

Marta Gil Barba

List of Publications by Year in descending order

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80
papers

2,243
citations

236612

25
h-index

233125

45
g-index

81
all docs

81
docs citations

81
times ranked

1127
citing authors

#	ARTICLE	IF	CITATIONS
1	On the electrical characteristics of complementary metamaterial resonators. <i>IEEE Microwave and Wireless Components Letters</i> , 2006, 16, 543-545.	2.0	218
2	Composite Right/Left-Handed Metamaterial Transmission Lines Based on Complementary Split-Rings Resonators and Their Applications to Very Wideband and Compact Filter Design. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2007, 55, 1296-1304.	2.9	152
3	Submersible Printed Split-Ring Resonator-Based Sensor for Thin-Film Detection and Permittivity Characterization. <i>IEEE Sensors Journal</i> , 2016, 16, 3587-3596.	2.4	148
4	Metamaterial filters: A review. <i>Metamaterials</i> , 2008, 2, 186-197.	2.2	127
5	Broadband Resonant-Type Metamaterial Transmission Lines. <i>IEEE Microwave and Wireless Components Letters</i> , 2007, 17, 97-99.	2.0	92
6	Application of Composite Right/Left Handed (CRLH) Transmission Lines based on Complementary Split Ring Resonators (CSRRLs) to the Design of Dual-Band Microwave Components. <i>IEEE Microwave and Wireless Components Letters</i> , 2008, 18, 524-526.	2.0	84
7	Characterization of miniaturized metamaterial resonators coupled to planar transmission lines through parameter extraction. <i>Journal of Applied Physics</i> , 2008, 104, 114501.	1.1	67
8	Planar Microwave Resonant Sensors: A Review and Recent Developments. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2615.	1.3	67
9	Miniaturisation of planar microwave circuits by using resonant-type left-handed transmission lines. <i>IET Microwaves, Antennas and Propagation</i> , 2007, 1, 73.	0.7	59
10	Differential Sensor Based on Electroinductive Wave Transmission Lines for Dielectric Constant Measurements and Defect Detection. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 1876-1886.	3.1	58
11	An Analytical Method to Implement High-Sensitivity Transmission Line Differential Sensors for Dielectric Constant Measurements. <i>IEEE Sensors Journal</i> , 2020, 20, 178-184.	2.4	58
12	On the Sensitivity of Reflective-Mode Phase-Variation Sensors Based on Open-Ended Stepped-Impedance Transmission Lines: Theoretical Analysis and Experimental Validation. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2021, 69, 308-324.	2.9	52
13	Emitter discharge variability of subsurface drip irrigation in uniform soils: effect on water-application uniformity. <i>Irrigation Science</i> , 2008, 26, 451-458.	1.3	50
14	Applications of resonant-type metamaterial transmission lines to the design of enhanced bandwidth components with compact dimensions. <i>Microwave and Optical Technology Letters</i> , 2008, 50, 127-134.	0.9	50
15	On the transmission properties of left-handed microstrip lines implemented by complementary split rings resonators. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 2006, 19, 87-103.	1.2	48
16	Differential Microfluidic Sensors Based on Dumbbell-Shaped Defect Ground Structures in Microstrip Technology: Analysis, Optimization, and Applications. <i>Sensors</i> , 2019, 19, 3189.	2.1	46
17	Differential-Mode to Common-Mode Conversion Detector Based on Rat-Race Hybrid Couplers: Analysis and Application to Differential Sensors and Comparators. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2020, 68, 1312-1325.	2.9	45
18	Highly Sensitive Reflective-Mode Phase-Variation Permittivity Sensor Based on a Coplanar Waveguide Terminated With an Open Complementary Split Ring Resonator (OCSRRL). <i>IEEE Access</i> , 2021, 9, 27928-27944.	2.6	42

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19	Electrically tunable split-ring resonators at microwave frequencies based on barium-strontium-titanate thick films. <i>Electronics Letters</i> , 2009, 45, 417.	0.5	39
20	Highly Sensitive Phase Variation Sensors Based on Step-Impedance Coplanar Waveguide (CPW) Transmission Lines. <i>IEEE Sensors Journal</i> , 2021, 21, 2864-2872.	2.4	36
21	A Reflective-Mode Phase-Variation Displacement Sensor. <i>IEEE Access</i> , 2020, 8, 189565-189575.	2.6	34
22	Phase-Variation Microwave Sensor for Permittivity Measurements Based on a High-Impedance Half-Wavelength Transmission Line. <i>IEEE Sensors Journal</i> , 2021, 21, 10647-10656.	2.4	33
23	Parametric analysis of microstrip lines loaded with complementary split ring resonators. <i>Microwave and Optical Technology Letters</i> , 2008, 50, 2093-2096.	0.9	31
24	Synthesis and applications of new left handed microstrip lines with complementary split-ring resonators etched on the signal strip. <i>IET Microwaves, Antennas and Propagation</i> , 2008, 2, 324-330.	0.7	30
25	Microfluidic reflective-mode differential sensor based on open split ring resonators (OSRRs). <i>International Journal of Microwave and Wireless Technologies</i> , 2020, 12, 588-597.	1.5	30
26	Accurate circuit analysis of resonant-type left handed transmission lines with inter-resonator coupling. <i>Journal of Applied Physics</i> , 2006, 100, 074908.	1.1	26
27	Application of metamaterial transmission lines to design of quadrature phase shifters. <i>Electronics Letters</i> , 2007, 43, 1098.	0.5	26
28	Strategies for the miniaturization of metamaterial resonators. <i>Microwave and Optical Technology Letters</i> , 2008, 50, 1263-1270.	0.9	25
29	Highly Sensitive Reflective-Mode Defect Detectors and Dielectric Constant Sensors Based on Open-Ended Stepped-Impedance Transmission Lines. <i>Sensors</i> , 2020, 20, 6236.	2.1	24
30	Frequency-Variation Sensors for Permittivity Measurements Based on Dumbbell-Shaped Defect Ground Structures (DB-DGS): Analytical Method and Sensitivity Analysis. <i>IEEE Sensors Journal</i> , 2022, 22, 9378-9386.	2.4	24
31	Metamaterial transmission lines based on broad-side coupled spiral resonators. <i>Electronics Letters</i> , 2007, 43, 530.	0.5	22
32	Circuit Analysis of a Coplanar Waveguide (CPW) Terminated With a Step-Impedance Resonator (SIR) for Highly Sensitive One-Port Permittivity Sensing. <i>IEEE Access</i> , 2022, 10, 62597-62612.	2.6	21
33	Compact Rat-Race Hybrid Coupler Implemented Through Artificial Left Handed and Right Handed Lines. <i>IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium</i> , 2007, , .	0.0	20
34	Generalized Model for Multiband Metamaterial Transmission Lines. <i>IEEE Microwave and Wireless Components Letters</i> , 2008, 18, 728-730.	2.0	20
35	Planar Phase-Variation Microwave Sensors for Material Characterization: A Review and Comparison of Various Approaches. <i>Sensors</i> , 2021, 21, 1542.	2.1	20
36	Microwave Sensors Based on Resonant Elements. <i>Sensors</i> , 2020, 20, 3375.	2.1	19

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37	Left-handed and right-handed transmission properties of microstrip lines loaded with complementary split rings resonators. <i>Microwave and Optical Technology Letters</i> , 2006, 48, 2508-2511.	0.9	18
38	Metamaterial filters with attenuation poles in the pass band for ultra wide band applications. <i>Microwave and Optical Technology Letters</i> , 2007, 49, 2909-2913.	0.9	16
39	Modelling metamaterial transmission lines: a review and recent developments. <i>Opto-electronics Review</i> , 2008, 16, .	2.4	15
40	Characterization of electrolyte content in urine samples through a differential microfluidic sensor based on dumbbell-shaped defected ground structures. <i>International Journal of Microwave and Wireless Technologies</i> , 2020, 12, 817-824.	1.5	15
41	Metamaterial transmission lines with extreme impedance values. <i>Microwave and Optical Technology Letters</i> , 2006, 48, 2499-2506.	0.9	14
42	Revising the equivalent circuit models of resonant-type metamaterial transmission lines. , 2008, , .		14
43	Highly Sensitive Defect Detectors and Comparators Exploiting Port Imbalance in Rat-Race Couplers Loaded With Step-Impedance Open-Ended Transmission Lines. <i>IEEE Sensors Journal</i> , 2021, 21, 26731-26745.	2.4	14
44	Microwave circuit miniaturization with complementary spiral resonators: Application to high-pass filters and dual-band components. <i>Microwave and Optical Technology Letters</i> , 2009, 51, 2741-2745.	0.9	12
45	Composite right-/left-handed coplanar waveguides loaded with split ring resonators and their application to high-pass filters. <i>IET Microwaves, Antennas and Propagation</i> , 2010, 4, 822.	0.7	12
46	Artificial Left-handed Transmission Lines for Small Size Microwave Components: Application to Power Dividers. , 2006, , .		11
47	Towards the automatic layout synthesis in resonant-type metamaterial transmission lines. <i>IET Microwaves, Antennas and Propagation</i> , 2010, 4, 1007.	0.7	11
48	Selective modal excitation in coupled piezoelectric microcantilevers. <i>Microsystem Technologies</i> , 2012, 18, 917-924.	1.2	10
49	Super Compact (<1cm ²) Band Pass Filters with Wide Bandwidth and High Selectivity at C-band. , 2006, , .		9
50	Applications of Right/Left Handed and Resonant Left Handed Transmission Lines for Microwave Circuit Design. , 2006, , .		9
51	Tunable sub-wavelength resonators based on barium-strontium-titanate thick-film technology. <i>IET Microwaves, Antennas and Propagation</i> , 2011, 5, 316.	0.7	9
52	Limitations and Solutions of Resonant-Type Metamaterial Transmission Lines for Filter Applications: the Hybrid Approach. , 2006, , .		8
53	Low-pass and high-pass microwave filters with transmission zero based on metamaterial concepts. , 2009, , .		8
54	Piezoelectric micro-scale tuning fork resonators for sensing applications. , 2011, , .		8

#	ARTICLE	IF	CITATIONS
55	SRR- and CSRR-based Metamaterial Transmission Lines: Modeling and Comparison. , 2009, , .		7
56	Synthesis of planar microwave circuits through aggressive space mapping using commercially available software packages. International Journal of RF and Microwave Computer-Aided Engineering, 2010, 20, 527-534.	0.8	7
57	On the dispersion characteristics of metamaterial transmission lines. Journal of Applied Physics, 2007, 102, 074911.	1.1	6
58	Dispersion engineering with resonant-type metamaterial transmission lines. Laser and Photonics Reviews, 2009, 3, 12-29.	4.4	6
59	Size Reduction of SRRs for Metamaterial and Left Handed Media Design. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 266-269.	0.4	6
60	New Left Handed Microstrip Lines with Complementary Split Rings Resonators (CSRRs) Etched in the Signal Strip. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	5
61	Open-Ended-Line Reflective-Mode Phase-Variation Sensors for Dielectric Constant Measurements. , 2020, , .		5
62	Compact Rat-race Hybrid Based on Complementary Split Rings Resonators. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 248-250.	0.4	5
63	A Microwave Microfluidic Reflective-Mode Phase-Variation Sensor. , 2021, , .		5
64	Electrically Small Resonators for Metamaterial and Microwave Circuit Design. , 0, , .		4
65	On the Sensitivity of Microwave Sensors based on Slot Resonators and Frequency Variation. , 2019, , .		4
66	Ultra compact band pass filters implemented through complementary spiral resonators (CSRs). , 2008, , .		3
67	Multimodal characterisation of high-Q piezoelectric micro-tuning forks. IET Circuits, Devices and Systems, 2013, 7, 361-367.	0.9	3
68	Split-Ring Resonator-based sensor for thin-film sensing applications. , 2016, , .		3
69	Microstrip Lines Loaded with Metamaterial-Inspired Resonators for Microwave Sensors/Comparators with Optimized Sensitivity. , 2019, , .		3
70	Electro-inductive Wave Transmission Line based Microfluidic Microwave Sensor. , 2020, , .		3
71	Modelling Complementary-Split-Rings-Resonator (CSRR) left-handed lines with inter-resonator's coupling. , 0, , .		2
72	On the effects of resonator's electrical size on bandwidth in resonant-type metamaterial transmission lines. Microwave and Optical Technology Letters, 2010, 52, 1526-1530.	0.9	2

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73	Automated synthesis of resonant-type metamaterial transmission lines using aggressive space mapping. , 2010, , .		2
74	Automated synthesis of resonant-type metamaterial transmission lines using aggressive space mapping. , 2010, , .		2
75	Piezoelectric AlN-actuated micro-tuning forks for sensing applications. Proceedings of SPIE, 2011, , .	0.8	2
76	Characterization of Metamaterial Transmission Lines with Coupled Resonators Through Parameter Extraction. , 2012, , .		1
77	Engineering the electrical characteristics of resonant type metamaterial transmission lines. , 2008, , .		0
78	Size Reduction and Dispersion/Impedance Engineering with Resonant Type Metamaterial Transmission Lines: Current Status and Future Applications. , 2009, , .		0
79	Differential Microfluidic Sensors based on Electroinductive-Wave (EIW) Transmission Lines. , 2020, , .		0
80	On the Capacitance of Slotted Metamaterial Resonators for Frequency-Variation Permittivity Sensing. , 2022, , .		0