

Peter G Steeneken

List of Publications by Year in descending order

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107
papers

2,858
citations

201674

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214800

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114
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114
docs citations

114
times ranked

3012
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Sensing of Chlorophyll(in) With Dual-Spectrum Si LEDs in SOI-CMOS Technology. IEEE Sensors Journal, 2022, 22, 11280-11289.	4.7	3
2	Spiderweb Nanomechanical Resonators via Bayesian Optimization: Inspired by Nature and Guided by Machine Learning. Advanced Materials, 2022, 34, e2106248.	21.0	31
3	Self-Sealing Complex Oxide Resonators. Nano Letters, 2022, 22, 1475-1482.	9.1	10
4	Tunable Strong Coupling of Mechanical Resonance between Spatially Separated FePS ₃ Nanodrums. Nano Letters, 2022, 22, 36-42.	9.1	13
5	Probing nanomotion of single bacteria with graphene drums. Nature Nanotechnology, 2022, 17, 637-642.	31.5	30
6	Sensitive Transfer-Free Wafer-Scale Graphene Microphones. ACS Applied Materials & Interfaces, 2022, 14, 21705-21712.	8.0	18
7	Photonic and Optomechanical Thermometry. Optics, 2022, 3, 159-176.	1.2	2
8	Direct Wafer-Scale CVD Graphene Growth under Platinum Thin-Films. Materials, 2022, 15, 3723.	2.9	3
9	Nanomechanical probing and strain tuning of the Curie temperature in suspended Cr ₂ Ge ₂ Te ₆ -based heterostructures. Npj 2D Materials and Applications, 2022, 6, .	7.9	21
10	Mechanical dissipation by substrateâ€“mode coupling in SiN resonators. Applied Physics Letters, 2022, 121, .	3.3	11
11	Tuning nonlinear damping in graphene nanoresonators by parametricâ€“direct internal resonance. Nature Communications, 2021, 12, 1099.	12.8	49
12	Study of charge density waves in suspended 2H-TaS ₂ and 2H-TaSe ₂ by nanomechanical resonance. Applied Physics Letters, 2021, 118, .	3.3	14
13	Multi-layer graphene pirani pressure sensors. Nanotechnology, 2021, 32, 335501.	2.6	12
14	Controlling the anisotropy of a van der Waals antiferromagnet with light. Science Advances, 2021, 7, .	10.3	59
15	Squeeze-Film Effect on Atomically Thin Resonators in the High-Pressure Limit. Nano Letters, 2021, 21, 7617-7624.	9.1	5
16	Dynamics of 2D material membranes. 2D Materials, 2021, 8, 042001.	4.4	41
17	Diamagnetically levitating resonant weighing scale. Sensors and Actuators A: Physical, 2021, 330, 112842.	4.1	4
18	Semi-permeability of graphene nanodrums in sucrose solution. 2D Materials, 2021, 8, 015031.	4.4	3

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19	Chemical Design and Magnetic Ordering in Thin Layers of 2D Metal-Organic Frameworks (MOFs). Journal of the American Chemical Society, 2021, 143, 18502-18510.	13.7	22
20	Nonlinear elasticity of wrinkled atomically thin membranes. Journal of Applied Physics, 2021, 130, .	2.5	1
21	Ultrathin complex oxide nanomechanical resonators. Communications Physics, 2020, 3, .	5.3	24
22	Method to Determine the Closed-Loop Precision of Resonant Sensors From Open-Loop Measurements. IEEE Sensors Journal, 2020, 20, 14262-14272.	4.7	5
23	High-frequency gas effusion through nanopores in suspended graphene. Nature Communications, 2020, 11, 6025.	12.8	21
24	Sensitive capacitive pressure sensors based on graphene membrane arrays. Microsystems and Nanoengineering, 2020, 6, 102.	7.0	44
25	Rigid body dynamics of diamagnetically levitating graphite resonators. Applied Physics Letters, 2020, 116, 243505.	3.3	15
26	Magnetic and electronic phase transitions probed by nanomechanical resonators. Nature Communications, 2020, 11, 2698.	12.8	69
27	Phonon scattering at kinks in suspended graphene. Physical Review B, 2020, 101, .	3.2	5
28	Nonequilibrium thermodynamics of acoustic phonons in suspended graphene. Physical Review Research, 2020, 2, .	3.6	13
29	Nanoelectromechanical Sensors Based on Suspended 2D Materials. Research, 2020, 2020, 8748602.	5.7	93
30	Optical absorption sensing with dual-spectrum silicon LEDs in SOI-CMOS technology. , 2020, , .		1
31	Highly Anisotropic Mechanical and Optical Properties of 2D Layered As ₂ S ₃ Membranes. ACS Nano, 2019, 13, 10845-10851.	14.6	60
32	Sealing Graphene Nanodrums. Nano Letters, 2019, 19, 5313-5318.	9.1	41
33	Mass measurement of graphene using quartz crystal microbalances. Applied Physics Letters, 2019, 115, .	3.3	10
34	High-Frequency Stochastic Switching of Graphene Resonators Near Room Temperature. Nano Letters, 2019, 19, 1282-1288.	9.1	39
35	Nonlinear dynamic identification of graphene's elastic modulus via reduced order modeling of atomistic simulations. Journal of the Mechanics and Physics of Solids, 2019, 122, 161-176.	4.8	17
36	Inkjet-Printed High-Q Nanocrystalline Diamond Resonators. Small, 2019, 15, e1803774.	10.0	29

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37	On-chip Heaters for Tension Tuning of Graphene Nanodrums. Nano Letters, 2018, 18, 2852-2858.	9.1	27
38	Graphene mechanical pixels for Interferometric Modulator Displays. Nature Communications, 2018, 9, 4837.	12.8	16
39	A Miniaturized Low Power Pirani Pressure Sensor Based on Suspended Graphene. , 2018, , .		14
40	Graphene gas pumps. , 2018, , .		3
41	Graphene gas pumps. 2D Materials, 2018, 5, 031009.	4.4	15
42	Size- and temperature-dependent bending rigidity of graphene using modal analysis. Carbon, 2018, 139, 334-341.	10.3	42
43	Opto-thermally excited multimode parametric resonance in graphene membranes. Scientific Reports, 2018, 8, 9366.	3.3	42
44	Isorecticular two-dimensional magnetic coordination polymers prepared through pre-synthetic ligand functionalization. Nature Chemistry, 2018, 10, 1001-1007.	13.6	94
45	Transient thermal characterization of suspended monolayer MoS_2 . Physical Review Materials, 2018, 2, .		
46	Direct and parametric synchronization of a graphene self-oscillator. Applied Physics Letters, 2017, 110, .	3.3	18
47	The Avalanche-Mode Superjunction LED. IEEE Transactions on Electron Devices, 2017, 64, 1612-1618.	3.0	20
48	Very large scale characterization of graphene mechanical devices using a colorimetry technique. Nanoscale, 2017, 9, 7559-7564.	5.6	14
49	Nonlinear dynamic characterization of two-dimensional materials. Nature Communications, 2017, 8, 1253.	12.8	96
50	Optomechanics for thermal characterization of suspended graphene. Physical Review B, 2017, 96, .	3.2	38
51	Suspended graphene beams with tunable gap for squeeze-film pressure sensing. , 2017, , .		9
52	Static Capacitive Pressure Sensing Using a Single Graphene Drum. ACS Applied Materials & Interfaces, 2017, 9, 43205-43210.	8.0	47
53	Graphene gas osmometers. 2D Materials, 2017, 4, 011002.	4.4	23
54	Amplitude calibration of 2D mechanical resonators by nonlinear optical transduction. Applied Physics Letters, 2017, 111, 253104.	3.3	14

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55	Experimental characterization of graphene by electrostatic resonance frequency tuning. Journal of Applied Physics, 2017, 122, 234302.	2.5	20
56	Low power wide spectrum optical transmitter using avalanche mode LEDs in SOI CMOS technology. Optics Express, 2017, 25, 16981.	3.4	11
57	Colorimetry Technique for Scalable Characterization of Suspended Graphene. Nano Letters, 2016, 16, 6792-6796.	9.1	23
58	Visualizing the Motion of Graphene Nanodrums. Nano Letters, 2016, 16, 2768-2773.	9.1	74
59	Graphene Squeeze-Film Pressure Sensors. Nano Letters, 2016, 16, 568-571.	9.1	143
60	High-quality-factor tantalum oxide nanomechanical resonators by laser oxidation of TaSe ₂ . Nano Research, 2015, 8, 2842-2849.	10.4	27
61	Electric Field and Interface Charge Extraction in Field-Plate Assisted RESURF Devices. IEEE Transactions on Electron Devices, 2015, 62, 622-629.	3.0	7
62	Physics-based stability analysis of MOS transistors. Solid-State Electronics, 2015, 113, 28-34.	1.4	0
63	MEMS oscillating squeeze-film pressure sensor with optoelectronic feedback. Journal of Micromechanics and Microengineering, 2015, 25, 045011.	2.6	17
64	Ideal RESURF Geometries. IEEE Transactions on Electron Devices, 2015, 62, 3341-3347.	3.0	10
65	The boost transistor: A field plate controlled LDMOST. , 2015, , .		7
66	Accelerated resistance degradation in aluminum by pulsed power cycling. , 2015, , .		5
67	Identifying failure mechanisms in LDMOS transistors by analytical stability analysis. , 2014, , .		2
68	Impact of Interface Charge on the Electrostatics of Field-Plate Assisted RESURF Devices. IEEE Transactions on Electron Devices, 2014, 61, 2859-2866.	3.0	4
69	Comparison of electrical techniques for temperature evaluation in power MOS transistors. , 2013, , .		6
70	The safe operating volume as a general measure for the operating limits of LDMOS transistors. , 2013, , .		2
71	Integrated heat sinks for SOI power devices. , 2013, , .		0
72	Voltage-à€Controlled Surface Wrinkling of Elastomeric Coatings. Advanced Materials, 2013, 25, 3438-3442.	21.0	46

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73	Design optimization of field-plate assisted RESURF devices. , 2013, , .		11
74	Fast RF-CV Characterization Through High-Speed 1-port S-Parameter Measurements. IEEE Transactions on Semiconductor Manufacturing, 2012, 25, 310-316.	1.7	8
75	Performance limits of MEMS switches for power electronics. , 2012, , .		2
76	Small, low-ohmic RF MEMS switches with thin-film package. , 2011, , .		14
77	Piezoresistive heat engine and refrigerator. Nature Physics, 2011, 7, 354-359.	16.7	144
78	Amplitude saturation of MEMS resonators explained by autoparametric resonance. Journal of Micromechanics and Microengineering, 2010, 20, 105012.	2.6	42
79	Fast RF-CV characterization through high-speed 1-port S-parameter measurements. , 2010, , .		2
80	Path Following and Numerical Continuation Methods for Non-Linear MEMS and NEMS. NATO Science for Peace and Security Series B: Physics and Biophysics, 2010, , 129-140.	0.3	0
81	Numerical Path Following as an Analysis Method for Electrostatic MEMS. Journal of Microelectromechanical Systems, 2009, 18, 488-499.	2.5	11
82	2.0â€“2.7â€“GHz programmable bandpass filter with RF-MEMS capacitance matrices. Electronics Letters, 2009, 45, 738.	1.0	5
83	Kelvin probe study of laterally inhomogeneous dielectric charging and charge diffusion in RF MEMS capacitive switches. , 2008, , .		35
84	Identifying degradation mechanisms in RF MEMS capacitive switches. Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS), 2008, , .	0.0	15
85	Center-Shift Method for the Characterization of Dielectric Charging in RF MEMS Capacitive Switches. IEEE Transactions on Semiconductor Manufacturing, 2008, 21, 148-153.	1.7	33
86	Narrow Bandwidth Single-Resonator MEMS Tuning Fork Filter. Frequency Control Symposium and Exhibition, Proceedings of the IEEE International, 2007, , .	0.0	11
87	A low SAR, five-band MEMS switched PIFA for mobile phones. , 2007, , .		0
88	A Five-Band Reconfigurable PIFA for Mobile Phones. IEEE Transactions on Antennas and Propagation, 2007, 55, 3300-3309.	5.1	82
89	Time and voltage dependence of dielectric charging in RF MEMS capacitive switches. , 2007, , .		33
90	Characterization of dielectric charging in RF MEMS capacitive switches. , 2006, , .		49

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91	A 10MHz piezoresistive MEMS resonator with high Q. , 2006, , .		36
92	Microelectromechanical tunable capacitors for reconfigurable RF architectures. Journal of Micromechanics and Microengineering, 2006, 16, 601-611.	2.6	36
93	MEMS-Based Reconfigurable Multi-band BiCMOS Power Amplifier. , 2006, , .		8
94	MEMS-based MCM VCO for space applications. , 2006, , .		2
95	Empirical and theoretical characterisation of electrostatically driven MEMS structures with stress gradients. Sensors and Actuators A: Physical, 2005, 123-124, 555-562.	4.1	9
96	Dynamics and squeeze film gas damping of a capacitive RF MEMS switch. Journal of Micromechanics and Microengineering, 2005, 15, 176-184.	2.6	73
97	Crossing the Gap from p- to n-Type Doping: Nature of the States near the Chemical Potential in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ and $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_4$. Physical Review Letters, 2003, 90, 247005.	7.8	29
98	Electrons, holes, and spin in $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_4$. Physical Review B, 2003, 67, .	3.2	8
99	High-Q integrated RF passives and RF-MEMS on silicon. Materials Research Society Symposia Proceedings, 2003, 783, 311.	0.1	18
100	Exchange Splitting and Charge Carrier Spin Polarization in EuO. Physical Review Letters, 2002, 88, 047201.	7.8	206
101	Probing the singlet character of the two-hole states in cuprate superconductors. Physica B: Condensed Matter, 2002, 312-313, 34-35.	2.7	6
102	Theoretical description of the Fano-effect in the angle-integrated valence-band photoemission of paramagnetic solids. Applied Physics A: Materials Science and Processing, 2001, 73, 663-666.	2.3	1
103	Photoemission and x-ray-absorption study of misfit-layered (Bi,Pb)-Sr-Co-O compounds: Electronic structure of a hole-doped Co-O triangular lattice. Physical Review B, 2001, 64, .	3.2	86
104	Weight of zero-loss electrons and sum rules in extrinsic processes that can influence photoemission spectra. Physical Review B, 2001, 63, .	3.2	9
105	Work function changes in the double layered manganite $\text{La}_{1.2}\text{Sr}_{1.8}\text{Mn}_2\text{O}_7$. Physical Review B, 2001, 64, .	3.2	9
106	RF MEMS tunable capacitors with large tuning ratio. , 0, , .		33
107	A Test Structure for Young Modulus Extraction Through Capacitance-Voltage Measurements. , 0, , .		0