

Wonbin Hong

List of Publications by Year in descending order

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91
papers

2,145
citations

471509

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91
all docs

91
docs citations

91
times ranked

1765
citing authors

#	ARTICLE	IF	CITATIONS
1	Study and prototyping of practically large-scale mmWave antenna systems for 5G cellular devices. , 2014, 52, 63-69.		460
2	Millimeter-Wave 5G Antennas for Smartphones: Overview and Experimental Demonstration. IEEE Transactions on Antennas and Propagation, 2017, 65, 6250-6261.	5.1	371
3	Solving the 5G Mobile Antenna Puzzle: Assessing Future Directions for the 5G Mobile Antenna Paradigm Shift. IEEE Microwave Magazine, 2017, 18, 86-102.	0.8	181
4	Design and analysis of a low-profile 28 GHz beam steering antenna solution for Future 5G cellular applications. , 2014, , .		113
5	An Optically Invisible Antenna-on-Display Concept for Millimeter-Wave 5G Cellular Devices. IEEE Transactions on Antennas and Propagation, 2019, 67, 2942-2952.	5.1	82
6	Exploitation of Dual-Polarization Diversity for 5G Millimeter-Wave MIMO Beamforming Systems. IEEE Transactions on Antennas and Propagation, 2017, 65, 6646-6655.	5.1	76
7	Four-Element Reconfigurable Coupled Loop MIMO Antenna Featuring LTE Full-Band Operation for Metallic-Rimmed Smartphone. IEEE Transactions on Antennas and Propagation, 2019, 67, 99-107.	5.1	72
8	Energy-Efficient 5G Phased Arrays Incorporating Vertically Polarized Endfire Planar Folded Slot Antenna for mmWave Mobile Terminals. IEEE Transactions on Antennas and Propagation, 2020, 68, 230-241.	5.1	68
9	Optically Invisible Antenna Integrated Within an OLED Touch Display Panel for IoT Applications. IEEE Transactions on Antennas and Propagation, 2017, 65, 3750-3755.	5.1	57
10	24-Element Antenna-in-Package for Stationary 60-GHz Communication Scenarios. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 738-741.	4.0	56
11	Optically Transparent Nano-Patterned Antennas: A Review and Future Directions. Applied Sciences (Switzerland), 2018, 8, 901.	2.5	51
12	Grid Assembly-Free 60-GHz Antenna Module Embedded in FR-4 Transceiver Carrier Board. IEEE Transactions on Antennas and Propagation, 2013, 61, 1573-1580.	5.1	46
13	Multilayer Antenna Package for IEEE 802.11ad Employing Ultralow-Cost FR4. IEEE Transactions on Antennas and Propagation, 2012, 60, 5932-5938.	5.1	43
14	Frequency-Adjustable Planar Folded Slot Antenna Using Fully Integrated Multithrow Function for 5G Mobile Devices at Millimeter-Wave Spectrum. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 1872-1881.	4.6	26
15	Hybrid Antenna Module Concept for 28 GHz 5G Beamsteering Cellular Devices. , 2018, , .		25
16	A 3-D Lumped-Components-Free Absorptive Frequency-Selective Transmission Structure Featuring Very Wide Two-Sided Absorption Bandwidths. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 761-765.	4.0	24
17	Millimeter-Wave Phased-Array Antenna-in-Package (AiP) Using Stamped Metal Process for Enhanced Heat Dissipation. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2355-2359.	4.0	23
18	A Symmetrically Stacked Planar Antenna Concept Exhibiting Quasi-Isotropic Radiation Coverage. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1390-1394.	4.0	19

#	ARTICLE	IF	CITATIONS
19	Multi-polarized antenna array configuration for mmWave 5G mobile terminals. , 2015, , .		18
20	mmWave 5G NR Cellular Handset Prototype Featuring Optically Invisible Beamforming Antenna-on-Display. IEEE Communications Magazine, 2020, 58, 54-60.	6.1	18
21	Broadband and Wide-Angle Scanning Capability in Low-Coupled mm-Wave Phased-Arrays Incorporating ILA With HIS Fabricated on FR-4 PCB. IEEE Transactions on Vehicular Technology, 2021, 70, 2076-2088.	6.3	18
22	A Wideband Switched-Beam Antenna Array Fed by Compact Single-Layer Butler Matrix. IEEE Transactions on Antennas and Propagation, 2021, 69, 5130-5135.	5.1	17
23	A Compact Wideband Vertically Polarized End-Fire Millimeter-Wave Antenna Utilizing Slot, Dielectric, and Cavity Resonators. IEEE Transactions on Antennas and Propagation, 2021, 69, 5234-5243.	5.1	17
24	A Software-Programmable Directivity, Beamsteering, and Polarization Reconfigurable Block Cell Antenna Concept for Millimeter-Wave 5G Phased- Array Architectures. IEEE Transactions on Antennas and Propagation, 2021, 69, 146-154.	5.1	16
25	Integrated Resonant Structure for Simultaneous Wireless Power Transfer and Data Telemetry. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 1659-1662.	4.0	15
26	A Single-Layer Vialess Wideband Reflective Polarization Rotator Utilizing Perforated Holes. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 2053-2056.	4.0	15
27	mmWave phased-array with hemispheric coverage for 5G generation cellular handsets. , 2014, , .		14
28	Holistic design considerations for environmentally adaptive 60 GHz beamforming technology. , 2014, 52, 30-38.		13
29	Performance Enhancement in Compact Inverted-L Antenna by Using 1-D EBG Ground Structures and Beam Directors. IEEE Access, 2019, 7, 93264-93274.	4.2	11
30	A Frequency-Reconfigurable Tuner-Loaded Coupled-Fed Frame-Antenna for All-Metal-Shell Handsets. IEEE Access, 2018, 6, 64041-64049.	4.2	10
31	Analytical Design Method and Implementation of Broadband 4 × 4 Nolen Matrix. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 343-355.	4.6	10
32	A Frequency-Reconfigurable Antenna With 1-mm Nonground Portion for Metal-Frame and Full-Display Screen Handset Applications Using Mode Control Method. IEEE Access, 2019, 7, 48037-48045.	4.2	9
33	Highly Reconfigurable Dual-Band Coupler With Independently Tunable Frequency and Coupling Coefficient at the Lower Band. IEEE Transactions on Industrial Electronics, 2021, 68, 2408-2416.	7.9	9
34	Circuit-on-Display: A Flexible, Invisible Hybrid Electromagnetic Sensor Concept. IEEE Journal of Microwaves, 2021, 1, 550-559.	6.5	9
35	A Planar, Polarization-Switchable Endfire and ±Broadside Millimeter-Wave Antenna Array Without Lumped Components. IEEE Transactions on Antennas and Propagation, 2022, 70, 3864-3869.	5.1	9
36	Antenna-on-Display Concept on an Extremely Thin Substrate for Sub-6 GHz Wireless Applications. IEEE Transactions on Antennas and Propagation, 2022, 70, 5929-5934.	5.1	9

#	ARTICLE	IF	CITATIONS
37	37-39 GHz Vertically-Polarized End-fire 5G Antenna Array featuring Electrically Small Profile. , 2018, , .		8
38	Polarization and Frequency-Selective Surface for Vehicular Beamforming Communications Requiring Near-Zero Profile. IEEE Transactions on Vehicular Technology, 2020, 69, 1719-1726.	6.3	7
39	Highly miniaturized vertical end-fire antenna array for mmWave wireless communication. , 2013, , .		6
40	OLED Display-Integrated Optically Invisible Phased Arrays for Millimeter-Wave 5G Cellular Devices. , 2020, , .		6
41	Design and Measurement Considerations of Feeding Network Including Power Divider for Multi-Port Antenna Arrays. , 2019, , .		5
42	Reconfigurable Binary-Amplitude Fresnel Zone Plate for Millimeter-Wave Beamforming. IEEE Transactions on Antennas and Propagation, 2021, 69, 6444-6452.	5.1	5
43	Planar beam steerable lens antenna system using non-uniform feed method. , 2014, , .		4
44	Antenna-on-Display (AoD) for Millimeter-wave 5G Mobile Devices. , 2019, , .		4
45	Tight Coupling Dual-Band Coupler With Large Frequency Ratio and Arbitrary Power Division Ratios Over Two Bands. IEEE Access, 2019, 7, 184489-184499.	4.2	4
46	Adaptive 5G Architecture for an mmWave Antenna Front-End Package Consisting of Tunable Matching Network and Surface-Mount Technology. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 2037-2046.	2.5	4
47	Achieving 360° Coverage Dynamic and Switchable Beamforming Through Resource-Efficient Switchable Antennas for Future mmWave IoT Devices. IEEE Transactions on Industrial Electronics, 2021, 68, 8982-8991.	7.9	4
48	Wideband Transmissive Polarization Rotator With In-Band Notches Enabling Multiband Operation. IEEE Access, 2021, 9, 44751-44756.	4.2	4
49	Planar lens using mixed-order spatial elliptic filter. , 2014, , .		3
50	Radiation Efficiency-Improvement Using a Via-Less, Planar ZOR Antenna for Wireless ECG Sensors on a Lossy Medium. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 1211-1214.	4.0	3
51	Frequency-Reconfigurable mmWave Antenna Loaded with Capacitive Structure Integrated within a Microstrip Line. , 2019, , .		3
52	Efficient Analysis of Electromagnetic Scattering in Post-Wall Waveguides and Its Application to Optimization of Millimeter Wave Filters. IEEE Open Journal of Antennas and Propagation, 2020, 1, 448-455.	3.7	3
53	A Software-Defined mmWave Radio Architecture Comprised of Modular, Controllable Pixels to attain Near-Infinite Pattern, Polarization, and Beam Steering Angles IMS. , 2020, , .		3
54	Metal Stamped Antenna-in-Package for Millimeter-wave Large-scale Phased-array Applications Using Multiphysics Analysis. , 2020, , .		3

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55	Efficient NFC coil antennas for fully enclosed metallic-framed wearable devices. IET Microwaves, Antennas and Propagation, 2020, 14, 211-214.	1.4	3
56	Microwave Sensor for Nondestructive, Volume-Independent Liquid Characterization. , 2022, 6, 1-4.		3
57	A Programmable Reconfigurable Two-Port Half-Loop Antenna Concept for mmWave Wireless Applications. IEEE Open Journal of Antennas and Propagation, 2022, 3, 594-603.	3.7	3
58	Design and testing of a millimeter-wave beam-steering mesh-grid array for 5G generation (5G) mobile communication handset devices. , 2014, , .		2
59	Gain variation of 60 GHz patch antennas due to ground plane dimensions. Microwave and Optical Technology Letters, 2016, 58, 745-747.	1.4	2
60	Guest Editorial Antenna-in-Package, Antenna-on-Chip, Antenna-IC Interface: Joint Design and Cointegration. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2345-2350.	4.0	2
61	Systematically Integrated Phased-Array Antenna Configuration to Enhance Beam Coverage Efficiencies of Millimeter-wave 5G Mobile Devices. , 2020, , .		2
62	Heterogeneous Phased Array Architecture Consisting of AoD and AiP to Enhance Spherical Beamforming Coverage for 5G/6G Cellular Handsets. , 2021, , .		2
63	FR-4 PCB Process-based mm-Wave Phased Array Antenna Using Planar High-Impedance Surfaces. , 2021, , .		2
64	Dome-Shaped mmWave Lens Antenna Optimization for Wide-Angle Scanning and Scan Loss Mitigation Using Geometric Optics and Multiple Scattering. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2022, 7, 142-150.	2.2	2
65	Characterization of SU-8 using terahertz time-domain spectroscopy. , 2013, , .		1
66	A planar, via-less zeroth-order antenna for wearable electrocardiography. , 2014, , .		1
67	High-Efficiency Crossed-Loop 4G LTE Antenna for All Display Metal-Rimmed Smartphones. International Journal of Antennas and Propagation, 2018, 2018, 1-7.	1.2	1
68	Modular, Reconfigurable Block Cell Antenna Concept for Millimeter-wave 5G. , 2019, , .		1
69	Circularly polarized wave beamforming using one-dimensional Fresnel zone plate. Microwave and Optical Technology Letters, 2019, 61, 1263-1267.	1.4	1
70	On the Design of Multiband Antenna Employing AFSR Structure as Ground Plane for Low Out-of-Band RCS. , 2020, , .		1
71	Comments on "Broadband Symmetrical E-Shaped Patch Antenna With Multimode Resonance for 5G Millimeter-Wave Applications" IEEE Transactions on Antennas and Propagation, 2020, 68, 1219-1219.	5.1	1
72	Wheeler Method for Evaluation of Antennas Submerged in Lossy Media. Applied Sciences (Switzerland), 2021, 11, 1862.	2.5	1

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73	Invited Paper: Optically Invisible Antenna-on-Display (AoD) Technologies: Review, Demonstration and Opportunities for Microwave, Millimeter-Wave and Sub-THz Wireless Applications. Digest of Technical Papers SID International Symposium, 2021, 52, 293-296.	0.3	1
74	Efficient Analysis of Radiation From a Dipole Source in Woodpile EBG Structures. IEEE Transactions on Antennas and Propagation, 2022, 70, 389-400.	5.1	1
75	Performance Enhancement of mm-Wave Phased Arrays for Mobile Terminals Through Grounded Coplanar Waveguide Feeding Networks With via Fences. Frontiers in Communications and Networks, 2021, 2, .	3.0	1
76	Gain Variation of 60 GHz Aperture-Coupled Patch Antenna Dependent on the Position on the Ground Plane and Periodic Characteristic. The Journal of Korean Institute of Electromagnetic Engineering and Science, 2019, 30, 803-807.	0.3	1
77	A Software-Defined Reconfigurable Phased-Array Architecture for Beyond 5G Applications. , 2021, , .		1
78	Measurement accuracy enhancement using an optical probe system for electrically small MIMO antennas. Microwave and Optical Technology Letters, 2013, 55, 238-241.	1.4	0
79	60 GHz antenna module featuring spherical coverage for nomadic and mobile Gbps applications. , 2015, , .		0
80	Design and empirical investigation of miniaturized mmWave antenna array modules within cellular devices. , 2015, , .		0
81	Circularly polarized antenna with folded ground and parasitic branch for 60GHz WLAN. , 2016, , .		0
82	Equivalent circuit characterization of a parallel-wire T-junction discontinuity with radiation loss. Microwave and Optical Technology Letters, 2017, 59, 1434-1438.	1.4	0
83	Characterizing Volume Density of Subwavelength Particles at 220-325 GHz Using Deep Neural Network and Nonfeatured Scattering Matrix. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 2240-2243.	4.0	0
84	mmWave Double Cavity-Backed Slot Antenna featuring Electrically Small and Low-Profile. , 2019, , .		0
85	A Low-Profile Wideband Shared-Aperture Dual-Polarized Antenna Utilizing Dual-Function Slot. IEEE Open Journal of Antennas and Propagation, 2020, 1, 95-103.	3.7	0
86	Optically Invisible Touch Sensor Panel Integrated Antenna: Concept and Demonstration at mmWave Spectrum. , 2020, , .		0
87	OLED Touch Display-Integrated Phased-Array Antennas and RF Front-ends Packaging Technology for beyond 5G Wireless Devices. , 2021, , .		0
88	Dual-Polarized End-fire and ±Broadside Millimeter-Wave Antenna Array. , 2021, , .		0
89	Dual-Function Dielectric Layer Enabling Compact Wideband End-Fire Millimeter-Wave Antenna. , 2021, , .		0
90	Analysis of Dielectric Post-Wall Waveguide-based Passive Circuits using Recurrent Neural Network. , 2022, , .		0

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91	Cost-Effective and Compact Antenna Applications Using Planar HIS: Research Survey and Possibility. , 2022, , .		0