Nathan D Orloff

List of Publications by Year
in descending order

58 papers	1,224 citations	394421 19 h-index	377865 34 g-index
59 all docs	59 docs citations	59 times ranked	1976 citing authors

#	Article	IF	Citations
1	Collector Series-Resistor to Stabilize a Broadband 400 GHz Common-Base Amplifier. IEEE Transactions on Terahertz Science and Technology, 2022, 12, 63-69.	3.1	5
2	Special topic on materials and devices for 5G electronics. Applied Physics Letters, 2022, 120, .	3.3	7
3	Broadband, High-Frequency Permittivity Characterization for Epitaxial <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Ba</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^'</mml:mo><mml:mi>x</mml:mi></mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math> Composition-Spread Thin Films. Physical Review Applied, 2021, 15, .	3.8	2
4	The Effect of Annealing Thin Film Parylene C-Platinum Interfaces Characterized by Broadband Dielectric Spectroscopy. , 2021, , .		3
5	Electro-optically derived millimeter-wave sources with phase and amplitude control. Applied Physics Letters, 2021, 119, 151106.	3.3	3
6	High-Gain 500-GHz InP HBT Power Amplifiers. , 2021, , .		2
7	Targeted chemical pressure yields tuneable millimetre-wave dielectric. Nature Materials, 2020, 19, 176-181.	27.5	27
8	Optimal Series Resistors for On-Wafer Calibrations. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 196-210.	4.6	5
9	Microwave Measurements for Conductive Anisotropic Materials. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 4913-4924.	4.6	2
10	Materials Characterization With Multiple Offset Reflects at Frequencies to 110 GHz. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 184-195.	4.6	5
11	Measurements of Nonlinear Polarization Dynamics in the Tens of Gigahertz. Physical Review Applied, 2020, 13, .	3.8	1
12	Measuring ion-pairing and hydration in variable charge supramolecular cages with microwave microfluidics. Communications Chemistry, 2019, 2, .	4.5	12
13	Carbon nanotube thin film patch antennas for wireless communications. Applied Physics Letters, 2019, 114, .	3.3	29
14	Measurement of Ion-Pairing Interactions in Buffer Solutions With Microwave Microfluidics. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2019, 3, 184-190.	3.4	4
15	Label-free detection of conformational changes in switchable DNA nanostructures with microwave microfluidics. Nature Communications, 2019, 10, 1174.	12.8	33
16	Three Planar Devices for Extracting Capacitance per Unit Length. , 2019, , .		1
17	Impedance tuning with photoconductors to 40 GHz. IET Optoelectronics, 2019, 13, 177-182.	3.3	2
18	A Multistate Single-Connection Calibration for Microwave Microfluidics. IEEE Transactions on Microwave Theory and Techniques, 2018, 66, 1099-1107.	4.6	24

#	Article	IF	Citations
19	Frequency- and Electric Field-Dependent Physical Model of Ferroelectric Materials in the Tens of GHz. , 2018, , .		0
20	Determining Carbon Fiber Composite Loading with Flip-Chip Measurements to 110 GHz. , 2018, , .		0
21	Subâ€Nanosecond Tuning of Microwave Resonators Fabricated on Ruddlesdenâ€“Popper Dielectric Thin Films. Advanced Materials Technologies, 2018, 3, 1800090.	5.8	2
22	A Multireflect-Thru Method of Vector Network Analyzer Calibration. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 905-915.	4.6	26
23	Three-Port Frequency-Selective Absorptive Limiter. IEEE Microwave and Wireless Components Letters, 2017, 27, 479-481.	3.2	10
24	High efficiency carbon nanotube thread antennas. Applied Physics Letters, 2017, 111, .	3.3	29
25	Hybrid Characterization of Nanolitre Dielectric Fluids in a Single Microfluidic Channel Up to 110 GHz. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 5063-5073.	4.6	29
26	Modeling electrical double-layer effects for microfluidic impedance spectroscopy from 100 kHz to 110 GHz. Lab on A Chip, 2017, 17, 2674-2681.	6.0	24
27	How to extract distributed circuit parameters from the scattering parameters of a transmission line. , 2017, , .		3
28	Qualitative multidimensional calibration comparison. , 2017, , .		0
29	Trade-off between the Mechanical Strength and Microwave Electrical Properties of Functionalized and Irradiated Carbon Nanotube Sheets. ACS Applied Materials & Interfaces, 2016, 8, 9327-9334.	8.0	12
30	New Methods for Series-Resistor Calibrations on Substrates With Losses Up to 110 GHz. IEEE Transactions on Microwave Theory and Techniques, 2016, 64, 4287-4297.	4.6	11
31	Multiscale metrologies for process optimization of carbon nanotube polymer composites. Carbon, 2016, 108, 381-393.	10.3	24
32	Giant Surface Conductivity Enhancement in a Carbon Nanotube Composite by Ultraviolet Light Exposure. ACS Applied Materials & Interfaces, 2016, 8, 23230-23235.	8.0	13
33	Cure temperature influences composite electrical properties by carbon nanotube-rich domain formation. Composites Science and Technology, 2016, 133, 23-32.	7.8	9
34	Lightweight, Flexible, High-Performance Carbon Nanotube Cables Made by Scalable Flow Coating. ACS Applied Materials & Interfaces, 2016, 8, 4903-4910.	8.0	38
35	Noncontact conductivity and dielectric measurement for high throughput roll-to-roll nanomanufacturing. Scientific Reports, 2015, 5, 17019.	3.3	13
36	Influence of the central mode and soft phonon on the microwave dielectric loss near the strain-induced ferroelectric phase transitions in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mrow><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mi>n</mml:mi></mml:msub></mml:mrow><mml:mrow><mml:mo>+</mml:mo><mml:mn>1</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">T</mml:mi><mml:msub><mml:mi mathvariant="normal">i</mml:mi><mml:mi>Physic	3.2	10

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37	Integrated bioprinting and imaging for scalable, networkable desktop experimentation. RSC Advances, 2014, 4, 34721-34728.	3.6	13
38	Dielectric Characterization by Microwave Cavity Perturbation Corrected for Nonuniform Fields. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 2149-2159.	4.6	43
39	Exploiting dimensionality and defect mitigation to create tunable microwave dielectrics. Nature, 2013, 502, 532-536.	27.8	204
40	Electro-thermo-mechanical model for bulk acoustic wave resonators. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 2389-2403.	3.0	35
41	A Large-Signal Model of Ferroelectric Thin-Film Transmission Lines. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 3059-3067.	4.6	2
42	Superconducting Multiplexer Filter Bank for a Frequency-Selective Power Limiter. IEEE Transactions on Applied Superconductivity, 2011, 21, 542-546.	1.7	4
43	Modeling of Self-Heating Mechanism in the Design of Superconducting Limiters. IEEE Transactions on Applied Superconductivity, 2011, 21, 547-550.	1.7	1
44	Passive Intermodulation Due to Self-Heating in Printed Transmission Lines. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 311-322.	4.6	45
45	A Compact Variable-Temperature Broadband Series-Resistor Calibration. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 188-195.	4.6	35
46	First-Order Elastic Nonlinearities of Bulk Acoustic Wave Resonators. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 1206-1213.	4.6	13
47	Manipulating particle trajectories with phase-control in surface acoustic wave microfluidics. Biomicrofluidics, 2011, 5, 44107-441079.	2.4	48
48	Quantitative Permittivity Measurements of Nanoliter Liquid Volumes in Microfluidic Channels to 40 GHz. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 3279-3288.	4.7	140
49	Temperature-dependent dielectric relaxation in bismuth zinc niobate thin films. Applied Physics Letters, 2010, 97, 022902.	3.3	11
50	Broadband Dielectric Spectroscopy of Bovine Serum Albumin and Insulin Solutions in Nanoliter Volumes. Biophysical Journal, 2010, 98, 193a.	0.5	0
51	Third-order intermodulation distortion due to self-heating in gold coplanar waveguides. , 2010, , .		1
52	Third-Order Intermodulation Distortion and Harmonic Generation in Mismatched Weakly Nonlinear Transmission Lines. IEEE Transactions on Microwave Theory and Techniques, 2009, 57, 10-18.	4.6	17
53	Measurement of the Microwave Nonlinear Response of Combined Ferroelectric-Superconductor Transmission Lines. IEEE Transactions on Applied Superconductivity, 2009, 19, 940-943.	1.7	2
54	Broadband permittivity measurements of thin-film ferroelectrics to 40 GHz. , 2008, , .		0

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55	Nonlinear effects in thin-film ferroelectric transmission lines at microwave frequencies. , 2008, , .		0
56	Broadband Characterization of Multilayer Dielectric Thin-Films. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	12
57	Broadband Permittivity of Liquids Extracted from Transmission Line Measurements of Microfluidic Channels. IEEE MTT-S International Microwave Symposium Digest IEEE MTT-S International Microwave Symposium, 2007, , .	0.0	23
58	Superconducting metamaterials. Applied Physics Letters, 2005, 87, 034102.	3.3	155