# Hou-Tong Chen

## List of Publications by Year in Descending Order



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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 | Ultrafast phenomena and terahertz waves: introduction. *Journal of the Optical Society of America B: Optical Physics*, **2022**, 39, UPT1 | 1.7 | 0 |
| 101 | Core-shell metallic alloy nanopillars-in-dielectric hybrid metamaterials with magneto-plasmonic coupling. *Materials Today*, **2021**, | 21.8 | 2 |
| 100 | 3D Hybrid Plasmonic Framework with Au Nanopillars Embedded in Nitride Multilayers Integrated on Si. *Advanced Materials Interfaces*, **2020**, 7, 2000493 | 4.6 | 11 |
| 99 | Surface-wave-assisted nonreciprocity in spatio-temporally modulated metasurfaces. *Nature Communications*, **2020**, 11, 1469 | 17.4 | 38 |
| 98 | Room-Temperature Ferroelectric LiNbBaTiO Spinel Phase in a Nanocomposite Thin Film Form for Nonlinear Photonics. *ACS Applied Materials & Interfaces*, **2020**, 12, 23076-23083 | 9.5 | 6 |
| 97 | Electrically Tunable Metasurface with Independent Frequency and Amplitude Modulations. *ACS Photonics*, **2020**, 7, 265-271 | 6.3 | 83 |
| 96 | Morphology Control of Self-Assembled Three-Phase Au-BaTiO3ZnO Hybrid Metamaterial for Tunable Optical Properties. *Crystal Growth and Design*, **2020**, 20, 6101-6108 | 3.5 | 10 |
| 95 | Observation of Intersubband Polaritons in a Single Nanoantenna Using Nano-FTIR Spectroscopy. *Nano Letters*, **2019**, 19, 4620-4626 | 11.5 | 7 |
| 94 | Reconfigurable Terahertz Metasurface Pure Phase Holograms. *Advanced Optical Materials*, **2019**, 7, 1801696 | 8.2 | 37 |
| 93 | Highly Plasmonic Titanium Nitride by Room-Temperature Sputtering. *Scientific Reports*, **2019**, 9, 15287 | 4.9 | 27 |
| 92 | Broadband Linear-to-Circular Polarization Conversion Enabled by Birefringent Off-Resonance Reflective Metasurfaces. *Physical Review Letters*, **2019**, 123, 237401 | 7.4 | 43 |
| 91 | Metasurface-based ultra-lightweight high-gain off-axis flat parabolic reflectarray for microwave beam collimation/focusing. *Scientific Reports*, **2019**, 9, 18984 | 4.9 | 4 |
| 90 | Terahertz biosensing with a graphene-metamaterial heterostructure platform. *Carbon*, **2019**, 141, 247-252 | 10.4 | 82 |
| 89 | Self-Assembled Ordered Three-Phase Au-BaTiO -ZnO Vertically Aligned Nanocomposites Achieved by a Templating Method. *Advanced Materials*, **2019**, 31, e1806529 | 24 | 42 |
| 88 | Self-Assembled AgTiN Hybrid Plasmonic Metamaterial: Tailorable Tilted Nanopillar and Optical Properties. *Advanced Optical Materials*, **2019**, 7, 1801180 | 8.1 | 26 |
| 87 | Electric-field tuning of a planar terahertz metamaterial based on strained SrTiO3layers. *Journal Physics D: Applied Physics*, **2018**, 51, 054001 | 3 | 5 |
| 86 | Nanoscale Artificial Plasmonic Lattice in Self-Assembled Vertically Aligned Nitride-Metal Hybrid Metamaterials. *Advanced Science*, **2018**, 5, 1800416 | 13.6 | 44 |

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| 85 | Invited Article: Narrowband terahertz bandpass filters employing stacked bilayer metasurface antireflection structures. *APL Photonics*, **2018**, 3, 051602 | 5.2 | 30 |
| 84 | Tailorable Optical Response of Au□iNbO3 Hybrid Metamaterial Thin Films for Optical Waveguide Applications. *Advanced Optical Materials*, **2018**, 6, 1800510 | 8.1 | 24 |
| 83 | Hybrid graphene metasurfaces for high-speed mid-infrared light modulation and single-pixel imaging. *Light: Science and Applications*, **2018**, 7, 51 | 16.7 | 137 |
| 82 | High-Temperature Refractory Metasurfaces for Solar Thermophotovoltaic Energy Harvesting. *Nano Letters*, **2018**, 18, 7665-7673 | 11.5 | 69 |
| 81 | Intrinsic left-handed electromagnetic properties in anisotropic superconductors. *Applied Physics Letters*, **2017**, 110, 172602 | 3.4 | |
| 80 | Nonlinear terahertz metamaterials with active electrical control. *Applied Physics Letters*, **2017**, 111, 121101 | 3.4 | 24 |
| 79 | Manipulating multiple order parameters via oxygen vacancies: The case of Eu0.5Ba0.5TiO3□ *Physical Review B*, **2017**, 96, | 3.3 | 13 |
| 78 | Bilayer Metasurfaces for Dual- and Broadband Optical Antireflection. *ACS Photonics*, **2017**, 4, 2111-2116 | 6.3 | 26 |
| 77 | Characterization of an active metasurface using terahertz ellipsometry. *Applied Physics Letters*, **2017**, 111, 191101 | 3.4 | 7 |
| 76 | Ultra-thin metasurface microwave flat lens for broadband applications. *Applied Physics Letters*, **2017**, 110, 224101 | 3.4 | 37 |
| 75 | Single-Layer Plasmonic Metasurface Half-Wave Plates with Wavelength-Independent Polarization Conversion Angle. *ACS Photonics*, **2017**, 4, 2061-2069 | 6.3 | 39 |
| 74 | Efficient terahertz metasurface-based flat lens **2017**, | | 1 |
| 73 | Demonstration of a highly efficient terahertz flat lens employing tri-layer metasurfaces. *Optics Letters*, **2017**, 42, 1867-1870 | 3 | 38 |
| 72 | Resonance coupling and polarization conversion in terahertz metasurfaces with twisted split-ring resonator pairs. *Optics Express*, **2017**, 25, 25842-25852 | 3.3 | 17 |
| 71 | Substrate-insensitive atomic layer deposition of plasmonic titanium nitride films. *Optical Materials Express*, **2017**, 7, 777 | 2.6 | 18 |
| 70 | A review of metasurfaces: physics and applications. *Reports on Progress in Physics*, **2016**, 79, 076401 | 14.4 | 931 |
| 69 | Metasurface Broadband Solar Absorber. *Scientific Reports*, **2016**, 6, 20347 | 4.9 | 148 |
| 68 | Simultaneous Control of Light Polarization and Phase Distributions Using Plasmonic Metasurfaces. *Advanced Functional Materials*, **2015**, 25, 704-710 | 15.6 | 150 |

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| 67 | Semiconductor activated terahertz metamaterials. *Frontiers of Optoelectronics*, **2015**, 8, 27-43 | 2.8 | 7 |
| 66 | Independently tunable dual-band perfect absorber based on graphene at mid-infrared frequencies. *Scientific Reports*, **2015**, 5, 18463 | 4.9 | 108 |
| 65 | Metamaterials: Anomalous Terahertz Reflection and Scattering by Flexible and Conformal Coding Metamaterials (Advanced Optical Materials 10/2015). *Advanced Optical Materials*, **2015**, 3, 1373-1373 | 8.1 | 5 |
| 64 | Anomalous Terahertz Reflection and Scattering by Flexible and Conformal Coding Metamaterials. *Advanced Optical Materials*, **2015**, 3, 1374-1380 | 8.1 | 131 |
| 63 | An electrically driven terahertz metamaterial diffractive modulator with more than 20 dB of dynamic range. *Applied Physics Letters*, **2014**, 104, 091115 | 3.4 | 57 |
| 62 | Hybrid metasurface for ultra-broadband terahertz modulation. *Applied Physics Letters*, **2014**, 105, 181108 | 3.4 | 28 |
| 61 | Metasurface optical antireflection coating. *Applied Physics Letters*, **2014**, 105, 241113 | 3.4 | 37 |
| 60 | Influence of film thickness in THz active metamaterial devices: A comparison between superconductor and metal split-ring resonators. *Applied Physics Letters*, **2013**, 103, 061117 | 3.4 | 18 |
| 59 | Ultrafast manipulation of near field coupling between bright and dark modes in terahertz metamaterial. *Applied Physics Letters*, **2013**, 102, 011122 | 3.4 | 79 |
| 58 | Specificity and heterogeneity of terahertz radiation effect on gene expression in mouse mesenchymal stem cells. *Scientific Reports*, **2013**, 3, 1184 | 4.9 | 61 |
| 57 | A review of terahertz plasmonics in subwavelength holes on conducting films. *IEEE Journal of Selected Topics in Quantum Electronics*, **2013**, 19, 8400416-8400416 | 3.8 | 24 |
| 56 | Terahertz metamaterials for linear polarization conversion and anomalous refraction. *Science*, **2013**, 340, 1304-7 | 33.3 | 1229 |
| 55 | The role of magnetic dipoles and non-zero-order Bragg waves in metamaterial perfect absorbers. *Optics Express*, **2013**, 21, 3540-6 | 3.3 | 14 |
| 54 | Nonlinear high-temperature superconducting terahertz metamaterials. *New Journal of Physics*, **2013**, 15, 105016 | 2.9 | 31 |
| 53 | Near-infrared surface plasmon polariton dispersion control with hyperbolic metamaterials. *Optics Express*, **2013**, 21, 11107-14 | 3.3 | 23 |
| 52 | Interference theory of metamaterial perfect absorbers. *Optics Express*, **2012**, 20, 7165-72 | 3.3 | 600 |
| 51 | Experimental demonstration of terahertz metamaterial absorbers with a broad and flat high absorption band. *Optics Letters*, **2012**, 37, 154-6 | 3 | 273 |
| 50 | 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 | 1.6 | 5 |

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| 49 | Active control of electromagnetically induced transparency analogue in terahertz metamaterials. *Nature Communications*, **2012**, 3, 1151 | 17.4 | 783 |
| 48 | Terahertz chiral metamaterials with giant and dynamically tunable optical activity. *Physical Review B*, **2012**, 86, | 3.3 | 178 |
| 47 | Optical tuning and ultrafast dynamics of high-temperature superconducting terahertz metamaterials. *Nanophotonics*, **2012**, 1, 117-123 | 6.3 | 63 |
| 46 | Coupling Schemes in Terahertz Planar Metamaterials. *International Journal of Optics*, **2012**, 2012, 1-12 | 0.9 | 8 |
| 45 | Thermal and ultrafast optical tuning of ultrathin high-temperature superconducting terahertz metamaterials **2012**, | | 2 |
| 44 | Photoinduced handedness switching in terahertz chiral metamolecules. *Nature Communications*, **2012**, 3, 942 | 17.4 | 333 |
| 43 | Impact of resonator geometry and its coupling with ground plane on ultrathin metamaterial perfect absorbers. *Applied Physics Letters*, **2012**, 101, 101102 | 3.4 | 140 |
| 42 | Dynamically reconfigurable terahertz metamaterial through photo-doped semiconductor. *Applied Physics Letters*, **2011**, 99, 231101 | 3.4 | 68 |
| 41 | Non-thermal effects of terahertz radiation on gene expression in mouse stem cells. *Biomedical Optics Express*, **2011**, 2, 2679-89 | 3.5 | 57 |
| 40 | A broadband planar terahertz metamaterial with nested structure. *Optics Express*, **2011**, 19, 15817-23 | 3.3 | 44 |
| 39 | Thermal tunability in terahertz metamaterials fabricated on strontium titanate single-crystal substrates. *Optics Letters*, **2011**, 36, 1230-2 | 3 | 124 |
| 38 | Manipulation of terahertz radiation using metamaterials. *Laser and Photonics Reviews*, **2011**, 5, 513-533 | 8.3 | 112 |
| 37 | Active terahertz metamaterials. *Optics and Spectroscopy (English Translation of Optika I Spektroskopiya)*, **2010**, 108, 834-840 | 0.7 | 4 |
| 36 | Mammalian stem cells reprogramming in response to terahertz radiation. *PLoS ONE*, **2010**, 5, e15806 | 3.7 | 84 |
| 35 | Tuning the resonance in high-temperature superconducting terahertz metamaterials. *Physical Review Letters*, **2010**, 105, 247402 | 7.4 | 188 |
| 34 | Metamaterial based devices for terahertz imaging **2010**, | | 1 |
| 33 | Antireflection coating using metamaterials and identification of its mechanism. *Physical Review Letters*, **2010**, 105, 073901 | 7.4 | 249 |
| 32 | Facile Synthesis and Electrical Properties of Silver Wires through Chemical Reduction by Polyaniline. *Journal of Physical Chemistry C*, **2010**, 114, 22147-22154 | 3.8 | 37 |

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| 31 | Terahertz superconductor metamaterial. *Applied Physics Letters*, **2010**, 97, 071102 | 3.4 | 95 |
| 30 | External modulators for TeraHertz Quantum Cascade Lasers based on electrically-driven active metamaterials. *Metamaterials*, **2010**, 4, 83-88 | | 13 |
| 29 | A Novel Approach of Antireflection Coating Using Planar Metamaterials **2010**, | | 1 |
| 28 | A spatial light modulator for terahertz beams. *Applied Physics Letters*, **2009**, 94, 213511 | 3.4 | 209 |
| 27 | A metamaterial solid-state terahertz phase modulator. *Nature Photonics*, **2009**, 3, 148-151 | 33.9 | 679 |
| 26 | Ultrafast optical control of terahertz surface plasmons in subwavelength hole arrays at room temperature. *Applied Physics Letters*, **2009**, 95, 011105 | 3.4 | 45 |
| 25 | Metamaterials for THz polarimetric devices. *Optics Express*, **2009**, 17, 773-83 | 3.3 | 73 |
| 24 | Terahertz metamaterials **2009**, | | 1 |
| 23 | Experimental demonstration of frequency-agile terahertz metamaterials. *Nature Photonics*, **2008**, 2, 295-298 | 33.9 | 620 |
| 22 | Electronic control of extraordinary terahertz transmission through subwavelength metal hole arrays. *Optics Express*, **2008**, 16, 7641-8 | 3.3 | 97 |
| 21 | Surface plasmons in terahertz metamaterials. *Optics Express*, **2008**, 16, 18745-51 | 3.3 | 42 |
| 20 | Hybrid metamaterials enable fast electrical modulation of freely propagating terahertz waves. *Applied Physics Letters*, **2008**, 93, 091117 | 3.4 | 105 |
| 19 | Active Terahertz Metamaterial Devices **2008**, | | 1 |
| 18 | Effects of Microstructure Variations on Macroscopic Terahertz Metafilm Properties. *Active and Passive Electronic Components*, **2007**, 2007, 1-10 | 0.3 | 33 |
| 17 | Terahertz metamaterials for active, tunable, and dynamic devices **2007**, | | 1 |
| 16 | Terahertz metamaterial devices **2007**, | | 3 |
| 15 | Ultrafast optical switching of terahertz metamaterials fabricated on ErAs/GaAs nanoisland superlattices. *Optics Letters*, **2007**, 32, 1620-2 | 3 | 210 |
| 14 | Complementary planar terahertz metamaterials. *Optics Express*, **2007**, 15, 1084-95 | 3.3 | 247 |

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| 13 | Properties of Planar Electric Metamaterials for Novel TeraHertz Applications. *Journal of Nanoelectronics and Optoelectronics*, **2007**, 2, 90-95 | 1.3 | 24 |
| 12 | Split-Ring Resonator Enhanced Terahertz Antenna **2007**, | | 1 |
| 11 | Terahertz microscopy of charge carriers in semiconductors. *Applied Physics Letters*, **2006**, 88, 112115 | 3.4 | 39 |
| 10 | Active terahertz metamaterial devices. *Nature*, **2006**, 444, 597-600 | 50.4 | 1584 |
| 9 | Apertureless terahertz near-field microscopy. *Semiconductor Science and Technology*, **2005**, 20, S286-S292 | 2.8 | 30 |
| 8 | Terahertz microscopy with submicrometre resolution. *Journal of Optics*, **2005**, 7, S184-S189 | | 15 |
| 7 | Terahertz Access to the Nanoworld. *Springer Series in Chemical Physics*, **2005**, 693-695 | 0.3 | |
| 6 | Identification of a resonant imaging process in apertureless near-field microscopy. *Physical Review Letters*, **2004**, 93, 267401 | 7.4 | 46 |
| 5 | Optical properties of nanocrystalline Y2O3:Eu depending on its odd structure. *Journal of Colloid and Interface Science*, **2003**, 262, 588-93 | 9.3 | 134 |
| 4 | Terahertz imaging with nanometer resolution. *Applied Physics Letters*, **2003**, 83, 3009-3011 | 3.4 | 336 |
| 3 | Energy transfer in PbWO4/Dy3+ luminescence. *Journal of Alloys and Compounds*, **2001**, 322, 298-301 | 5.7 | 11 |
| 2 | Luminescence concentration quenching of1D2state in YPO4:Pr3+. *Journal of Physics Condensed Matter*, **2001**, 13, 1151-1158 | 1.8 | 52 |
| 1 | Photoluminescence Properties of Surface-Modified Nanocrystalline ZnS : Mn. *Journal of Colloid and Interface Science*, **2000**, 229, 534-539 | 9.3 | 26 |