>2001</b> , 13, 1151-1158	1.8	52
62	Identification of a resonant imaging process in apertureless near-field microscopy. <i>Physical Review Letters</i> , <b>2004</b> , 93, 267401	7.4	46
61	Ultrafast optical control of terahertz surface plasmons in subwavelength hole arrays at room temperature. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 011105	3.4	45
60	Nanoscale Artificial Plasmonic Lattice in Self-Assembled Vertically Aligned Nitride-Metal Hybrid Metamaterials. <i>Advanced Science</i> , <b>2018</b> , 5, 1800416	13.6	44
59	A broadband planar terahertz metamaterial with nested structure. <i>Optics Express</i> , <b>2011</b> , 19, 15817-23	3.3	44
58	Broadband Linear-to-Circular Polarization Conversion Enabled by Birefringent Off-Resonance Reflective Metasurfaces. <i>Physical Review Letters</i> , <b>2019</b> , 123, 237401	7.4	43
57	Surface plasmons in terahertz metamaterials. <i>Optics Express</i> , <b>2008</b> , 16, 18745-51	3.3	42
56	Self-Assembled Ordered Three-Phase Au-BaTiO <sub>3</sub> -ZnO Vertically Aligned Nanocomposites Achieved by a Templating Method. <i>Advanced Materials</i> , <b>2019</b> , 31, e1806529	24	42
55	Single-Layer Plasmonic Metasurface Half-Wave Plates with Wavelength-Independent Polarization Conversion Angle. <i>ACS Photonics</i> , <b>2017</b> , 4, 2061-2069	6.3	39
54	Terahertz microscopy of charge carriers in semiconductors. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 112115	3.4	39
53	Surface-wave-assisted nonreciprocity in spatio-temporally modulated metasurfaces. <i>Nature Communications</i> , <b>2020</b> , 11, 1469	17.4	38
52	Demonstration of a highly efficient terahertz flat lens employing tri-layer metasurfaces. <i>Optics Letters</i> , <b>2017</b> , 42, 1867-1870	3	38
51	Reconfigurable Terahertz Metasurface Pure Phase Holograms. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1801696	16.9	37
50	Ultra-thin metasurface microwave flat lens for broadband applications. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 224101	3.4	37

49	Metasurface optical antireflection coating. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 241113	3.4	37
48	Facile Synthesis and Electrical Properties of Silver Wires through Chemical Reduction by Polyaniline. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 22147-22154	3.8	37
47	Effects of Microstructure Variations on Macroscopic Terahertz Metafilm Properties. <i>Active and Passive Electronic Components</i> , <b>2007</b> , 2007, 1-10	0.3	33
46	Nonlinear high-temperature superconducting terahertz metamaterials. <i>New Journal of Physics</i> , <b>2013</b> , 15, 105016	2.9	31
45	Invited Article: Narrowband terahertz bandpass filters employing stacked bilayer metasurface antireflection structures. <i>APL Photonics</i> , <b>2018</b> , 3, 051602	5.2	30
44	Apertureless terahertz near-field microscopy. <i>Semiconductor Science and Technology</i> , <b>2005</b> , 20, S286-S292	2.8	30
43	Hybrid metasurface for ultra-broadband terahertz modulation. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 181108	3.4	28
42	Highly Plasmonic Titanium Nitride by Room-Temperature Sputtering. <i>Scientific Reports</i> , <b>2019</b> , 9, 15287	4.9	27
41	Bilayer Metasurfaces for Dual- and Broadband Optical Antireflection. <i>ACS Photonics</i> , <b>2017</b> , 4, 2111-2116	6.3	26
40	Photoluminescence Properties of Surface-Modified Nanocrystalline ZnS : Mn. <i>Journal of Colloid and Interface Science</i> , <b>2000</b> , 229, 534-539	9.3	26
39	Self-Assembled Ag <sub>3</sub> N Hybrid Plasmonic Metamaterial: Tailorable Tilted Nanopillar and Optical Properties. <i>Advanced Optical Materials</i> , <b>2019</b> , 7, 1801180	8.1	26
38	Tailorable Optical Response of Au <sub>2</sub> S <sub>3</sub> NbO <sub>3</sub> Hybrid Metamaterial Thin Films for Optical Waveguide Applications. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800510	8.1	24
37	Nonlinear terahertz metamaterials with active electrical control. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 121101	3.4	24
36	A review of terahertz plasmonics in subwavelength holes on conducting films. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2013</b> , 19, 8400416-8400416	3.8	24
35	Properties of Planar Electric Metamaterials for Novel TeraHertz Applications. <i>Journal of Nanoelectronics and Optoelectronics</i> , <b>2007</b> , 2, 90-95	1.3	24
34	Near-infrared surface plasmon polariton dispersion control with hyperbolic metamaterials. <i>Optics Express</i> , <b>2013</b> , 21, 11107-14	3.3	23
33	Influence of film thickness in THz active metamaterial devices: A comparison between superconductor and metal split-ring resonators. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 061117	3.4	18
32	Substrate-insensitive atomic layer deposition of plasmonic titanium nitride films. <i>Optical Materials Express</i> , <b>2017</b> , 7, 777	2.6	18

31	Resonance coupling and polarization conversion in terahertz metasurfaces with twisted split-ring resonator pairs. <i>Optics Express</i> , <b>2017</b> , 25, 25842-25852	3.3	17
30	Terahertz microscopy with submicrometre resolution. <i>Journal of Optics</i> , <b>2005</b> , 7, S184-S189		15
29	The role of magnetic dipoles and non-zero-order Bragg waves in metamaterial perfect absorbers. <i>Optics Express</i> , <b>2013</b> , 21, 3540-6	3.3	14
28	Manipulating multiple order parameters via oxygen vacancies: The case of $\text{Eu}_{0.5}\text{Ba}_{0.5}\text{TiO}_3$ . <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	13
27	External modulators for TeraHertz Quantum Cascade Lasers based on electrically-driven active metamaterials. <i>Metamaterials</i> , <b>2010</b> , 4, 83-88		13
26	3D Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 2000493	4.6	11
25	Energy transfer in $\text{PbWO}_4/\text{Dy}^{3+}$ luminescence. <i>Journal of Alloys and Compounds</i> , <b>2001</b> , 322, 298-301	5.7	11
24	Morphology Control of Self-Assembled Three-Phase $\text{Au-BaTiO}_3/\text{ZnO}$ Hybrid Metamaterial for Tunable Optical Properties. <i>Crystal Growth and Design</i> , <b>2020</b> , 20, 6101-6108	3.5	10
23	Coupling Schemes in Terahertz Planar Metamaterials. <i>International Journal of Optics</i> , <b>2012</b> , 2012, 1-12	0.9	8
22	Observation of Intersubband Polaritons in a Single Nanoantenna Using Nano-FTIR Spectroscopy. <i>Nano Letters</i> , <b>2019</b> , 19, 4620-4626	11.5	7
21	Semiconductor activated terahertz metamaterials. <i>Frontiers of Optoelectronics</i> , <b>2015</b> , 8, 27-43	2.8	7
20	Characterization of an active metasurface using terahertz ellipsometry. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 191101	3.4	7
19	Room-Temperature Ferroelectric $\text{LiNbBaTiO}$ Spinel Phase in a Nanocomposite Thin Film Form for Nonlinear Photonics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 23076-23083	9.5	6
18	Electric-field tuning of a planar terahertz metamaterial based on strained $\text{SrTiO}_3$ layers. <i>Journal Physics D: Applied Physics</i> , <b>2018</b> , 51, 054001	3	5
17	Metamaterials: Anomalous Terahertz Reflection and Scattering by Flexible and Conformal Coding Metamaterials (Advanced Optical Materials 10/2015). <i>Advanced Optical Materials</i> , <b>2015</b> , 3, 1373-1373	8.1	5
16	Crystallization of liquid Cu nanodroplets on single crystal Cu substrates prefers closest-packed planes regardless of the substrate orientations. <i>Journal of Crystal Growth</i> , <b>2012</b> , 345, 34-38	1.6	5
15	Active terahertz metamaterials. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , <b>2010</b> , 108, 834-840	0.7	4
14	Metasurface-based ultra-lightweight high-gain off-axis flat parabolic reflectarray for microwave beam collimation/focusing. <i>Scientific Reports</i> , <b>2019</b> , 9, 18984	4.9	4

13	Terahertz metamaterial devices <b>2007</b> ,		3
12	Thermal and ultrafast optical tuning of ultrathin high-temperature superconducting terahertz metamaterials <b>2012</b> ,		2
11	Core-shell metallic alloy nanopillars-in-dielectric hybrid metamaterials with magneto-plasmonic coupling. <i>Materials Today</i> , <b>2021</b> ,	21.8	2
10	Efficient terahertz metasurface-based flat lens <b>2017</b> ,		1
9	Metamaterial based devices for terahertz imaging <b>2010</b> ,		1
8	Terahertz metamaterials <b>2009</b> ,		1
7	Active Terahertz Metamaterial Devices <b>2008</b> ,		1
6	Terahertz metamaterials for active, tunable, and dynamic devices <b>2007</b> ,		1
5	Split-Ring Resonator Enhanced Terahertz Antenna <b>2007</b> ,		1
4	A Novel Approach of Antireflection Coating Using Planar Metamaterials <b>2010</b> ,		1
3	Ultrafast phenomena and terahertz waves: introduction. <i>Journal of the Optical Society of America B: Optical Physics</i> , <b>2022</b> , 39, UPT1	1.7	0
2	Intrinsic left-handed electromagnetic properties in anisotropic superconductors. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 172602	3.4	
1	Terahertz Access to the Nanoworld. <i>Springer Series in Chemical Physics</i> , <b>2005</b> , 693-695	0.3	