

Ramon Gonzalo

List of Publications by Year in descending order

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157
papers

3,381
citations

218677

26
h-index

161849

54
g-index

160
all docs

160
docs citations

160
times ranked

2427
citing authors

#	ARTICLE	IF	CITATIONS
1	Thin AMC Structure for Radar Cross-Section Reduction. IEEE Transactions on Antennas and Propagation, 2007, 55, 3630-3638.	5.1	548
2	Enhanced patch-antenna performance by suppressing surface waves using photonic-bandgap substrates. IEEE Transactions on Microwave Theory and Techniques, 1999, 47, 2131-2138.	4.6	399
3	Broadband Radar Cross-Section Reduction Using AMC Technology. IEEE Transactions on Antennas and Propagation, 2013, 61, 6136-6143.	5.1	319
4	Electromagnetic bandgap antennas and components for microwave and (sub)millimeter wave applications. IEEE Transactions on Antennas and Propagation, 2003, 51, 2667-2677.	5.1	184
5	Measurement of the dielectric constant and loss tangent of high dielectric-constant materials at terahertz frequencies. IEEE Transactions on Microwave Theory and Techniques, 2003, 51, 1062-1066.	4.6	171
6	ABA-regulation of root hydraulic conductivity and aquaporin gene- expression is crucial to the plant shoot rise caused by rhizosphere humic acids. Plant Physiology, 2015, 169, pp.00596.2015.	4.8	72
7	Dual Circularly Polarized Broadside Beam Metasurface Antenna. IEEE Transactions on Antennas and Propagation, 2016, 64, 2944-2953.	5.1	64
8	Coupling Reduction Between Dipole Antenna Elements by Using a Planar Meta-Surface. IEEE Transactions on Antennas and Propagation, 2009, 57, 383-394.	5.1	53
9	Radiation properties of terahertz dipole antenna mounted on photonic crystal. Electronics Letters, 2001, 37, 613.	1.0	44
10	Induction Theorem Analysis of Resonant Nanoparticles: Design of a Huygens Source Nanoparticle Laser. Physical Review Applied, 2014, 1, .	3.8	42
11	Resonant Meta-Surface Superstrate for Single and Multifrequency Dipole Antenna Arrays. IEEE Transactions on Antennas and Propagation, 2008, 56, 951-960.	5.1	40
12	Improved patch antenna performance by using photonic bandgap substrates. Microwave and Optical Technology Letters, 2000, 24, 213-215.	1.4	37
13	Design Guidelines of Horn Antennas That Combine Horizontal and Vertical Corrugations for Satellite Communications. IEEE Transactions on Antennas and Propagation, 2015, 63, 1314-1323.	5.1	37
14	A low-cost fabrication technique for symmetrical and asymmetrical layer-by-layer photonic crystals at submillimeter-wave frequencies. IEEE Transactions on Microwave Theory and Techniques, 2002, 50, 2384-2392.	4.6	35
15	Choked Gaussian antenna: extremely low sidelobe compact antenna design. IEEE Antennas and Wireless Propagation Letters, 2002, 1, 200-202.	4.0	33
16	Modeling of Spirals with Equal Dielectric, Magnetic, and Chiral Susceptibilities. Electromagnetics, 2008, 28, 476-493.	0.7	33
17	EBG Superstrate Array Configuration for the WAAS Space Segment. IEEE Transactions on Antennas and Propagation, 2009, 57, 81-93.	5.1	32
18	On the definition of effective permittivity and permeability for thin composite layers. Journal of Applied Physics, 2007, 101, 114910.	2.5	31

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19	Electromagnetic response and homogenization of grids of ferromagnetic microwires. Journal of Applied Physics, 2011, 110, .	2.5	31
20	Improved radiation pattern performance of Gaussian profiled horn antennas. IEEE Transactions on Antennas and Propagation, 2002, 50, 1505-1513.	5.1	28
21	Ultra-wide band corrugated gaussian profiled horn antenna design. IEEE Microwave and Wireless Components Letters, 2002, 12, 20-21.	3.2	27
22	A Metamaterial T-junction Power Divider. IEEE Microwave and Wireless Components Letters, 2007, 17, 172-174.	3.2	27
23	Manufacturing Tolerance Analysis, Fabrication, and Characterization of 3-D Submillimeter-Wave Electromagnetic-Bandgap Crystals. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 672-681.	4.6	27
24	Electromagnetic cloaking with canonical spiral inclusions. New Journal of Physics, 2008, 10, 115037.	2.9	27
25	Electromagnetic-Bandgap Waveguide for the Millimeter Range. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 1734-1741.	4.6	27
26	Experimental Validation of a Ku-Band Dual-Circularly Polarized Metasurface Antenna. IEEE Transactions on Antennas and Propagation, 2018, 66, 1153-1159.	5.1	27
27	Innovative High-Gain Corrugated Horn Antenna Combining Horizontal and Vertical Corrugations. IEEE Antennas and Wireless Propagation Letters, 2006, 5, 380-383.	4.0	26
28	Terahertz time domain spectroscopy allows contactless monitoring of grapevine water status. Frontiers in Plant Science, 2015, 6, 404.	3.6	25
29	Modeling and Analysis of Composite Antenna Superstrates Consisting on Grids of Loaded Wires. IEEE Transactions on Antennas and Propagation, 2007, 55, 2692-2700.	5.1	24
30	Superbackscattering from single dielectric particles. Journal of Optics (United Kingdom), 2015, 17, 072001.	2.2	24
31	Magnetotunable left-handed FeSiB ferromagnetic microwires. Optics Letters, 2010, 35, 2161.	3.3	22
32	Low Sidelobe Corrugated Horn Antennas for Radio Telescopes to Maximize $\{m G/T\}_{m s}$. IEEE Transactions on Antennas and Propagation, 2011, 59, 1886-1893.	5.1	21
33	Monitoring Water Status of Grapevine by Means of THz Waves. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 507-513.	2.2	21
34	Improved 2-D photonic bandgap structures in microstrip technology. , 1999, 22, 207-211.		20
35	Highly efficient dipole antenna with planar meta-surface. Electronics Letters, 2007, 43, 850.	1.0	20
36	Theoretical Modeling and Experimental Verification of the Scattering From a Ferromagnetic Microwire. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 517-526.	4.6	20

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37	Electromagnetic force density in electrically and magnetically polarizable media. <i>Physical Review A</i> , 2013, 88, .	2.5	20
38	Upper Bounds on Scattering Processes and Metamaterial-Inspired Structures That Reach Them. <i>IEEE Transactions on Antennas and Propagation</i> , 2014, 62, 6344-6353.	5.1	20
39	Fourth-Harmonic Schottky Diode Mixer Development at Sub-Millimeter Frequencies. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2015, 5, 518-520.	3.1	20
40	Remote Sensing for Plant Water Content Monitoring: A Review. <i>Remote Sensing</i> , 2021, 13, 2088.	4.0	20
41	Electromagnetic crystals in microstrip technology. <i>Optical and Quantum Electronics</i> , 2002, 34, 279-295.	3.3	19
42	Mesoscopic effective material parameters for thin layers modeled as single and double grids of interacting loaded wires. <i>Metamaterials</i> , 2007, 1, 89-105.	2.2	19
43	Near-field electromagnetic trapping through curl-spin forces. <i>Physical Review A</i> , 2013, 87, .	2.5	19
44	TeraSCREEN: multi-frequency multi-mode Terahertz screening for border checks. <i>Proceedings of SPIE</i> , 2014, , .	0.8	19
45	USE of COC substrates for millimeter-wave devices. <i>Microwave and Optical Technology Letters</i> , 2015, 57, 371-377.	1.4	19
46	A Simplified Design Inline Microstrip-to-Waveguide Transition. <i>Electronics (Switzerland)</i> , 2018, 7, 215.	3.1	19
47	A Multipolar Analysis of Near-Field Absorption and Scattering Processes. <i>IEEE Transactions on Antennas and Propagation</i> , 2013, 61, 5184-5199.	5.1	18
48	Least Upper Bounds of the Powers Extracted and Scattered by Bi-anisotropic Particles. <i>IEEE Transactions on Antennas and Propagation</i> , 2014, 62, 4726-4735.	5.1	18
49	The effect of dielectric permittivity on the properties of photonic bandgap devices. <i>Microwave and Optical Technology Letters</i> , 1999, 23, 92-95.	1.4	17
50	Optimal horn antenna design to excite high-order Gaussian beam modes from TE/sub 0m/ smooth circular waveguide modes. <i>IEEE Transactions on Antennas and Propagation</i> , 1999, 47, 1440-1448.	5.1	17
51	SURFACE WAVES OF FINITE SIZE ELECTROMAGNETIC BAND GAP WOODPILE STRUCTURES. <i>Progress in Electromagnetics Research B</i> , 2011, 28, 19-34.	1.0	17
52	Sub-Millimeter-Wave Imaging Array at 500 GHz Based on 3-D Electromagnetic-Bandgap Material. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2008, 56, 2556-2565.	4.6	16
53	Multi-Functional Antennas Based on Meta-Surfaces. <i>IEEE Transactions on Antennas and Propagation</i> , 2012, 60, 3020-3024.	5.1	16
54	An Inline Microstrip-to-Waveguide Transition Operating in the Full W-Band. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2015, 36, 734-744.	2.2	16

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55	Magnetic dipole super-resonances and their impact on mechanical forces at optical frequencies. Optics Express, 2014, 22, 8640.	3.4	15
56	A 250 GHz Subharmonic Mixer Design Using EBG Technology. IEEE Transactions on Antennas and Propagation, 2007, 55, 2974-2982.	5.1	14
57	Decoupling of Multifrequency Dipole Antenna Arrays for Microwave Imaging Applications. International Journal of Antennas and Propagation, 2010, 2010, 1-8.	1.2	14
58	Quasioptical Transmission Lines for ECRH at TJ-II Stellarator. Journal of Infrared, Millimeter and Terahertz Waves, 2000, 21, 1945-1957.	0.6	13
59	Experimental verification of the reduction of coupling between dipole antennas by using a woodpile substrate. IEEE Transactions on Antennas and Propagation, 2006, 54, 2105-2112.	5.1	13
60	Power transmission enhancement by means of planar meta-surfaces. Journal of Optics, 2007, 9, S308-S314.	1.5	12
61	On the effective permittivity of arrays of ferromagnetic wires. Journal of Applied Physics, 2011, 110, 104902.	2.5	12
62	Design and Test of a 0.5 THz Dipole Antenna With Integrated Schottky Diode Detector on a High Dielectric Constant Ceramic Electromagnetic Bandgap Substrate. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 584-593.	3.1	12
63	Superbackscattering Antenna Arrays. IEEE Transactions on Antennas and Propagation, 2015, 63, 2011-2021.	5.1	12
64	A Chebyshev Transformer-Based Microstri-to-Groove-Gap-Waveguide Inline Transition for MMIC Packaging. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2019, 9, 1595-1602.	2.5	12
65	Reconfigurable Artificial Surfaces Based on Impedance Loaded Wires Close to a Ground Plane. IEEE Transactions on Antennas and Propagation, 2012, 60, 1921-1930.	5.1	11
66	Experimental analysis of different measurement techniques for characterization of millimeter-wave mixers. Microwave and Optical Technology Letters, 2014, 56, 1441-1447.	1.4	11
67	Multispectral mm-wave imaging: materials and images. , 2008, , .		10
68	Enhanced directed emission from metamaterial based radiation source. Applied Physics Letters, 2008, 92, 204103.	3.3	10
69	Resonance frequencies of cavities in three-dimensional electromagnetic band gap structures. Journal of Applied Physics, 2009, 106, 014901.	2.5	10
70	An inline microstrip-to-waveguide transition operating in the full W-Band based on a Chebyshev multisection transformer. , 2016, , .		10
71	SYMMETRICAL PYRAMIDAL HORN ANTENNAS BASED ON EBG STRUCTURES. Progress in Electromagnetics Research B, 2011, 29, 1-22.	1.0	9
72	300 GHz Optoelectronic Transmitter Combining Integrated Photonics and Electronic Multipliers for Wireless Communication. Photonics, 2019, 6, 35.	2.0	9

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73	Silicon Integrated Subharmonic Mixer on a Photonic-Crystal Platform. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 79-89.	3.1	8
74	Gaussian Profiled Horn Antenna for HISPASAT 1C Satellite. Journal of Infrared, Millimeter and Terahertz Waves, 1999, 20, 1809-1815.	0.6	7
75	Design and characterisation of a high efficiency ceramic EBG patch antenna. IET Microwaves, Antennas and Propagation, 2010, 4, 1056.	1.4	7
76	Multifrequency Radiator With Spatial Diversity Based on Metasurfaces. IEEE Antennas and Wireless Propagation Letters, 2012, 11, 519-522.	4.0	7
77	Evanescently Fed Electromagnetic Band-Gap Horn Antennas and Arrays. IEEE Transactions on Antennas and Propagation, 2012, 60, 2635-2644.	5.1	7
78	Experimental Explosive Characterization for Counterterrorist Investigation. Journal of Infrared, Millimeter, and Terahertz Waves, 2013, 34, 468-479.	2.2	7
79	Full W-Band microstrip-to-waveguide inline transition. , 2014, , .		7
80	Optimization of a Pin Surface as a Solution to Suppress Cavity Modes in a Packaged W-Band Microstrip Receiver. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2014, 4, 975-982.	2.5	7
81	Analysis of square Fresnel Zone Plate Lens for dual band detectors. Journal of Infrared, Millimeter, and Terahertz Waves, 2014, 35, 525-535.	2.2	7
82	Design of electromagnetic crystal filters for rectangular waveguides. Microwave and Optical Technology Letters, 2001, 30, 81-84.	1.4	6
83	Simulated and Measured Performance of a Patch Antenna on a 2-Dimensional Photonic Crystals Substrate. Progress in Electromagnetics Research, 2003, 41, 257-269.	4.4	6
84	Electromagnetic crystal technology for waveguides and bends at microwave frequencies. Electronics Letters, 2005, 41, 421.	1.0	6
85	Modifications of the woodpile structure for the improvement of its performance as substrate for dipole antennas. IET Microwaves, Antennas and Propagation, 2007, 1, 226.	1.4	6
86	Superbackscattering nanoparticle dimers. Nanotechnology, 2015, 26, 274001.	2.6	6
87	Water Content Continuous Monitoring of Grapevine Xylem Tissue Using a Portable Low-Power Cost-Effective FMCW Radar. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 5595-5605.	6.3	6
88	A Gap Waveguide-Based Compact Rectangular Waveguide to a Packaged Microstrip Inline Transition. Applied Sciences (Switzerland), 2020, 10, 4979.	2.5	6
89	Beam waveguide for ECRH at TJ-II. Journal of Infrared, Millimeter and Terahertz Waves, 1997, 18, 1161-1168.	0.6	5
90	Title is missing!. Journal of Infrared, Millimeter and Terahertz Waves, 1999, 20, 1757-1767.	0.6	5

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91	Reply to "Comments on 'Choked Gaussian antenna: extremely low sidelobe compact antenna design'". IEEE Antennas and Wireless Propagation Letters, 2003, 2, 364-366.	4.0	5
92	High-K EBG substrates for phase-array patch-antenna configurations. Microwave and Optical Technology Letters, 2004, 43, 527-532.	1.4	5
93	Transmission enhancement between rectangular waveguides by means of left-handed media. Electronics Letters, 2005, 41, 725.	1.0	5
94	Radiation performances of a dipole array configuration inserted in a left-handed media. , 0, , .		5
95	A Comprehensive Analysis of the Absorption Spectrum of Conducting Ferromagnetic Wires. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 2055-2065.	4.6	5
96	Combination of AMC and PEC cells for RCS applications. , 2007, , .		4
97	Multiband EBG navigation antenna. , 2009, , .		4
98	Subharmonic Mixer Based on EBG Technology. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 838-845.	3.1	4
99	Design of 300 GHz Combined Doubler/Subharmonic Mixer Based on Schottky Diodes with Integrated MMIC Based Local Oscillator. Electronics (Switzerland), 2020, 9, 2112.	3.1	4
100	Active THz imaging system to measure water content evolution in leaves. , 2011, , .		3
101	Use of low loss substrate for developing sub-millimeter-wave mixers. , 2014, , .		3
102	Optical trapping in the presence of higher order mode sources and interactions. Journal of Optics (United Kingdom), 2014, 16, 114024.	2.2	3
103	IR-Fresnel zone plate lens acting as THz antenna. , 2017, , .		3
104	Advanced Feeds for mm-Wave Antenna Systems. Signals and Communication Technology, 2018, , 75-110.	0.5	3
105	Enhancement of the Power Radiated by a Dipole Antenna at Boresight by Means of a Left Handed Superstrate. , 0, , .		2
106	Millimetre-wave material properties. , 2007, , .		2
107	Modelling and Analysis of Composite Antenna Superstrates Based on Grids of Dipoles and Wires. , 2007, , .		2
108	Reflection Properties of a planar structure combining AMC and PEC cells. , 2007, , .		2

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109	Near-field measurement of a planar meta-surface illuminated by dipole antennas. , 2008, , .		2
110	Active THz inspection of water content in plants. Proceedings of SPIE, 2010, , .	0.8	2
111	Metamaterial-based cloaking with sparse distribution of spiral resonators. , 2010, , .		2
112	Explosives characterization in terahertz range. Proceedings of SPIE, 2011, , .	0.8	2
113	Experimental study of the antenna influence in RTLS based-on RFID. , 2012, , .		2
114	Design and characterization of W-band components in planar technology. , 2012, , .		2
115	Fe-Rich Ferromagnetic Wires for Mechanical-Stress Self-Sensing Materials. IEEE Transactions on Microwave Theory and Techniques, 2012, 60, 2752-2759.	4.6	2
116	CIRCUIT AND MULTIPOLAR APPROACHES TO INVESTIGATE THE BALANCE OF POWERS IN 2D SCATTERING PROBLEMS. Progress in Electromagnetics Research, 2013, 142, 799-823.	4.4	2
117	Mm-wave imaging results based on a frequency scanning delay line waveguide horn antenna array. Microwave and Optical Technology Letters, 2014, 56, 2851-2860.	1.4	2
118	Dual band sub-mm and IR detector based on square Fresnel zone plate lens. , 2014, , .		2
119	Full W-band Microstrip Fed Vivaldi Antenna. Journal of Infrared, Millimeter, and Terahertz Waves, 2016, 37, 786-794.	2.2	2
120	Applications of Electromagnetic Crystals in Microstrip Technology. , 2000, , .		1
121	METAMORPHOSE European Doctoral Programs on Metamaterials state-of-the-art [Report of the Transnational Committee]. IEEE Antennas and Propagation Magazine, 2006, 48, 219-223.	1.4	1
122	Low Profile Multi-Frequency Dipole Antenna Array Based on Planar Meta-Surfaces. , 2007, , .		1
123	Design and characterisation of an EBG imaging array at sub-millimetre wave frequencies. , 2007, , .		1
124	Mm-wave stand-off screening and detection. , 2009, , .		1
125	Design of an EBG Compact Low-Mass Antenna in C-band with dual circular polarisation. , 2012, , .		1
126	Dual band EBG superstrate antenna for TT&C satellite applications in C-band. , 2013, , .		1

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127	High dielectric constant EBG technology to avoid gratings lobes and scan blindness in array configurations. <i>Journal of Electromagnetic Waves and Applications</i> , 2013, 27, 2341-2354.	1.6	1
128	Millimeter-wave mixer measurement: Comparison of different methods. , 2013, , .		1
129	Dispersion Properties of an Elliptical Patch with Cross-Shaped Aperture for Synchronized Propagation of Transverse Magnetic and Electric Surface Waves. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 472.	2.5	1
130	Modified Soret Lenses for Dual-Band Integrated Detectors at Millimetre and Submillimetre Wavelengths. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2020, 10, 107-117.	3.1	1
131	A Millimeter-Wave 4th-Harmonic Schottky Diode Mixer with Integrated Local Oscillator. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 7238.	2.5	1
132	Arrangements of via holes in microstrip lines as metallodielectric periodic structures. <i>Microwave and Optical Technology Letters</i> , 2000, 26, 372-379.	1.4	0
133	Metamaterials technology for sub-mm wave imaging. , 2006, , .		0
134	Development of micro-structured metamaterials for innovative antenna layouts. , 2007, , .		0
135	Frequency selective transmission scheme for ebg horn antennas. , 2010, , .		0
136	Highly-directive aperture-coupled microstrip patch antenna based on planar meta-surface. , 2010, , .		0
137	Design of millimeter wave heterodyne receivers based on metamaterial technology. , 2010, , .		0
138	Design of a dual-frequency highly-directive planar antenna with meta-surfaces. , 2010, , .		0
139	All-dielectric woodpile horn antennas. , 2011, , .		0
140	Theory of ferromagnetic wires resonating in the proximity of a ground plane: Application to artificial impedance surfaces. <i>Journal of Applied Physics</i> , 2012, 111, 064911.	2.5	0
141	All-dielectric EBG horn antennas for submillimeter wavelength range. , 2012, , .		0
142	Characterization of ferromagnetic wires for self-sensing materials. , 2012, , .		0
143	Artificial impedance surfaces based on ferromagnetic wires. , 2012, , .		0
144	Properties of the Input Impedance of a THz Dipole Antenna on Top of a Woodpile Structure. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2013, 3, 731-739.	3.1	0

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145	EBG superstrate based antennas for space applications. , 2013, , .		0
146	Compact and weightlight electromagnetic band gap superstrate antenna for Câ€band TT&C applications. Microwave and Optical Technology Letters, 2013, 55, 1457-1461.	1.4	0
147	Huygens source nanoparticle lasers and their applications. , 2014, , .		0
148	Superbackscattering nanoparticle architectures. , 2015, , .		0
149	Dual-band integrated detector for THz and IR based on quasi-spiral antenna coupled to schottky diode. , 2016, , .		0
150	Towards a common integration platform for photonics and electronics. Challenges for assembly and packaging. , 2016, , .		0
151	A quasi-spiral antenna for THz â€” IR dual-band sensors. , 2016, , .		0
152	Dual-pol metasurface antenna supporting transverse magnetic and electric surface waves. , 2016, , .		0
153	Implementation of a THz quasi-spiral antenna for THz-IR detector. , 2017, , .		0
154	Design of electronic subsystems for a 300 GHz wireless communication system. , 2017, , .		0
155	Development of electronic subsystems for a terahertz wireless link. , 2017, , .		0
156	Comparison of Fourth-harmonic and Combined Doubler/Subharmonic Mixer with integrated MMIC based Local Oscillator. , 2019, , .		0
157	Design of a Planar Antenna on a Photonic-Crystal Silicon Cavity for a Submillimetre Wave Receiver. , 2021, , .		0