

Hao Xin

List of Publications by Year in descending order

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2491
citing authors

#	ARTICLE	IF	CITATIONS
1	Machine Learning Methods-Based Modeling and Optimization of 3-D-Printed Dielectrics Around Monopole Antenna. IEEE Transactions on Antennas and Propagation, 2022, 70, 4997-5006.	5.1	10
2	Real-Time Volumetric Thermoacoustic Imaging and Thermometry Using a 1.5-D Ultrasound Array. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1234-1244.	3.0	8
3	Machine Learning Techniques for Optimizing Design of Double T-Shaped Monopole Antenna. IEEE Transactions on Antennas and Propagation, 2020, 68, 5658-5663.	5.1	99
4	Thermoacoustic Image-Guided Focused Microwave Therapy for Enhanced Breast Cancer Treatment. , 2019, , .		3
5	Sustainability in Network-on-Chips by Exploring Heterogeneity in Emerging Technologies. IEEE Transactions on Sustainable Computing, 2019, 4, 293-307.	3.1	6
6	Microwave-Induced Thermoacoustic Imaging for Embedded Explosives Detection in High-Water Content Medium. IEEE Transactions on Antennas and Propagation, 2019, 67, 4803-4810.	5.1	25
7	A Reconfigurable UWB MIMO Antenna for Indoor and Outdoor Communication Applications. , 2019, , .		3
8	Enhanced terahertz radiation of photoconductive antenna fabricated on GaAs-on-sapphire. AIP Advances, 2019, 9, .	1.3	2
9	Real-Time Thermoacoustic Imaging and Thermometry during Focused Microwave Heating in Multilayer Breast Phantom. , 2019, , .		4
10	Ambipolar SB-FinFETs: A New Path to Ultra-Compact Sub-10 nm Logic Circuits. IEEE Transactions on Electron Devices, 2019, 66, 255-263.	3.0	7
11	Wideband Elliptical Metasurface Cloaks in Printed Antenna Technology. IEEE Transactions on Antennas and Propagation, 2018, 66, 3512-3525.	5.1	57
12	Direction-of-Arrival Estimation Enhancement for Closely Spaced Electrically Small Antenna Array. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 477-484.	4.6	4
13	A Reconfigurable UWB Multiple-Input Multiple-Output Antenna. , 2018, , .		1
14	3D-Printed Phase Controlled Focusing Metalens at 1550 nm Wavelength. , 2018, , .		0
15	A 300 THz tabletop radar range system with sub-micron distance accuracy. Scientific Reports, 2018, 8, 14443.	3.3	7
16	3-D Printed Parts for a Multilayer Phased Array Antenna System. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2150-2154.	4.0	15
17	Rotman lens design and optimization for 5G applications. International Journal of Microwave and Wireless Technologies, 2018, 10, 1048-1057.	1.9	12
18	Contribution assessment of antenna structure and in-gap photocurrent in terahertz radiation of photoconductive antenna. Journal of Applied Physics, 2018, 124, 053107.	2.5	7

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19	A 3-D-Printed <i>W</i> -Band Slotted Waveguide Array Antenna Optimized Using Machine Learning. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2008-2012.	4.0	105
20	Introducing the New "Young Professionals" Column [Young Professionals]. IEEE Antennas and Propagation Magazine, 2018, 60, 122-122.	1.4	0
21	3-D-Printed Microwave and THz Devices Using Polymer Jetting Techniques. Proceedings of the IEEE, 2017, 105, 737-755.	21.3	98
22	Stability Analysis of Non-Foster Circuit Using Normalized Determinant Function. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 3269-3277.	4.6	19
23	mm-Wave tunable colpitts oscillators based on FinFETs. , 2017, , .		1
24	Monopole Antenna Radiation Pattern Control via 3-D-Printed Dielectrics. IEEE Transactions on Antennas and Propagation, 2017, 65, 3869-3876.	5.1	10
25	Microwave-Induced Thermoacoustic Communications. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 3369-3378.	4.6	40
26	Suspended individual SWCNT characterization via bottom gate FET configuration. Microwave and Optical Technology Letters, 2017, 59, 2610-2614.	1.4	2
27	A novel compact reconfigurable UWB antenna for cognitive radio applications. , 2017, , .		3
28	3D Printed Electronics With High Performance, Multi-Layered Electrical Interconnect. IEEE Access, 2017, 5, 25286-25294.	4.2	63
29	Non-foster circuit for wideband matching of high frequency helical antenna. , 2017, , .		3
30	Ultra-compact sub-10nm logic circuits based on ambipolar SB-FinFETs. , 2017, , .		4
31	Performance Evaluation of Wideband Microwave Direction-of-Arrival Estimation Using Luneburg Lens. IEEE Antennas and Wireless Propagation Letters, 2017, 16, 2453-2456.	4.0	9
32	Reconfigurable reflectarray antenna for microwave detection and imaging. , 2017, , .		4
33	Novel 3D-printing enabled antenna design for future wireless intra-chip interconnect. , 2017, , .		2
34	Sparse linear regression for optimizing design parameters of double T-shaped monopole antennas. , 2017, , .		6
35	Monopoles Loaded With 3-D-Printed Dielectrics for Future Wireless Intrachip Communications. IEEE Transactions on Antennas and Propagation, 2017, 65, 6838-6846.	5.1	29
36	Microfluidic Devices for Terahertz Spectroscopy of Live Cells Toward Lab-on-a-Chip Applications. Sensors, 2016, 16, 476.	3.8	37

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37	Multi-layer archimedean spiral antenna fabricated using polymer extrusion 3D printing. Microwave and Optical Technology Letters, 2016, 58, 1662-1666.	1.4	22
38	A compact planar power combiner with complex impedance matching. Microwave and Optical Technology Letters, 2016, 58, 1121-1125.	1.4	1
39	Thermoacoustic and photoacoustic characterizations of few-layer graphene by pulsed excitations. Applied Physics Letters, 2016, 108, .	3.3	36
40	Time-domain THz near-field imaging incorporating Hadamard multiplexing method. , 2016, , .		0
41	A Microwave Direction of Arrival Estimation Technique Using a Single Antenna. IEEE Transactions on Antennas and Propagation, 2016, 64, 3189-3195.	5.1	5
42	Design of volumetric sub-THz negative refractive index metamaterial with gain. , 2016, , .		0
43	Direction of arrival (DOA) estimation system using 3D printed Luneburg lens. , 2016, , .		2
44	Nonlinear Microwave Characterization of CVD Grown Graphene. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1557-1560.	4.0	4
45	3-D Printing Implementation of an X-band Eaton Lens for Beam Deflection. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1487-1490.	4.0	47
46	3D printed microwave and THz components. , 2015, , .		10
47	Fabrication of a realistic breast phantom based on 3D printing technology for thermoacoustic imaging application in breast cancer detection. , 2015, , .		2
48	Stability analysis and parasitic effects of negative impedance converter circuits. , 2015, , .		8
49	Principal Component Analysis (PCA) based compressive sensing millimeter wave imaging system. , 2015, , .		2
50	A dual-band amplifier with flexible frequency ratios. Microwave and Optical Technology Letters, 2015, 57, 2242-2247.	1.4	1
51	Broadband Spectroscopic Thermoacoustic Characterization of Single-Walled Carbon Nanotubes. Journal of Spectroscopy, 2015, 2015, 1-7.	1.3	8
52	Modeling of non-contact thermoacoustic imaging. , 2015, , .		4
53	Design of wideband unit-cell element for 5G antenna arrays. , 2015, , .		7
54	Anisotropic Microwave Conductivity Dispersion of Horizontally Aligned Multi-Walled Carbon-Nanotube Thin Film on Flexible Substrate. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3588-3594.	4.6	0

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55	3D printed multilayer microstrip line structure with vertical transition toward integrated systems. , 2015, , .		22
56	A review of active metamaterials incorporating gain device / medium. , 2015, , .		0
57	Antenna radiation pattern control through 3D printed inhomogeneous dielectrics. , 2015, , .		4
58	Design of additive manufactured Luneburg Lens working at W-band. , 2015, , .		1
59	Reconfigurable Array Design to Realize Principal Component Analysis (PCA)-Based Microwave Compressive Sensing Imaging System. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1039-1042.	4.0	36
60	Mechanical, Electromagnetic, and X-ray Shielding Characterization of a 3D Printable Tungstenâ€™Polycarbonate Polymer Matrix Composite for Space-Based Applications. Journal of Electronic Materials, 2015, 44, 2598-2607.	2.2	81
61	Computational Feasibility Study of Contrast-Enhanced Thermoacoustic Imaging for Breast Cancer Detection Using Realistic Numerical Breast Phantoms. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 1489-1501.	4.6	62
62	3-D Printed Microwave Patch Antenna via Fused Deposition Method and Ultrasonic Wire Mesh Embedding Technique. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1346-1349.	4.0	83
63	Quality Improvement of Thermoacoustic Imaging Based on Compressive Sensing. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1200-1203.	4.0	31
64	3D printable multilayer phased array design. , 2015, , .		0
65	Broadband Microwave Characterization of Nanostructured Thin Film With Giant Dielectric Response. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 3768-3774.	4.6	3
66	THz photoconductive antenna array based near field imaging. , 2015, , .		1
67	Three-Dimensionally Printed/Additive Manufactured Antennas. , 2015, , 1-30.		6
68	Numerical analysis of terahertz generation characteristics of photoconductive antenna. , 2014, , .		4
69	Non-contact thermoacoustic imaging based on laser and microwave vibrometry. , 2014, , .		7
70	Comparison of carbon nanotubes and microbubbles as contrast agents for thermoacoustic imaging by computational studies. , 2014, , .		3
71	Graphene conductivity characterization at microwave and THz frequency. , 2014, , .		6
72	Terahertz emission properties of butterfly-shaped photoconductive antennas based on LT-GaAs and SI-GaAs substrates. , 2014, , .		0

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73	Beam scanning array based on Luneburg lens. , 2014, , .		3
74	3D microwave eaton lens fabricated by polymer jetting rapid prototyping. , 2014, , .		0
75	Impact of matching networks on direction finding performance utilizing two closely spaced electrically small antennas. , 2014, , .		1
76	Stability of tunnel diode based negative impedance circuit. , 2014, , .		1
77	Time-efficient contrast-enhanced thermoacoustic imaging modality for 3-D breast cancer detection using compressive sensing. , 2014, , .		12
78	Microwave gain medium with negative refractive index. Nature Communications, 2014, 5, 5841.	12.8	51
79	Liquid-based dielectric resonator antenna and its application for measuring liquid real permittivities. IET Microwaves, Antennas and Propagation, 2014, 8, 255-262.	1.4	35
80	Microwave-induced thermoacoustic imaging for embedded explosives detection. , 2014, , .		2
81	Performance improvement for thermoacoustic imaging using compressive sensing. , 2014, , .		8
82	A 3-D Luneburg Lens Antenna Fabricated by Polymer Jetting Rapid Prototyping. IEEE Transactions on Antennas and Propagation, 2014, 62, 1799-1807.	5.1	273
83	THz Thermal Emission Control Via Electromagnetic Band Engineering. IEEE Transactions on Terahertz Science and Technology, 2014, 4, 213-224.	3.1	1
84	Microwave (1.7–2.6 GHz) characterization of hydroxylapatite and oxalate using rectangular waveguide. , 2014, , .		0
85	Electromagnetic materials of artificially controlled properties for 3D printing applications. , 2014, , .		8
86	Theoretical and experimental study of a terahertz time-domain spectrometer based on photoconductive antenna. , 2014, , .		1
87	3D Printed Dielectric Reflectarrays: Low-Cost High-Gain Antennas at Sub-Millimeter Waves. IEEE Transactions on Antennas and Propagation, 2014, 62, 2000-2008.	5.1	239
88	Direction of arrival estimation enhancement for closely spaced electrically small antenna array. , 2014, , .		1
89	Comparison of photoconductive antenna performance on LT-GaAs and SI-GaAs substrates. , 2014, , .		1
90	Fabrication of microwave patch antenna using additive manufacturing technique. , 2014, , .		9

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91	Investigation of nonlinear modeling for active antenna design. , 2013, , .		0
92	Characterization of anisotropic conduction of horizontally aligned carbon nanotube thin films. , 2013, , .		1
93	A hybrid microwave / acoustic communication scheme — Thermoacoustic communication. , 2013, , .		6
94	Thermoacoustic imaging and spectroscopy for breast cancer detection applications. , 2013, , .		3
95	Broadband electronically beam scanning structure using Luneburg lens. , 2013, , .		8
96	Design of an Integrated Lens for Separating Microwave and Optical Wave. Microwave and Optical Technology Letters, 2013, 55, 2358-2363.	1.4	0
97	Using a portable terahertz spectrometer to measure the optical properties of <i>in vivo</i> human skin. Journal of Biomedical Optics, 2013, 18, 120503.	2.6	35
98	Computational study of thermoacoustic imaging for breast cancer detection using a realistic breast model. , 2013, , .		4
99	Design, fabrication, and measurement of dielectric reflectarray antennas at 100 GHz. , 2013, , .		0
100	Direction of arrival estimation using Luneburg lens. , 2012, , .		5
101	Balanced and symmetric design of active composite right- / left-handed transmission line with gain. , 2012, , .		3
102	3D rapid prototyping of terahertz computer-generated volume holograms. , 2012, , .		0
103	Terahertz Horn Antenna Based on Hollow-Core Electromagnetic Crystal (EMXT) Structure. IEEE Transactions on Antennas and Propagation, 2012, 60, 5557-5563.	5.1	55
104	Direction of arrival estimation utilizing incident angle dependent spectra. , 2012, , .		5
105	Impact of Microwave Pulses on Thermoacoustic Imaging Applications. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1634-1637.	4.0	36
106	Investigation of Microwave Negative Refractive Index (NRI) Transmission Lines Incorporating Tunnel Diodes. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 671-674.	4.0	8
107	Active negative refraction index (NRI) transmission line with gain. , 2012, , .		0
108	Spectroscopic thermoacoustic imaging of water and fat composition. Applied Physics Letters, 2012, 101, .	3.3	55

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109	Terahertz Characterization of Single-Walled Carbon Nanotube and Graphene On-Substrate Thin Films. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2719-2725.	4.6	40
110	Mechanical Damage Detection in Polymer Tiles by THz Radiation. IEEE Sensors Journal, 2011, 11, 1720-1725.	4.7	41
111	Electromagnetic crystal (EMXT) based THz waveguide and horn antenna fabricated by polymer jetting quick prototyping. , 2011, , .		0
112	A metamaterial-inspired, electrically small rectenna for high-efficiency, low power harvesting and scavenging at the global positioning system L1 frequency. Applied Physics Letters, 2011, 99, .	3.3	46
113	Terahertz all-dielectric EMXT waveguide to planar microstrip transition structure. , 2011, , .		3
114	Active Microwave Metamaterials Incorporating Ideal Gain Devices. Materials, 2011, 4, 73-83.	2.9	25
115	Design of a high-efficiency rectenna for 1.575 GHz wireless low power transmission. , 2011, , .		7
116	Study of new magneto-dielectric substrate for compact antenna application. , 2011, , .		0
117	Improved Two-Antenna Direction Finding Inspired by Human Ears. IEEE Transactions on Antennas and Propagation, 2011, 59, 2691-2697.	5.1	20
118	Terahertz electromagnetic crystal waveguide fabricated by polymer jetting rapid prototyping. Optics Express, 2011, 19, 3962.	3.4	114
119	Heat Induced Damage Detection by Terahertz (THz) Radiation. Journal of Infrared, Millimeter, and Terahertz Waves, 2011, 32, 848-856.	2.2	18
120	Demetalization of single-walled carbon nanotube thin films with microwave irradiation. Applied Physics A: Materials Science and Processing, 2011, 102, 401-406.	2.3	6
121	A compact metamaterial-inspired multilayered slot antenna. Microwave and Optical Technology Letters, 2011, 53, 219-223.	1.4	1
122	Electrically Small GPS L1 Rectennas. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 935-938.	4.0	32
123	Microwave induced thermal acoustic imaging modeling for potential breast cancer detection. , 2011, , .		3
124	Metallic wire array characterization and waveguide design for terahertz applications. , 2011, , .		0
125	Design of a GPS L1 rectenna by using a metamaterial-inspired electrically small antenna. , 2011, , .		0
126	Thermoacoustic imaging and spectroscopy for enhanced breast cancer detection. , 2011, , .		6

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127	Designs of ultra wideband (UWB) printed elliptical monopole antennas with slots. Microwave and Optical Technology Letters, 2010, 52, 466-471.	1.4	26
128	Investigation of several terahertz electromagnetic band gap structures. Microwave and Optical Technology Letters, 2010, 52, 678-686.	1.4	8
129	Metallic Wire Array as Low-Effective Index of Refraction Medium for Directive Antenna Application. IEEE Transactions on Antennas and Propagation, 2010, 58, 79-87.	5.1	32
130	Dual-band branch-line balun for millimeter-wave applications. , 2009, , .		3
131	Designs of metamaterials that enable electromagnetic cloaks for dual-frequency application. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	0
132	All-dielectric low-loss terahertz waveguide fabricated by rapid prototyping. , 2009, , .		4
133	Electromagnetic invisibility cloak with circular-elliptical shaped boundary. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	1
134	Experimental study of microwave radiation of carbon nanotube arrays. Applied Physics Letters, 2009, 95, .	3.3	9
135	A compact metamaterial-inspired mmW CPW-fed antenna. , 2009, , .		1
136	A Dual-Band Dipole Antenna With Integrated-Balun. IEEE Transactions on Antennas and Propagation, 2009, 57, 786-789.	5.1	38
137	Experimental demonstration of narrow beam monopole antenna embedded in low effective index of refraction ($n < 1$) wire medium. Microwave and Optical Technology Letters, 2008, 50, 2341-2345.	1.4	6
138	Microwave (8~50 GHz) Characterization of Multiwalled Carbon Nanotube Papers Using Rectangular Waveguides. IEEE Transactions on Microwave Theory and Techniques, 2008, 56, 499-506.	4.6	47
139	Designs of dual-band Wilkinson power dividers with flexible frequency ratios. , 2008, , .		18
140	Terahertz characterization of multi-walled carbon nanotube films. Journal of Applied Physics, 2008, 103, 094324.	2.5	27
141	Design of dual-band balun with tapped stubs. , 2008, , .		0
142	Rapid and inexpensive fabrication of terahertz electromagnetic bandgap structures. Optics Express, 2008, 16, 16442.	3.4	112
143	A W-Band Low-Loss Dual-Polarization Quasi-TEM Waveguide. IEEE Transactions on Antennas and Propagation, 2008, 56, 1661-1668.	5.1	3
144	THz Thermal Radiation Enhancement Using an Electromagnetic Crystal. IEEE Transactions on Antennas and Propagation, 2008, 56, 2970-2980.	5.1	12

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145	An improved two-antenna direction of arrival (DOA) technique inspired by human ears. , 2008, , .		6
146	Dual-band balun with fully matched performance. , 2008, , .		0
147	Design of novel printed elliptical monopole antenna for UWB applications. , 2008, , .		1
148	THz thermal radiation enhancement using electromagnetic crystals. , 2007, , .		2
149	Characterization of Multi-Walled Carbon Nanotube (MWNT) Papers Using X-Band Waveguides. , 2007, , .		4
150	A W-Band Quasi-TEM Waveguide Using Electromagnetic Crystal (EMXT) Surfaces. , 2006, , .		1
151	Millimeter-Wave Components Utilizing Electromagnetic Crystal (EMXT) Surfaces. , 0, , .		0