Marta Gil Barba

List of Publications by Year
in descending order

80	2,243	236612	233125
papers	citations	25 h-index	45 g-index

81	81	81	1127
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Frequency-Variation Sensors for Permittivity Measurements Based on Dumbbell-Shaped Defect Ground Structures (DB-DGS): Analytical Method and Sensitivity Analysis. IEEE Sensors Journal, 2022, 22, 9378-9386.	2.4	24
2	On the Capacitance of Slotted Metamaterial Resonators for Frequency-Variation Permittivity Sensing. , 2022, , .		0
3	Circuit Analysis of a Coplanar Waveguide (CPW) Terminated With a Step-Impedance Resonator (SIR) for Highly Sensitive One-Port Permittivity Sensing. IEEE Access, 2022, 10, 62597-62612.	2.6	21
4	On the Sensitivity of Reflective-Mode Phase-Variation Sensors Based on Open-Ended Stepped-Impedance Transmission Lines: Theoretical Analysis and Experimental Validation. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 308-324.	2.9	52
5	Highly Sensitive Phase Variation Sensors Based on Step-Impedance Coplanar Waveguide (CPW) Transmission Lines. IEEE Sensors Journal, 2021, 21, 2864-2872.	2.4	36
6	Highly Sensitive Reflective-Mode Phase-Variation Permittivity Sensor Based on a Coplanar Waveguide Terminated With an Open Complementary Split Ring Resonator (OCSRR). IEEE Access, 2021, 9, 27928-27944.	2.6	42
7	Planar Phase-Variation Microwave Sensors for Material Characterization: A Review and Comparison of Various Approaches. Sensors, 2021, 21, 1542.	2.1	20
8	Phase-Variation Microwave Sensor for Permittivity Measurements Based on a High-Impedance Half-Wavelength Transmission Line. IEEE Sensors Journal, 2021, 21, 10647-10656.	2.4	33
9	Highly Sensitive Defect Detectors and Comparators Exploiting Port Imbalance in Rat-Race Couplers Loaded With Step-Impedance Open-Ended Transmission Lines. IEEE Sensors Journal, 2021, 21, 26731-26745.	2.4	14
10	A Microwave Microfluidic Reflective-Mode Phase-Variation Sensor. , 2021, , .		5
11	Differential Sensor Based on Electroinductive Wave Transmission Lines for Dielectric Constant Measurements and Defect Detection. IEEE Transactions on Antennas and Propagation, 2020, 68, 1876-1886.	3.1	58
12	An Analytical Method to Implement High-Sensitivity Transmission Line Differential Sensors for Dielectric Constant Measurements. IEEE Sensors Journal, 2020, 20, 178-184.	2.4	58
13	Differential-Mode to Common-Mode Conversion Detector Based on Rat-Race Hybrid Couplers: Analysis and Application to Differential Sensors and Comparators. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 1312-1325.	2.9	45
14	Highly Sensitive Reflective-Mode Defect Detectors and Dielectric Constant Sensors Based on Open-Ended Stepped-Impedance Transmission Lines. Sensors, 2020, 20, 6236.	2.1	24
15	A Reflective-Mode Phase-Variation Displacement Sensor. IEEE Access, 2020, 8, 189565-189575.	2.6	34
16	Open-Ended-Line Reflective-Mode Phase-Variation Sensors for Dielectric Constant Measurements. , 2020, , .		5
17	Characterization of electrolyte content in urine samples through a differential microfluidic sensor based on dumbbell-shaped defected ground structures. International Journal of Microwave and Wireless Technologies, 2020, 12, 817-824.	1.5	15
18	Microfluidic reflective-mode differential sensor based on open split ring resonators (OSRRs). International Journal of Microwave and Wireless Technologies, 2020, 12, 588-597.	1.5	30

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19	Microwave Sensors Based on Resonant Elements. Sensors, 2020, 20, 3375.	2.1	19
20	Planar Microwave Resonant Sensors: A Review and Recent Developments. Applied Sciences (Switzerland), 2020, 10, 2615.	1.3	67
21	Electro-inductive Wave Transmission Line based Microfluidic Microwave Sensor. , 2020, , .		3
22	Differential Microfluidic Sensors based on Electroinductive-Wave (EIW) Transmission Lines. , 2020, , .		0
23	Differential Microfluidic Sensors Based on Dumbbell-Shaped Defect Ground Structures in Microstrip Technology: Analysis, Optimization, and Applications. Sensors, 2019, 19, 3189.	2.1	46
24	On the Sensitivity of Microwave Sensors based on Slot Resonators and Frequency Variation. , 2019, , .		4
25	Microstrip Lines Loaded with Metamaterial-Inspired Resonators for Microwave Sensors/Comparators with Optimized Sensitivity. , 2019, , .		3
26	Split-Ring Resonator-based sensor for thin-film sensing applications. , 2016, , .		3
27	Submersible Printed Split-Ring Resonator-Based Sensor for Thin-Film Detection and Permittivity Characterization. IEEE Sensors Journal, 2016, 16, 3587-3596.	2.4	148
28	Multimodal characterisation of highâ€•Q piezoelectric microâ€tuning forks. IET Circuits, Devices and Systems, 2013, 7, 361-367.	0.9	3
29	Characterization of Metamaterial Transmission Lines with Coupled Resonators Through Parameter Extraction. , 2012, , .		1
30	Selective modal excitation in coupled piezoelectric microcantilevers. Microsystem Technologies, 2012, 18, 917-924.	1.2	10
31	Piezoelectric AlN-actuated micro-tuning forks for sensing applications. Proceedings of SPIE, 2011, , .	0.8	2
32	Tunable sub-wavelength resonators based on bariumâ€“strontiumâ€“titanate thick-film technology. IET Microwaves, Antennas and Propagation, 2011, 5, 316.	0.7	9
33	Piezoelectric micro-scale tuning fork resonators for sensing applications. , 2011, , .		8
34	Composite right-/left-handed coplanar waveguides loaded with split ring resonators and their application to high-pass filters. IET Microwaves, Antennas and Propagation, 2010, 4, 822.	0.7	12
35	Towards the automatic layout synthesis in resonant-type metamaterial transmission lines. IET Microwaves, Antennas and Propagation, 2010, 4, 1007.	0.7	11
36	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

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37	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
38	Automated synthesis of resonant-type metamaterial transmission lines using aggressive space mapping. , 2010, , .		2
39	Automated synthesis of resonant-type metamaterial transmission lines using aggressive space mapping. , 2010, , .		2
40	Microwave circuit miniaturization with complementary spiral resonators: Application to highâ€pass filters and dualâ€band components. Microwave and Optical Technology Letters, 2009, 51, 2741-2745.	0.9	12
41	Dispersion engineering with resonant-type metamaterial transmission lines. Laser and Photonics Reviews, 2009, 3, 12-29.	4.4	6
42	Low-pass and high-pass microwave filters with transmission zero based on metamaterial concepts. , 2009, , .		8
43	Electrically tunable split-ring resonators at microwave frequencies based on barium-strontium-titanate thick films. Electronics Letters, 2009, 45, 417.	0.5	39
44	SRR- and CSRR-based Metamaterial Transmission Lines: Modeling and Comparison. , 2009, , .		7
45	Size Reduction and Dispersion/Impedance Engineering with Resonant Type Metamaterial Transmission Lines: Current Status and Future Applications. , 2009, , .		0
46	Emitter discharge variability of subsurface drip irrigation in uniform soils: effect on water-application uniformity. Irrigation Science, 2008, 26, 451-458.	1.3	50
47	Applications of resonantâ€type metamaterial transmission lines to the design of enhanced bandwidth components with compact dimensions. Microwave and Optical Technology Letters, 2008, 50, 127-134.	0.9	50
48	Strategies for the miniaturization of metamaterial resonators. Microwave and Optical Technology Letters, 2008, 50, 1263-1270.	0.9	25
49	Parametric analysis of microstrip lines loaded with complementary split ring resonators. Microwave and Optical Technology Letters, 2008, 50, 2093-2096.	0.9	31
50	Metamaterial filters: A review. Metamaterials, 2008, 2, 186-197.	2.2	127
51	Modelling metamaterial transmission lines: a review and recent developments. Opto-electronics Review, 2008, 16, .	2.4	15
52	Characterization of miniaturized metamaterial resonators coupled to planar transmission lines through parameter extraction. Journal of Applied Physics, 2008, 104, 114501.	1.1	67
53	Ultra compact band pass filters implemented through complementary spiral resonators (CSRs). , 2008, , .		3
54	Revising the equivalent circuit models of resonant-type metamaterial transmission lines. , 2008, , .		14

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55	Application of Composite Right/Left Handed (CRLH) Transmission Lines based on Complementary Split Ring Resonators (CSRRs) to the Design of Dual-Band Microwave Components. IEEE Microwave and Wireless Components Letters, 2008, 18, 524-526.	2.0	84
56	Generalized Model for Multiband Metamaterial Transmission Lines. IEEE Microwave and Wireless Components Letters, 2008, 18, 728-730.	2.0	20
57	Synthesis and applications of new left handed microstrip lines with complementary split-ring resonators etched on the signal strip. IET Microwaves, Antennas and Propagation, 2008, 2, 324-330.	0.7	30
58	Engineering the electrical characteristics of resonant type metamaterial transmission lines. , 2008, , .		0
59	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
60	Metamaterial transmission lines based on broad-side coupled spiral resonators. Electronics Letters, 2007, 43, 530.	0.5	22
61	Miniaturisation of planar microwave circuits by using resonant-type left-handed transmission lines. IET Microwaves, Antennas and Propagation, 2007, 1, 73.	0.7	59
62	On the dispersion characteristics of metamaterial transmission lines. Journal of Applied Physics, 2007, 102, 074911.	1.1	6
63	Compact Rat-Race Hybrid Coupler Implemented Through Artificial Left Handed and Right Handed Lines. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	20
64	Application of metamaterial transmission lines to design of quadrature phase shifters. Electronics Letters, 2007, 43, 1098.	0.5	26
65	Broadband Resonant-Type Metamaterial Transmission Lines. IEEE Microwave and Wireless Components Letters, 2007, 17, 97-99.	2.0	92
66	Metamaterial filters with attenuation poles in the pass band for ultra wide band applications. Microwave and Optical Technology Letters, 2007, 49, 2909-2913.	0.9	16
67	Composite Right/Left-Handed Metamaterial Transmission Lines Based on Complementary Split-Rings Resonators and Their Applications to Very Wideband and Compact Filter Design. IEEE Transactions on Microwave Theory and Techniques, 2007, 55, 1296-1304.	2.9	152
68	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
69	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
70	Accurate circuit analysis of resonant-type left handed transmission lines with inter-resonator coupling. Journal of Applied Physics, 2006, 100, 074908.	1.1	26
71	Super Compact (<1cm2) Band Pass Filters with Wide Bandwidth and High Selectivity at C-band. , 2006, , .		9
72	Artificial Left-handed Transmission Lines for Small Size Microwave Components: Application to Power Dividers. , 2006, , .		11

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73	Limitations and Solutions of Resonant-Type Metamaterial Transmission Lines for Filter Applications: the Hybrid Approach. , 2006, , .		8
74	Applications of Right/Left Handed and Resonant Left Handed Transmission Lines for Microwave Circuit Design. , 2006, , .		9
75	On the electrical characteristics of complementary metamaterial resonators. IEEE Microwave and Wireless Components Letters, 2006, 16, 543-545.	2.0	218
76	Left-handed and right-handed transmission properties of microstrip lines loaded with complementary split rings resonators. Microwave and Optical Technology Letters, 2006, 48, 2508-2511.	0.9	18
77	Metamaterial transmission lines with extreme impedance values. Microwave and Optical Technology Letters, 2006, 48, 2499-2506.	0.9	14
78	On the transmission properties of left-handed microstrip lines implemented by complementary split rings resonators. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2006, 19, 87-103.	1.2	48
79	Modelling Complementary-Split-Rings-Resonator (CSRR) left-handed lines with inter-resonator's coupling. , 0, , .		2
80	Electrically Small Resonators for Metamaterial and Microwave Circuit Design. , 0, , .		4