

Juan Baena

List of Publications by Year in descending order

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times ranked

1917
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving homogeneity in abdominal imaging at 3 T with light, flexible, and compact metasurface. <i>Magnetic Resonance in Medicine</i> , 2022, 87, 496-508.	1.9	15
2	Self-complementary metasurfaces for designing terahertz deflecting circular-polarization beam splitters. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	22
3	Optimal angular stability of reflectionless metasurface absorbers. <i>Physical Review B</i> , 2021, 103, .	1.1	5
4	A Focusing Circular-Polarization THz Beam Splitter Based on a Self-Complementary Metasurface. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2021, 11, 165-174.	2.0	12
5	Babinet's principle and saturation of the resonance frequency of scaled-down complementary metasurfaces. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	3
6	Surface Waves on Self-Complementary Metasurfaces: All-Frequency Hyperbolicity, Extreme Canalization, and TE-TM Polarization Degeneracy. <i>Physical Review X</i> , 2021, 11, .	2.8	17
7	Extension of Babinet's principle for plasmonic metasurfaces. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	11
8	Comparison of angular-selective metasurfaces as tools for sub-THz single-frequency sensing. <i>Journal of Physics: Conference Series</i> , 2021, 2015, 012158.	0.3	1
9	Frequency-Controllable Polarization Rotation of THz Waves With an SCMS. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 1491-1502.	3.1	14
10	An artificial dielectric slab for ultra high-field MRI: Proof of concept. <i>Journal of Magnetic Resonance</i> , 2020, 320, 106835.	1.2	23
11	Artificial dielectric for 7T MRI. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	0
12	Broadband Uniaxial Dielectric-Magnetic Metamaterial with Giant Anisotropy Factor. , 2020, , .		2
13	Retrieval of the Constitutive Parameters and Dispersion Relation of Glide-Symmetric Metamaterials via the Multimodal Transfer Matrix Method. , 2020, , .		2
14	Self-complementary metasurfaces as efficient tools for polarization sensitive control of THz beams. , 2019, , .		3
15	Left-handed metamaterials matched to free space through mechanical tuning. , 2019, , .		3
16	Quasi-isotropic Huygens resonant scatterer in microwaves. , 2019, , .		1
17	Non-Linear High Permittivity Artificial Dielectric. , 2019, , .		0
18	Reflectionless perfect absorber with low angular and polarization sensitivity. , 2019, , .		0

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19	The Physics of Self-Complementary Metasurfaces Under Circularly Polarized Waves. , 2018, , .		0
20	Validity of homogenization for Artificial Plasmas: Straight Strips Versus Zigzag Strips. , 2018, , .		0
21	Broadband-Reflectionless Perfect Absorber Made of Planar Resonators. , 2018, , .		3
22	Huygensâ€™ metasurfaces covering from waveplates to perfect absorbers. , 2018, , .		0
23	Characterizing Metamaterial Resonators and Finite Metasurfaces by the Method of Moments. , 2018, , .		0
24	The Physics of Self-Complementary Metasurfaces. , 2018, , .		0
25	A linear-to-circular polarization converter with broadband transparency based on Huygensâ€™ metasurface. , 2018, , .		0
26	Self-complementary tessellations as universal design approach for LP-to-CP transforming frequency selective surfaces. , 2018, , .		1
27	Broadband Huygensâ€™ Metasurface Based on Hybrid Resonances. Physical Review Applied, 2018, 10, .	1.5	32
28	Broadband and Thin Linear-to-Circular Polarizers Based on Self-Complementary Zigzag Metasurfaces. IEEE Transactions on Antennas and Propagation, 2017, 65, 4124-4133.	3.1	98
29	Extremely thin Fabry-Perot resonators based on high permittivity artificial dielectric. , 2016, , .		4
30	Experimental characterization of microwave self-complimentary metasurfaces for linear-to-circular polarization transform. , 2016, , .		0
31	Broadband transparent metasurfaces for full phase shift and polarization control. , 2016, , .		3
32	Low plasma frequency zigzag metamaterials. , 2016, , .		1
33	Self-complementary metasurfaces for linear-to-circular polarization conversion. Physical Review B, 2015, 92, .	1.1	84
34	Self-complementary zig-zag metasurfaces for designing circular polarizing beam splitters. , 2015, , .		1
35	Controlling the cross-polarization effects of metasurfaces from the lowest to the highest possible value. , 2015, , .		0
36	Resonating elements longer than the unit cell: A way to make very dense broadband left-handed metamaterials. , 2015, , .		0

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37	Duality for 3D metamaterial resonators?. , 2014, , .		1
38	Theoretical constraints on reflection and transmission through metasurfaces. , 2014, , .		0
39	Metasurfaces for angular filtering and beam scanning. , 2014, , .		3
40	Equivalent circuit model for thick split ring resonators and thick spiral resonators. , 2014, , .		2
41	Waveguide model for thick complementary split ring resonators. , 2014, , .		3
42	Linear to circular polarization converters based on self-complementary metasurfaces. , 2014, , .		3
43	A perfect lens for ballistic electrons: An electron-light wave analogy. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 9-15.	1.0	8
44	Self-Complementary Metasurface for Designing Narrow Band Pass/Stop Filters. IEEE Microwave and Wireless Components Letters, 2013, 23, 291-293.	2.0	62
45	Spatial Angular Filtering by FSSs Made of Chains of Interconnected SRRs and CSRRs. IEEE Microwave and Wireless Components Letters, 2013, 23, 477-479.	2.0	30
46	A general method to retrieve electromagnetic polarizability tensors of metamaterial resonators. , 2013, , .		5
47	Extremely thin infrared absorbers made of metallo-dielectric core-shell nanospheres. , 2013, , .		0
48	The duality relation for 2d complementary optical nanocircuits. , 2013, , .		0
49	Thickness effects on the resonance of metasurfaces made of SRRs and C-SRRs. , 2013, , .		6
50	Metasurfaces made of transmission lines: A way to spatial filtering. , 2013, , .		3
51	Experimental demonstration of the saturation and weakening of the resonant response of the SRR and the CSRR. , 2013, , .		1
52	A band-pass/stop filter made of SRRs and C-SRRs. , 2011, , .		7
53	Bulk Metamaterials Made of Resonant Rings. Proceedings of the IEEE, 2011, 99, 1660-1668.	16.4	27
54	Metamaterial-inspired perfect tunnelling in semiconductor heterostructures. New Journal of Physics, 2011, 13, 083011.	1.2	21

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55	On the Lorentz's homogenization method applied to metamaterials presenting strong spatial dispersion. , 2010, , .		0
56	Nonlocal homogenization of an array of cubic particles made of resonant rings. <i>Metamaterials</i> , 2009, 3, 115-128.	2.2	24
57	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
58	Miniaturization and Characterization of Metamaterial Resonant Particles. , 2008, , .		4
59	Periodic arrangements of chiral scatterers providing negative refractive index bi-isotropic media. <i>Physical Review B</i> , 2008, 77, .	1.1	38
60	Unified homogenization theory for magnetoinductive and electromagnetic waves in split-ring metamaterials. <i>Physical Review A</i> , 2008, 78, .	1.0	70
61	Towards a systematic design of isotropic bulk magnetic metamaterials using the cubic point groups of symmetry. <i>Physical Review B</i> , 2007, 76, .	1.1	72
62	Isotropic frequency selective surfaces made of cubic resonators. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	44
63	Theory of three-dimensional subdiffraction imaging. <i>Applied Physics Letters</i> , 2006, 89, 211113.	1.5	16
64	Resonance and Cross-Polarization Effects in Conventional and Complementary Split Ring Resonator Periodic Screens. <i>Electromagnetics</i> , 2006, 26, 247-260.	0.3	28
65	Novel microstrip backward coupler with metamaterial cells for fully planar fabrication techniques. <i>Microwave and Optical Technology Letters</i> , 2006, 48, 1205-1209.	0.9	19
66	Direct Polarizability Extraction Method. , 2006, , .		7
67	Electrically small isotropic three-dimensional magnetic resonators for metamaterial design. <i>Applied Physics Letters</i> , 2006, 88, 134108.	1.5	50
68	Electroinductive waves in chains of complementary metamaterial elements. <i>Applied Physics Letters</i> , 2006, 88, 083503.	1.5	77
69	Reducing losses and dispersion effects in multilayer metamaterial tunnelling devices. <i>New Journal of Physics</i> , 2005, 7, 166-166.	1.2	19
70	Complementary split-ring resonator for compact waveguide filter design. <i>Microwave and Optical Technology Letters</i> , 2005, 46, 88-92.	0.9	32
71	Application of complementary split-ring resonators to the design of compact narrow band-pass structures in microstrip technology. <i>Microwave and Optical Technology Letters</i> , 2005, 46, 508-512.	0.9	64
72	On the resonances and polarizabilities of split ring resonators. <i>Journal of Applied Physics</i> , 2005, 98, 033103.	1.1	120

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73	Ab initio analysis of frequency selective surfaces based on conventional and complementary split ring resonators. <i>Journal of Optics</i> , 2005, 7, S38-S43.	1.5	51
74	Three-dimensional superresolution in metamaterial slab lenses: Experiment and theory. <i>Physical Review B</i> , 2005, 72, .	1.1	62
75	Near-perfect tunneling and amplification of evanescent electromagnetic waves in a waveguide filled by a metamaterial: Theory and experiments. <i>Physical Review B</i> , 2005, 72, .	1.1	75
76	Artificial magnetic metamaterial design by using spiral resonators. <i>Physical Review B</i> , 2004, 69, .	1.1	367
77	Babinet Principle Applied to the Design of Metasurfaces and Metamaterials. <i>Physical Review Letters</i> , 2004, 93, 197401.	2.9	784
78	Stop-band and band-pass characteristics in coplanar waveguides coupled to spiral resonators. <i>Microwave and Optical Technology Letters</i> , 2004, 42, 386-388.	0.9	28