

# Peter G Steeneken

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100  
papers

1,840  
citations

23  
h-index

39  
g-index

114  
ext. papers

2,350  
ext. citations

7.3  
avg, IF

4.86  
L-index

#	Paper	IF	Citations
100	Photonic and Optomechanical Thermometry. <i>Optics</i> , <b>2022</b> , 3, 159-176	1.1	1
99	Direct Wafer-Scale CVD Graphene Growth under Platinum Thin-Films. <i>Materials</i> , <b>2022</b> , 15, 3723	3.5	0
98	Nanomechanical probing and strain tuning of the Curie temperature in suspended Cr <sub>2</sub> Ge <sub>2</sub> Te <sub>6</sub> -based heterostructures. <i>Npj 2D Materials and Applications</i> , <b>2022</b> , 6,	8.8	2
97	Nonlinear elasticity of wrinkled atomically thin membranes. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 184302.5	2.5	0
96	Spiderweb Nanomechanical Resonators via Bayesian Optimization: Inspired by Nature and Guided by Machine Learning. <i>Advanced Materials</i> , <b>2021</b> , 34, e2106248	24	5
95	Chemical Design and Magnetic Ordering in Thin Layers of 2D Metal-Organic Frameworks (MOFs). <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 18502-18510	16.4	4
94	Semi-permeability of graphene nanodrums in sucrose solution. <i>2D Materials</i> , <b>2021</b> , 8, 015031	5.9	2
93	Study of charge density waves in suspended 2H-TaS <sub>2</sub> and 2H-TaSe <sub>2</sub> by nanomechanical resonance. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 193105	3.4	2
92	Multi-layer graphene pirani pressure sensors. <i>Nanotechnology</i> , <b>2021</b> , 32,	3.4	2
91	Controlling the anisotropy of a van der Waals antiferromagnet with light. <i>Science Advances</i> , <b>2021</b> , 7,	14.3	13
90	Optical sensing of chlorophyll(in) with dual-spectrum Si LEDs in SOI-CMOS technology. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1	4	1
89	Tuning nonlinear damping in graphene nanoresonators by parametric-direct internal resonance. <i>Nature Communications</i> , <b>2021</b> , 12, 1099	17.4	13
88	Squeeze-Film Effect on Atomically Thin Resonators in the High-Pressure Limit. <i>Nano Letters</i> , <b>2021</b> , 21, 7617-7624	11.5	0
87	Dynamics of 2D material membranes. <i>2D Materials</i> , <b>2021</b> , 8, 042001	5.9	5
86	Diamagnetically levitating resonant weighing scale. <i>Sensors and Actuators A: Physical</i> , <b>2021</b> , 330, 112842.3.9	3.9	2
85	Magnetic and electronic phase transitions probed by nanomechanical resonators. <i>Nature Communications</i> , <b>2020</b> , 11, 2698	17.4	33
84	Phonon scattering at kinks in suspended graphene. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	3

83	Optical absorption sensing with dual-spectrum silicon LEDs in SOI-CMOS technology <b>2020</b> ,		1
82	Nonequilibrium thermodynamics of acoustic phonons in suspended graphene. <i>Physical Review Research</i> , <b>2020</b> , 2,	3.9	6
81	Nanoelectromechanical Sensors Based on Suspended 2D Materials. <i>Research</i> , <b>2020</b> , 2020, 8748602	7.8	39
80	Ultrathin complex oxide nanomechanical resonators. <i>Communications Physics</i> , <b>2020</b> , 3,	5.4	12
79	Method to Determine the Closed-Loop Precision of Resonant Sensors From Open-Loop Measurements. <i>IEEE Sensors Journal</i> , <b>2020</b> , 20, 14262-14272	4	1
78	High-frequency gas effusion through nanopores in suspended graphene. <i>Nature Communications</i> , <b>2020</b> , 11, 6025	17.4	12
77	Sensitive capacitive pressure sensors based on graphene membrane arrays. <i>Microsystems and Nanoengineering</i> , <b>2020</b> , 6, 102	7.7	13
76	Rigid body dynamics of diamagnetically levitating graphite resonators. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 243505	3.4	6
75	Mass measurement of graphene using quartz crystal microbalances. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 053102	3.4	4
74	High-Frequency Stochastic Switching of Graphene Resonators Near Room Temperature. <i>Nano Letters</i> , <b>2019</b> , 19, 1282-1288	11.5	24
73	Highly Anisotropic Mechanical and Optical Properties of 2D Layered AsS Membranes. <i>ACS Nano</i> , <b>2019</b> , 13, 10845-10851	16.7	34
72	Sealing Graphene Nanodrums. <i>Nano Letters</i> , <b>2019</b> , 19, 5313-5318	11.5	18
71	Nonlinear dynamic identification of graphene's elastic modulus via reduced order modeling of atomistic simulations. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2019</b> , 122, 161-176	5	11
70	Inkjet-Printed High-Q Nanocrystalline Diamond Resonators. <i>Small</i> , <b>2019</b> , 15, e1803774	11	22
69	On-chip Heaters for Tension Tuning of Graphene Nanodrums. <i>Nano Letters</i> , <b>2018</b> , 18, 2852-2858	11.5	13
68	Opto-thermally excited multimode parametric resonance in graphene membranes. <i>Scientific Reports</i> , <b>2018</b> , 8, 9366	4.9	23
67	Isorecticular two-dimensional magnetic coordination polymers prepared through pre-synthetic ligand functionalization. <i>Nature Chemistry</i> , <b>2018</b> , 10, 1001-1007	17.6	70
66	Transient thermal characterization of suspended monolayer MoS <sub>2</sub> . <i>Physical Review Materials</i> , <b>2018</b> , 2,	3.2	9

65	Graphene mechanical pixels for Interferometric Modulator Displays. <i>Nature Communications</i> , <b>2018</b> , 9, 4837	17.4	12
64	A Miniaturized Low Power Pirani Pressure Sensor Based on Suspended Graphene <b>2018</b> ,		8
63	Graphene gas pumps <b>2018</b> ,		2
62	Graphene gas pumps. <i>2D Materials</i> , <b>2018</b> , 5, 031009	5.9	13
61	Size- and temperature-dependent bending rigidity of graphene using modal analysis. <i>Carbon</i> , <b>2018</b> , 139, 334-341	10.4	27
60	Direct and parametric synchronization of a graphene self-oscillator. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 073103	3.4	13
59	The Avalanche-Mode Superjunction LED. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 1612-1618	2.9	13
58	Very large scale characterization of graphene mechanical devices using a colorimetry technique. <i>Nanoscale</i> , <b>2017</b> , 9, 7559-7564	7.7	11
57	Nonlinear dynamic characterization of two-dimensional materials. <i>Nature Communications</i> , <b>2017</b> , 8, 12531	7.4	70
56	Optomechanics for thermal characterization of suspended graphene. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	20
55	Suspended graphene beams with tunable gap for squeeze-film pressure sensing <b>2017</b> ,		7
54	Static Capacitive Pressure Sensing Using a Single Graphene Drum. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 43205-43210	9.5	28
53	Graphene gas osmometers. <i>2D Materials</i> , <b>2017</b> , 4, 011002	5.9	20
52	Amplitude calibration of 2D mechanical resonators by nonlinear optical transduction. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 253104	3.4	11
51	Experimental characterization of graphene by electrostatic resonance frequency tuning. <i>Journal of Applied Physics</i> , <b>2017</b> , 122, 234302	2.5	16
50	Low power wide spectrum optical transmitter using avalanche mode LEDs in SOI CMOS technology. <i>Optics Express</i> , <b>2017</b> , 25, 16981-16995	3.3	8
49	Visualizing the Motion of Graphene Nanodrums. <i>Nano Letters</i> , <b>2016</b> , 16, 2768-73	11.5	51
48	Graphene Squeeze-Film Pressure Sensors. <i>Nano Letters</i> , <b>2016</b> , 16, 568-71	11.5	96

47	Colorimetry Technique for Scalable Characterization of Suspended Graphene. <i>Nano Letters</i> , <b>2016</b> , 16, 6792-6796	11.5	19
46	Physics-based stability analysis of MOS transistors. <i>Solid-State Electronics</i> , <b>2015</b> , 113, 28-34	1.7	
45	MEMS oscillating squeeze-film pressure sensor with optoelectronic feedback. <i>Journal of Micromechanics and Microengineering</i> , <b>2015</b> , 25, 045011	2	15
44	Ideal RESURF Geometries. <i>IEEE Transactions on Electron Devices</i> , <b>2015</b> , 62, 3341-3347	2.9	10
43	The boost transistor: A field plate controlled LDMOST <b>2015</b> ,		3
42	Accelerated resistance degradation in aluminum by pulsed power cycling <b>2015</b> ,		2
41	High-quality-factor tantalum oxide nanomechanical resonators by laser oxidation of TaSe <sub>2</sub> . <i>Nano Research</i> , <b>2015</b> , 8, 2842-2849	10	24
40	Electric Field and Interface Charge Extraction in Field-Plate Assisted RESURF Devices. <i>IEEE Transactions on Electron Devices</i> , <b>2015</b> , 62, 622-629	2.9	5
39	Impact of Interface Charge on the Electrostatics of Field-Plate Assisted RESURF Devices. <i>IEEE Transactions on Electron Devices</i> , <b>2014</b> , 61, 2859-2866	2.9	4
38	Identifying failure mechanisms in LDMOS transistors by analytical stability analysis <b>2014</b> ,		1
37	Comparison of electrical techniques for temperature evaluation in power MOS transistors <b>2013</b> ,		5
36	The safe operating volume as a general measure for the operating limits of LDMOS transistors <b>2013</b> ,		2
35	Voltage-controlled surface wrinkling of elastomeric coatings. <i>Advanced Materials</i> , <b>2013</b> , 25, 3438-42	24	41
34	Design optimization of field-plate assisted RESURF devices <b>2013</b> ,		8
33	Fast RF-CV Characterization Through High-Speed 1-port S-Parameter Measurements. <i>IEEE Transactions on Semiconductor Manufacturing</i> , <b>2012</b> , 25, 310-316	2.6	6
32	<b>2012</b> ,		2
31	Small, low-ohmic RF MEMS switches with thin-film package <b>2011</b> ,		9
30	Piezoresistive heat engine and refrigerator. <i>Nature Physics</i> , <b>2011</b> , 7, 354-359	16.2	110

29	Amplitude saturation of MEMS resonators explained by autoparametric resonance. <i>Journal of Micromechanics and Microengineering</i> , <b>2010</b> , 20, 105012	2	33
28	Fast RF-CV characterization through high-speed 1-port S-parameter measurements <b>2010</b> ,		2
27	Path Following and Numerical Continuation Methods for Non-Linear MEMS and NEMS. <i>NATO Science for Peace and Security Series B: Physics and Biophysics</i> , <b>2010</b> , 129-140	0.2	
26	Numerical Path Following as an Analysis Method for Electrostatic MEMS. <i>Journal of Microelectromechanical Systems</i> , <b>2009</b> , 18, 488-499	2.5	11
25	2.0-7 GHz programmable bandpass filter with RF-MEMS capacitance matrices. <i>Electronics Letters</i> , <b>2009</b> , 45, 738	1.1	5
24	Kelvin probe study of laterally inhomogeneous dielectric charging and charge diffusion in RF MEMS capacitive switches <b>2008</b> ,		23
23	Identifying degradation mechanisms in RF MEMS capacitive switches. <i>Proceedings of the IEEE International Conference on Micro Electro Mechanical Systems (MEMS)</i> , <b>2008</b> ,		12
22	Center-Shift Method for the Characterization of Dielectric Charging in RF MEMS Capacitive Switches. <i>IEEE Transactions on Semiconductor Manufacturing</i> , <b>2008</b> , 21, 148-153	2.6	26
21	Narrow Bandwidth Single-Resonator MEMS Tuning Fork Filter. <i>Frequency Control Symposium and Exhibition, Proceedings of the IEEE International</i> , <b>2007</b> ,		6
20	A Five-Band Reconfigurable PIFA for Mobile Phones. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2007</b> , 55, 3300-3309	4.9	62
19	Time and voltage dependence of dielectric charging in RF MEMS capacitive switches <b>2007</b> ,		23
18	MEMS-based MCM VCO for space applications <b>2006</b> ,		2
17	Characterization of dielectric charging in RF MEMS capacitive switches <b>2006</b> ,		33
16	A 10MHz piezoresistive MEMS resonator with high Q <b>2006</b> ,		21
15	Microelectromechanical tunable capacitors for reconfigurable RF architectures. <i>Journal of Micromechanics and Microengineering</i> , <b>2006</b> , 16, 601-611	2	33
14	MEMS-Based Reconfigurable Multi-band BiCMOS Power Amplifier <b>2006</b> ,		5
13	Dynamics and squeeze film gas damping of a capacitive RF MEMS switch. <i>Journal of Micromechanics and Microengineering</i> , <b>2005</b> , 15, 176-184	2	60
12	Empirical and theoretical characterisation of electrostatically driven MEMS structures with stress gradients. <i>Sensors and Actuators A: Physical</i> , <b>2005</b> , 123-124, 555-562	3.9	8

11	High-Q integrated RF passives and RF-MEMS on silicon. <i>Materials Research Society Symposia Proceedings</i> , <b>2003</b> , 783, 311		11
10	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 $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_{4-\delta}$ . <i>Physical Review Letters</i> , <b>2003</b> , 90, 247005	7.4	29
9	Electrons, holes, and spin in $\text{Nd}_{2-x}\text{Ce}_x\text{CuO}_4$ . <i>Physical Review B</i> , <b>2003</b> , 67,	3.3	6
8	Probing the singlet character of the two-hole states in cuprate superconductors. <i>Physica B: Condensed Matter</i> , <b>2002</b> , 312-313, 34-35	2.8	6
7	Exchange splitting and charge carrier spin polarization in EuO. <i>Physical Review Letters</i> , <b>2002</b> , 88, 047201	7.4	193
6	Theoretical description of the Fano-effect in the angle-integrated valence-band photoemission of paramagnetic solids. <i>Applied Physics A: Materials Science and Processing</i> , <b>2001</b> , 73, 663-666	2.6	1
5	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. <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	83
4	Weight of zero-loss electrons and sum rules in extrinsic processes that can influence photoemission spectra. <i>Physical Review B</i> , <b>2001</b> , 63,	3.3	9
3	Work function changes in the double layered manganite $\text{La}_{1.2}\text{Sr}_{1.8}\text{Mn}_2\text{O}_7$ . <i>Physical Review B</i> , <b>2001</b> , 64,	3.3	9
2	RF MEMS tunable capacitors with large tuning ratio		20
1	Probing nanomotion of single bacteria with graphene drums		1