Daniel F Sievenpiper

List of Publications by Year
in descending order

83 papers	2,955 citations	201674 27 h-index	168389 53 g-index
85 all docs	85 docs citations	85 times ranked	1851 citing authors

#	Article	IF	Citations
1	Broadside Radiation From Chern Photonic Topological Insulators. IEEE Transactions on Antennas and Propagation, 2022, 70, 2358-2363.	5.1	9
2	Channel Characterization of Magnetic Human Body Communication. IEEE Transactions on Biomedical Engineering, 2022, 69, 569-579.	4.2	14
3	Advances in Metasurfaces: Topology, Chirality, Patterning, and Time Modulation. IEEE Antennas and Propagation Magazine, 2022, 64, 51-62.	1.4	2
4	Power-Dependent Metasurface With Self-Induced Bandgap. IEEE Antennas and Wireless Propagation Letters, 2022, 21, 1115-1119.	4.0	1
5	Metasurfaces for spin-control of surface waves. , 2022, , .		0
6	Designing Topological Defect Lines Protected by Gauge-Dependent Symmetry Indicators. Physical Review Applied, 2022, 17, .	3.8	6
7	A Scalable High-Power Microwave Source Based on Coherent Stimulated Emission. IEEE Transactions on Antennas and Propagation, 2021, 69, 7543-7550.	5.1	2
8	A Multifunction Dense Array System With Reconfigurable Depth of Penetration. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2021, 5, 35-45.	3.4	3
9	C-shaped chiral waveguide for spin-dependent unidirectional propagation. Applied Physics Letters, 2021, 118, 101104.	3.3	5
10	Classical-to-topological transmission line couplers. Applied Physics Letters, 2021, 118, .	3.3	16
11	Active Self-Tuning Metasurface With Enhanced Absorbing Frequency Range for Suppression of High-Power Surface Currents. IEEE Transactions on Antennas and Propagation, 2021, 69, 2759-2767.	5.1	9
12	Line Waves Existing at Junctions of Dual-Impedance Metasurfaces. ACS Photonics, 2021, 8, 2285-2293.	6.6	19
13	Photonic Topological Insulators: A Beginner's Introduction [Electromagnetic Perspectives]. IEEE Antennas and Propagation Magazine, 2021, 63, 112-124.	1.4	19
14	Topological antennas: Aperture radiators, leaky-wave surfaces, and orbital angular momentum beam generation. Journal of Applied Physics, 2021, 130, .	2.5	5
15	Shield pattern and scattering reduction scheme using impedance surfaces. Journal Physics D: Applied Physics, 2021, 54, 475108.	2.8	2
16	Direct Conversion of Static Voltage to a Steerable RF Radiation Beam Using an Active Metasurface. IEEE Transactions on Antennas and Propagation, 2020, 68, 1680-1688.	5.1	2
17	Analysis of Spatial and Frequency Proximity on Performance of Small Loop and Dipole Antennas. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 1266-1270.	4.0	0
18	Topological valley transport under long-range deformations. Physical Review Research, 2020, 2, .	3.6	29

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19	Efficient Transition from a Traditional Planar Transmission Line to a Topological Line Wave. , 2020, , .		1
20	Electromagneticâ€Đual Metasurfaces for Topological States along a 1D Interface. Laser and Photonics Reviews, 2019, 13, 1900126.	8.7	57
21	Simulation of electric fields generated from microtubule vibrations. Physical Review E, 2019, 100, 022410.	2.1	12
22	Topological Metasurfaces for Robust One-dimensional Waves. , 2019, , .		0
23	Intuitive Broadband Matching Technique for Top-Loaded Monopole Antennas. IEEE Transactions on Antennas and Propagation, 2019, 67, 7611-7616.	5.1	3
24	Rainbow Trapping with Long Oscillation Lifetimes in Gradient Magnetoinductive Metasurfaces. Physical Review Applied, 2019, 12, .	3.8	21
25	A Simulation Technique for Radiation Properties of Time-Varying Media Based on Frequency-Domain Solvers. IEEE Access, 2019, 7, 112375-112383.	4.2	7
26	Waveform Selective Surfaces. Advanced Functional Materials, 2019, 29, 1806386.	14.9	53
27	Method for Extracting the Effective Tensor Surface Impedance Function From Nonuniform, Anisotropic, Conductive Patterns. IEEE Transactions on Antennas and Propagation, 2019, 67, 3171-3177.	5.1	18
28	Adiabatic Mode-Matching Techniques for Coupling Between Conventional Microwave Transmission Lines and One-Dimensional Impedance-Interface Waveguides. Physical Review Applied, 2019, 11, .	3.8	24
29	Analytic theory of an edge mode between impedance surfaces. Physical Review A, 2019, 99, .	2.5	29
30	L-shaped Metasurface for Chiral Surface Waves Propagation. , 2019, , .		1
31	Topological metasurfaces for symmetry-protected electromagnetic line waves. , 2019, , .		2
32	The Observation of Dispersionless Superluminal Propagation in a Non-Foster Loaded Waveguide and Its Fundamental Limitations. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 762-773.	4.6	5
33	Limits of Near-Field Directivity for a Wire Array. IEEE Magnetics Letters, 2018, 9, 1-4.	1.1	4
34	Simulation Analysis of Electromagnetic Surface Wave Suppression by Soft Surfaces, Including Effects of Resistive and Active Elements. IEEE Antennas and Wireless Propagation Letters, 2018, 17, 2394-2398.	4.0	2
35	Multiwavelength Multiplexing Hologram Designed Using Impedance Metasurfaces. IEEE Transactions on Antennas and Propagation, 2018, 66, 6408-6413.	5.1	47
36	Manipulating line waves in flat graphene for agile terahertz applications. Nanophotonics, 2018, 7, 893-903.	6.0	24

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37	Metasurfaces and their applications. Nanophotonics, 2018, 7, 989-1011.	6.0	342
38	High-Power Transistor-Based Tunable and Switchable Metasurface Absorber. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 2810-2818.	4.6	96
39	Guiding Waves Along an Infinitesimal Line between Impedance Surfaces. Physical Review Letters, 2017, 119, 106802.	7.8	67
40	Surface-Wave Coupling and Antenna Properties in Two Dimensions. IEEE Transactions on Antennas and Propagation, 2017, 65, 5052-5060.	5.1	28
41	Nonlinear, Active, and Tunable Metasurfaces for Advanced Electromagnetics Applications. IEEE Access, 2017, 5, 27439-27452.	4.2	60
42	Reconfigurable impedance ground plane for broadband antenna systems. , 2017, , .		2
43	Periodic structures for scalable high-power microwave transmitters. , 2017, , .		0
44	Waveform-selective scattering control through circuit-based metasurfaces at the same frequency. , 2017, , .		2
45	Responses of Waveform-Selective Absorbing Metasurfaces to Oblique Waves at the Same Frequency. Scientific Reports, 2016, 6, 31371.	3.3	14
46	Switchable nonlinear metasurfaces for absorbing high power surface waves. Applied Physics Letters, 2016, 108, .	3.3	53
47	Study of the electric field enhancement of high-impedance surfaces. , 2016, , .		3
48	An electrically tunable absorbing metasurface for surface waves and plane waves. , 2016, , .		13
49	Advances in nonlinear, active, and anisotropic artificial impedance surfaces. , 2016, , .		4
50	Low-Profile and Low-Dispersion Artificial Impedance Surface in the UHF Band Based on Non-Foster Circuit Loading. IEEE Transactions on Antennas and Propagation, 2016, 64, 3003-3010.	5.1	24
51	A Simplified Low-${Q}$ Electrically Small Magnetic Dipole Antenna. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1975-1978.	4.0	9
52	Surface Waveguides Supporting Both TM Mode and TE Mode With the Same Phase Velocity. IEEE Transactions on Antennas and Propagation, 2016, 64, 3811-3819.	5.1	36
53	Patterning Technique for Generating Arbitrary Anisotropic Impedance Surfaces. IEEE Transactions on Antennas and Propagation, 2016, 64, 4725-4732.	5.1	22
54	Gain and Noise Analysis of Non-Foster Matched Antennas. IEEE Transactions on Antennas and Propagation, 2016, 64, 4993-5004.	5.1	29

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55	Photoemission-based microelectronic devices. Nature Communications, 2016, 7, 13399.	12.8	49
56	Polarization-Insensitive Holographic Surfaces With Broadside Radiation. IEEE Transactions on Antennas and Propagation, 2016, 64, 5272-5280.	5.1	54
57	Dispersion-reduced high impedance surface loaded with non-Foster impedances. , 2015, , .		4
58	Synthesis and Design of Programmable Subwavelength Coil Array for Near-Field Manipulation. IEEE Transactions on Microwave Theory and Techniques, 2015, 63, 2971-2982.	4.6	16
59	Nonscattering Waveguides Based on Tensor Impedance Surfaces. IEEE Transactions on Antennas and Propagation, 2015, 63, 1746-1755.	5.1	39
60	Flexible Patch Antennas Using Patterned Metal Sheets on Silicone. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 1354-1357.	4.0	27
61	Nonlinear Power-Dependent Impedance Surface. IEEE Transactions on Antennas and Propagation, 2015, 63, 1736-1745.	5.1	44
62	Waveform Selectivity at the Same Frequency. Scientific Reports, 2015, 5, 9639.	3.3	43
63	Nonlinear effects of non-Foster matching networks. , 2015, , .		3
64	Neurotransmitter Specific, Cellular-Resolution Functional Brain Mapping Using Receptor Coated Nanoparticles: Assessment of the Possibility. PLoS ONE, 2015, 10, e0145852.	2.5	2
65	Non-Foster Loaded Parasitic Array for Broadband Steerable Patterns. IEEE Transactions on Antennas and Propagation, 2014, 62, 6081-6090.	5.1	32
66	Broadband Fast-Wave Propagation in a Non-Foster Circuit Loaded Waveguide. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 789-798.	4.6	42
67	Surface Wave Scattering Reduction Using Beam Shifters. IEEE Antennas and Wireless Propagation Letters, 2014, 13, 963-966.	4.0	33
68	Programmable Screen for Patterning Magnetic Fields. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 481-490.	4.6	13
69	Nonâ€dispersive tunable reflection phase shifter based on nonâ€Foster circuits. Electronics Letters, 2014, 50, 1616-1618.	1.0	13
70	Noise in non-Foster antenna matching circuits. , 2013, , .		6
71	Artificial Tensor Impedance Surface Waveguides. IEEE Transactions on Antennas and Propagation, 2013, 61, 3597-3606.	5.1	105
72	Circuit-based nonlinear metasurface absorbers for high power surface currents. Applied Physics Letters, 2013, 102, .	3.3	63

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73	Waveform-Dependent Absorbing Metasurfaces. Physical Review Letters, 2013, 111, 245501.	7.8	138
74	Nonlinear metamaterial surfaces for absorption of high power microwave surface currents. , 2013, , .		0
75	Electronically steerable antenna using superluminal waveguide and tunable negative capacitors. , 2012, , .		6
76	Anisotropic surface impedance cloak. , 2012, , .		15
77	Broadband non-Foster matching of an electrically small loop antenna. , 2012, , .		20
78	Experimental Validation of Performance Limits and Design Guidelines for Small Antennas. IEEE Transactions on Antennas and Propagation, 2012, 60, 8-19.	5.1	208
79	Impedance surface waveguide theory and simulation. , 2011, , .		6
80	Superluminal Waveguides Based on Non-Foster Circuits for Broadband Leaky-Wave Antennas. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 231-234.	4.0	60
81	Nonlinear Grounded Metasurfaces for Suppression of High-Power Pulsed RF Currents. IEEE Antennas and Wireless Propagation Letters, 2011, 10, 1516-1519.	4.0	46
82	Simulation of anisotropic artificial impedance surface with rectangular and diamond lattices. , 2011, , .		9
83	Scalar and Tensor Holographic Artificial Impedance Surfaces. IEEE Transactions on Antennas and Propagation, 2010, 58, 3212-3221.	5.1	602