

# Douglas J Paul

## List of Publications by Citations

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208  
papers

3,903  
citations

31  
h-index

55  
g-index

294  
ext. papers

4,672  
ext. citations

3.8  
avg, IF

5.53  
L-index

#	Paper	IF	Citations
208	Si/SiGe heterostructures: from material and physics to devices and circuits. <i>Semiconductor Science and Technology</i> , <b>2004</b> , 19, R75-R108	1.8	424
207	Design and fabrication of memory devices based on nanoscale polyoxometalate clusters. <i>Nature</i> , <b>2014</b> , 515, 545-9	50.4	243
206	Measurement of the Earth tides with a MEMS gravimeter. <i>Nature</i> , <b>2016</b> , 531, 614-7	50.4	153
205	Midinfrared Plasmon-Enhanced Spectroscopy with Germanium Antennas on Silicon Substrates. <i>Nano Letters</i> , <b>2015</b> , 15, 7225-31	11.5	129
204	Silicon-Germanium Strained Layer Materials in Microelectronics. <i>Advanced Materials</i> , <b>1999</b> , 11, 191-204	24	114
203	Intersubband electroluminescence from Si/SiGe cascade emitters at terahertz frequencies. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 1543-1545	3.4	102
202	Ge-on-Si Single-Photon Avalanche Diode Detectors: Design, Modeling, Fabrication, and Characterization at Wavelengths 1310 and 1550 nm. <i>IEEE Transactions on Electron Devices</i> , <b>2013</b> , 60, 3807-3813 <sup>2,9,71</sup>	2.9	71
201	Facile Surfactant-Free Synthesis of p-Type SnSe Nanoplates with Exceptional Thermoelectric Power Factors. <i>Angewandte Chemie - International Edition</i> , <b>2016</b> , 55, 6433-7	16.4	71
200	Ohmic contacts to n-type germanium with low specific contact resistivity. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 022113	3.4	70
199	High-performance nMOSFETs using a novel strained Si/SiGe CMOS architecture. <i>IEEE Transactions on Electron Devices</i> , <b>2003</b> , 50, 1961-1969	2.9	70
198	Silicon germanium heterostructures in electronics: the present and the future. <i>Thin Solid Films</i> , <b>1998</b> , 321, 172-180	2.2	66
197	8-band k.p modeling of the quantum confined Stark effect in Ge quantum wells on Si substrates. <i>Physical Review B</i> , <b>2008</b> , 77,	3.3	65
196	High performance planar germanium-on-silicon single-photon avalanche diode detectors. <i>Nature Communications</i> , <b>2019</b> , 10, 1086	17.4	61
195	Silicon as a model ion trap: Time domain measurements of donor Rydberg states. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2008</b> , 105, 10649-10653	11.5	61
194	The progress towards terahertz quantum cascade lasers on silicon substrates. <i>Laser and Photonics Reviews</i> , <b>2010</b> , 4, 610-632	8.3	60
193	Interwell intersubband electroluminescence from Si/SiGe quantum cascade emitters. <i>Applied Physics Letters</i> , <b>2003</b> , 83, 4092-4094	3.4	60
192	Tunability of the dielectric function of heavily doped germanium thin films for mid-infrared plasmonics. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	57

191	Nanofabrication of high aspect ratio (~50:1) sub-10 nm silicon nanowires using inductively coupled plasma etching. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2012</b> , 30, 06FF02	1.3	55
190	The thermoelectric properties of Ge/SiGe modulation doped superlattices. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 233704	2.5	52
189	Mid-infrared emissivity of crystalline silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2018</b> , 174, 607-615	6.4	50
188	Chlorine-Enabled Electron Doping in Solution-Synthesized SnSe Thermoelectric Nanomaterials. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1602328	21.8	48
187	Roadmap for the next-generation of hybrid photovoltaic-thermal solar energy collectors. <i>Solar Energy</i> , <b>2018</b> , 174, 386-398	6.8	45
186	High performance Si/Si/sub 1-x/Ge resonant tunneling diodes. <i>IEEE Electron Device Letters</i> , <b>2001</b> , 22, 182-184	4.4	42
185	Optical Activation of Germanium Plasmonic Antennas in the Mid-Infrared. <i>Physical Review Letters</i> , <b>2016</b> , 117, 047401	7.4	40
184	The cross-plane thermoelectric properties of p-Ge/Si <sub>0.5</sub> Ge <sub>0.5</sub> superlattices. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 143507	3.4	39
183	Physics and Applications of Terahertz Radiation. <i>Springer Series in Optical Sciences</i> , <b>2014</b> ,	0.5	36
182	ITO and AZO films for low emissivity coatings in hybrid photovoltaic-thermal applications. <i>Solar Energy</i> , <b>2017</b> , 155, 82-92	6.8	36
181	A study of the impact of dislocations on the thermoelectric properties of quantum wells in the Si/SiGe materials system. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 114508	2.5	36
180	Picosecond intersubband dynamics in p-Si/SiGe quantum-well emitter structures. <i>Applied Physics Letters</i> , <b>2002</b> , 80, 1456-1458	3.4	34
179	Si/SiGe electron resonant tunneling diodes. <i>Applied Physics Letters</i> , <b>2000</b> , 77, 1653-1655	3.4	34
178	High-mobility two-dimensional electron gases in Si/SiGe heterostructures on relaxed SiGe layers grown at high temperature. <i>Semiconductor Science and Technology</i> , <b>1997</b> , 12, 943-946	1.8	33
177	The scaled performance of Si/Si/sub 1-x/Ge resonant tunneling diodes. <i>IEEE Electron Device Letters</i> , <b>2001</b> , 22, 582-584	4.4	31
176	Coulomb blockade in silicon based structures at temperatures up to 50 K. <i>Applied Physics Letters</i> , <b>1993</b> , 63, 631-632	3.4	31
175	Interwell relaxation times in p-Si/SiGe asymmetric quantum well structures: Role of interface roughness. <i>Physical Review B</i> , <b>2007</b> , 75,	3.3	29
174	Analysis of Ge micro-cavities with in-plane tensile strains above 2. <i>Optics Express</i> , <b>2016</b> , 24, 4365-4374	3.3	27

173	Two-dimensional electron gas mobility as a function of virtual substrate quality in strained Si/SiGe heterojunctions. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1998</b> , 16, 1634		27
172	Toward Silicon-Based Lasers for Terahertz Sources. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2006</b> , 12, 1570-1578	3.8	26
171	Study of single- and dual-channel designs for high-performance strained-Si-SiGe n-MOSFETs. <i>IEEE Transactions on Electron Devices</i> , <b>2004</b> , 51, 1245-1253	2.9	26
170	Mid-infrared light emission > 3 $\mu\text{m}$ wavelength from tensile strained GeSn microdisks. <i>Optics Express</i> , <b>2017</b> , 25, 25374-25385	3.3	25
169	Silicon photonics: a bright future?. <i>Electronics Letters</i> , <b>2009</b> , 45, 582	1.1	25
168	Electrical properties of two-dimensional electron gases grown on cleaned SiGe virtual substrates. <i>Thin Solid Films</i> , <b>1998</b> , 321, 181-185	2.2	25
167	One dimensional transport in silicon nanowire junction-less field effect transistors. <i>Scientific Reports</i> , <b>2017</b> , 7, 3004	4.9	24
166	Room temperature operation of n-type Ge/SiGe terahertz quantum cascade lasers predicted by non-equilibrium Green's functions. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 111102	3.4	24
165	Topotactic anion-exchange in thermoelectric nanostructured layered tin chalcogenides with reduced selenium content. <i>Chemical Science</i> , <b>2018</b> , 9, 3828-3836	9.4	24
164	Low loss Ge-on-Si waveguides operating in the 8-14 $\mu\text{m}$ atmospheric transmission window. <i>Optics Express</i> , <b>2018</b> , 26, 25667-25675	3.3	24
163	Plasmonic mid-infrared third harmonic generation in germanium nanoantennas. <i>Light: Science and Applications</i> , <b>2018</b> , 7, 106	16.7	23
162	Optical properties of highly n-doped germanium obtained by in situ doping and laser annealing. <i>Journal Physics D: Applied Physics</i> , <b>2017</b> , 50, 465103	3	22
161	Intersubband lifetimes in pSiSiGe terahertz quantum cascade heterostructures. <i>Physical Review B</i> , <b>2005</b> , 71,	3.3	22
160	Silicon germanium makes its mark. <i>Physics World</i> , <b>2000</b> , 13, 27-32	0.5	22
159	Extending the emission wavelength of Ge nanopillars to 2.25 $\mu\text{m}$ using silicon nitride stressors. <i>Optics Express</i> , <b>2015</b> , 23, 18193-202	3.3	21
158	Benchmarking the Use of Heavily Doped Ge for Plasmonics and Sensing in the Mid-Infrared. <i>ACS Photonics</i> , <b>2018</b> , 5, 3601-3607	6.3	21
157	Determining the electronic performance limitations in top-down-fabricated Si nanowires with mean widths down to 4 nm. <i>Nano Letters</i> , <b>2014</b> , 14, 6056-60	11.5	21
156	Ge/SiGe superlattices for thermoelectric energy conversion devices. <i>Journal of Materials Science</i> , <b>2013</b> , 48, 2829-2835	4.3	21

155	Determination of complex refractive index of thin metal films from terahertz time-domain spectroscopy. <i>Journal of Applied Physics</i> , <b>2008</b> , 104, 053110	2.5	21
154	Low temperature characterization of modulation doped SiGe grown on bonded silicon-on-insulator. <i>Applied Physics Letters</i> , <b>1996</b> , 69, 2704-2706	3.4	21
153	Si-based electroluminescence at THz frequencies. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2002</b> , 89, 10-12	3.1	20
152	Temperature dependence of terahertz optical transitions from boron and phosphorus dopant impurities in silicon. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 101114	3.4	20
151	3D LIDAR imaging using Ge-on-Si single-photon avalanche diode detectors. <i>Optics Express</i> , <b>2020</b> , 28, 13361-134420	3.3	20
150	Group-IV midinfrared plasmonics. <i>Journal of Nanophotonics</i> , <b>2015</b> , 9, 093789	1.1	19
149	Ge/SiGe quantum confined Stark effect electro-absorption modulation with low voltage swing at $\lambda = 1550$ nm. <i>Optics Express</i> , <b>2014</b> , 22, 19284-92	3.3	19
148	Si/SiGe quantum cascade superlattice designs for terahertz emission. <i>Journal of Applied Physics</i> , <b>2010</b> , 107, 053109	2.5	19
147	Thin SiGe virtual substrates for Ge heterostructures integration on silicon. <i>Journal of Applied Physics</i> , <b>2014</b> , 115, 093502	2.5	18
146	Relative importance of the electron interaction strength and disorder in the two-dimensional metallic state. <i>Physical Review B</i> , <b>2002</b> , 66,	3.3	18
145	Prospects for SiGe thermoelectric generators. <i>Solid-State Electronics</i> , <b>2014</b> , 98, 70-74	1.7	17
144	Field Tests of a Portable MEMS Gravimeter. <i>Sensors</i> , <b>2017</b> , 17,	3.8	17
143	1.55 $\mu$ m direct bandgap electroluminescence from strained n-Ge quantum wells grown on Si substrates. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 211101	3.4	17
142	A novel absorptive/reflective solar concentrator for heat and electricity generation: An optical and thermal analysis. <i>Energy Conversion and Management</i> , <b>2016</b> , 114, 142-153	10.6	16
141	Ge/SiGe superlattices for nanostructured thermoelectric modules. <i>Thin Solid Films</i> , <b>2013</b> , 543, 153-156	2.2	15
140	Silicon quantum integrated circuits: An attempt to fabricate silicon-based quantum devices using CMOS fabrication techniques. <i>Thin Solid Films</i> , <b>1998</b> , 336, 130-136	2.2	15
139	Si/SiGe quantum-cascade emitters for terahertz applications. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2003</b> , 16, 147-155	3	15
138	Control of Electron-State Coupling in Asymmetric Ge/SiGe Quantum Wells. <i>Physical Review Applied</i> , <b>2019</b> , 11,	4.3	15

137	Ba <sub>6</sub> Nd <sub>8+2x</sub> Ti <sub>18</sub> O <sub>54</sub> Tungsten Bronze: A New High-Temperature n-Type Oxide Thermoelectric. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 1894-1899	1.9	14
136	Multiphysics Simulations of a Thermoelectric Generator. <i>Energy Procedia</i> , <b>2015</b> , 75, 633-638	2.3	14
135	Mid-infrared intersubband absorption from p-Ge quantum wells grown on Si substrates. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 091114	3.4	13
134	Experimental and Simulation Study of Silicon Nanowire Transistors Using Heavily Doped Channels. <i>IEEE Nanotechnology Magazine</i> , <b>2017</b> , 16, 727-735	2.6	12
133	Interfacial sharpness and intermixing in a Ge-SiGe multiple quantum well structure. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 035703	2.5	12
132	SPICE Modeling of the Scaling of Resonant Tunneling Diodes and the Effects of Sidewall Leakage. <i>IEEE Transactions on Electron Devices</i> , <b>2012</b> , 59, 3555-3560	2.9	11
131	Low-Loss Surface-Mode Waveguides for Terahertz Si <sub>1-x</sub> BiGe Quantum Cascade Lasers. <i>IEEE Journal of Quantum Electronics</i> , <b>2006</b> , 42, 1233-1238	2	11
130	Schottky gating high mobility Si/Si <sub>1-x</sub> Ge x 2D electron systems. <i>Thin Solid Films</i> , <b>2000</b> , 369, 316-319	2.2	11
129	Cotunneling of holes in silicon-based structures. <i>Physical Review B</i> , <b>1994</b> , 49, 16514-16517	3.3	11
128	8-band k $\cdot$ p modelling of mid-infrared intersubband absorption in Ge quantum wells. <i>Journal of Applied Physics</i> , <b>2016</b> , 120, 043103	2.5	11
127	Ultra-broadband mid-infrared Ge-on-Si waveguide polarization rotator. <i>APL Photonics</i> , <b>2020</b> , 5, 026102	5.2	10
126	Ge/SiGe Superlattices for Thermoelectric Devices Grown by Low-Energy Plasma-Enhanced Chemical Vapor Deposition. <i>Journal of Electronic Materials</i> , <b>2013</b> , 42, 2030-2034	1.9	10
125	Si <sub>1-x</sub> Ge <sub>x</sub> pulsed plasma etching using CHF <sub>3</sub> and H <sub>2</sub> . <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1995</b> , 13, 2234		10
124	n-type Si/SiGe resonant tunnelling diodes. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2002</b> , 89, 26-29	3.1	9
123	Transverse Resistance overshoot in a Si/SiGe two-dimensional electron gas in the quantum Hall effect regime. <i>Europhysics Letters</i> , <b>2005</b> , 69, 997-1002	1.6	9
122	Si/SiGe electron resonant tunneling diodes with graded spacer wells. <i>Applied Physics Letters</i> , <b>2001</b> , 78, 4184-4186	3.4	9
121	Terahertz absorption-saturation and emission from electron-doped germanium quantum wells. <i>Optics Express</i> , <b>2020</b> , 28, 7245-7258	3.3	9
120	High sensitivity Ge-on-Si single-photon avalanche diode detectors. <i>Optics Letters</i> , <b>2020</b> , 45, 6406-6409	3	9

119	Thermal Conductivity Measurement Methods for SiGe Thermoelectric Materials. <i>Journal of Electronic Materials</i> , <b>2013</b> , 42, 2376-2380	1.9	8
118	Evidence for multiple impurity bands in sodium-doped silicon MOSFETs. <i>Physical Review B</i> , <b>2006</b> , 73, 1644-1648	3.3	8
117	Electrical properties and uniformity of two dimensional electron gases grown on cleaned SiGe virtual substrates. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1998</b> , 16, 1644		8
116	Design and simulation of losses in Ge/SiGe terahertz quantum cascade laser waveguides. <i>Optics Express</i> , <b>2020</b> , 28, 4786-4800	3.3	8
115	Sub-megahertz linewidth 780.24 nm distributed feedback laser for Rb applications. <i>Optics Letters</i> , <b>2020</b> , 45, 3529-3532	3	8
114	THz Bolometer Detectors. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 35-75	0.5	8
113	Facile Surfactant-Free Synthesis of p-Type SnSe Nanoplates with Exceptional Thermoelectric Power Factors. <i>Angewandte Chemie</i> , <b>2016</b> , 128, 6543-6547	3.6	8
112	Disentangling nonradiative recombination processes in Ge micro-crystals on Si substrates. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 262103	3.4	8
111	Coupled Simulation of Performance of a Crossed Compound Parabolic Concentrator with Solar Cell. <i>Energy Procedia</i> , <b>2015</b> , 75, 325-330	2.3	7
110	Impact of Randomly Distributed Dopants on $\Omega$ -Gate Junctionless Silicon Nanowire Transistors. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 1692-1698	2.9	7
109	A High Stability Optical Shadow Sensor With Applications for Precision Accelerometers. <i>IEEE Sensors Journal</i> , <b>2018</b> , 18, 4108-4116	4	7
108	Silver antimony Ohmic contacts to moderately doped n-type germanium. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 162101	3.4	7
107	SiBiGe n-type resonant tunneling diodes fabricated using in situ hydrogen cleaning. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 203501	3.4	7
106	Pump-probe measurement of lifetime engineering in SiGe quantum wells below the optical phonon energy. <i>Semiconductor Science and Technology</i> , <b>2005</b> , 20, L50-L52	1.8	7
105	SiGe quantum cascade structures for light emitting devices. <i>Journal of Crystal Growth</i> , <b>2005</b> , 278, 488-494	4.6	7
104	1.4 million Q factor SiN micro-ring resonator at 780 nm wavelength for chip-scale atomic systems. <i>Optics Express</i> , <b>2020</b> , 28, 4010-4020	3.3	7
103	Strain analysis of a Ge micro disk using precession electron diffraction. <i>Journal of Applied Physics</i> , <b>2019</b> , 126, 235701	2.5	7
102	The UK National Quantum Technologies Hub in sensors and metrology (Keynote Paper) <b>2016</b> ,		6

101	Fabrication of mid-infrared plasmonic antennas based on heavily doped germanium thin films. <i>Thin Solid Films</i> , <b>2016</b> , 602, 52-55	2.2	6
100	Thermal emissivity of silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , <b>2019</b> , 201, 110051	6.4	6
99	Beyond Moore's law. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2014</b> , 372, 20130376	3	6
98	Power Factor Characterization of Ge/SiGe Thermoelectric Superlattices at 300 K. <i>Journal of Electronic Materials</i> , <b>2013</b> , 42, 1449-1453	1.9	6
97	Principles and Applications of THz Time Domain Spectroscopy. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 203-231	0.5	6
96	A Review of Progress Towards Terahertz Si/SiGe Quantum Cascade Lasers. <i>IETE Journal of Research</i> , <b>2007</b> , 53, 285-292	0.9	6
95	Masking by weak localization of metallic behavior in a two-dimensional electron system in strong parallel magnetic fields. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	6
94	Microelectromechanical system gravimeters as a new tool for gravity imaging. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2018</b> , 376,	3	5
93	Multilayered Ge/SiGe Material in Microfabricated Thermoelectric Modules. <i>Journal of Electronic Materials</i> , <b>2014</b> , 43, 3838-3843	1.9	5
92	Gating high mobility silicon-germanium heterostructures. <i>Microelectronic Engineering</i> , <b>1997</b> , 35, 309-312	2.5	5
91	Activation mechanisms in sodium-doped silicon MOSFETs. <i>Journal of Physics Condensed Matter</i> , <b>2007</b> , 19, 226216	1.8	5
90	Longitudinal conductivity in Si/SiGe heterostructure at integer filling factors. <i>Physical Review B</i> , <b>2003</b> , 68,	3.3	5
89	Electron effective mass in ultrathin oxide silicon MOSFET inversion layers. <i>Semiconductor Science and Technology</i> , <b>2005</b> , 20, 664-667	1.8	5
88	Ge-on-Si waveguides for sensing in the molecular fingerprint regime. <i>Optics Express</i> , <b>2020</b> , 28, 5749-5757	3.3	5
87	Scalable solar thermoelectrics and photovoltaics (SUNTRAP) <b>2016</b> ,		5
86	A Portable MEMS Gravimeter for the Detection of the Earth Tides <b>2018</b> ,		5
85	Thermoelectric cross-plane properties on p- and n-Ge/Si <sub>1-x</sub> Ge <sub>1-x</sub> superlattices. <i>Thin Solid Films</i> , <b>2016</b> , 602, 90-94	2.2	4
84	Strained germanium nanostructures on silicon emitting at >2.2 μm wavelength <b>2013</b> ,		4



83	Low Specific Ohmic Contacts to n-type Germanium Using a Low Temperature NiGe Process. <i>ECS Transactions</i> , <b>2013</b> , 50, 1081-1084	1	4
82	Si/SiGe Bound-to-Continuum Quantum Cascade Emitters. <i>ECS Transactions</i> , <b>2009</b> , 16, 865-874	1	4
81	Low-temperature molecular beam epitaxy growth of Si/SiGe THz quantum cascade structures on virtual substrates. <i>Thin Solid Films</i> , <b>2006</b> , 508, 24-28	2.2	4
80	THz intersubband dynamics in p-Si/SiGe quantum well structures. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2002</b> , 13, 904-907	3	4
79	Electroluminescence from Si/SiGe quantum cascade emitters. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2003</b> , 16, 309-314	3	4
78	Optical cavities for Si/SiGe terahertz quantum cascade emitters. <i>Optical Materials</i> , <b>2005</b> , 27, 851-854	3.3	4
77	Si/Si <sub>1-x</sub> Ge <sub>x</sub> heterostructure field effect transistors fabricated using a low thermal budget CMOS process. <i>Microelectronic Engineering</i> , <b>2000</b> , 53, 209-212	2.5	4
76	Cyclotron resonance measurements of Si/SiGe two-dimensional electron gases with differing strain. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>1998</b> , 16, 1655		4
75	Fabrication of wires in silicon germanium material. <i>Microelectronic Engineering</i> , <b>1993</b> , 21, 349-352	2.5	4
74	Characterization of integrated waveguides by atomic-force-microscopy-assisted mid-infrared imaging and spectroscopy. <i>Optics Express</i> , <b>2020</b> , 28, 22186-22199	3.3	4
73	THz intersubband electroluminescence from n-type Ge/SiGe quantum cascade structures. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 101101	3.4	4
72	Expanding the Ge emission wavelength to 2.25 $\mu$ m with Si <sub>3</sub> N <sub>4</sub> strain engineering. <i>Thin Solid Films</i> , <b>2016</b> , 602, 60-63	2.2	3
71	(Invited) Germanium/Silicon Heterostructures for Terahertz Emission. <i>ECS Transactions</i> , <b>2013</b> , 50, 763-771		3
70	Investigations of electron-beam and optical induced damage in high mobility SiGe heterostructures. <i>Solid-State Electronics</i> , <b>1997</b> , 41, 1509-1513	1.7	3
69	Conductivity of weakly and strongly localized electrons in a n-type Si/SiGe heterostructure. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2004</b> , 1, 67-70		3
68	Si/SiGe n-type inverted modulation doping using ion implantation. <i>Thin Solid Films</i> , <b>2000</b> , 369, 324-327	2.2	3
67	Low loss germanium-on-silicon waveguides for integrated mid-infrared photonics <b>2019</b> ,		3
66	Integrated DFB Lasers on Si <sub>3</sub> N <sub>4</sub> Photonic Platform for Chip-Scale Atomic Systems <b>2019</b> ,		3

65	Ge-on-Si single-photon avalanche diode detectors for short-wave infrared wavelengths. <i>JPhys Photonics</i> , <b>2022</b> , 4, 012001	2.5	3
64	High-efficiency Ge-on-Si SPADs for short-wave infrared <b>2019</b> ,		3
63	Electron Population Dynamics in Optically Pumped Asymmetric Coupled Ge/SiGe Quantum Wells: Experiment and Models. <i>Photonics</i> , <b>2020</b> , 7, 2	2.2	3
62	Specially designed solar cells for hybrid photovoltaic-thermal generators <b>2016</b> ,		3
61	Silicon nitride waveguide polarization rotator and polarization beam splitter for chip-scale atomic systems. <i>APL Photonics</i> , <b>2022</b> , 7, 046101	5.2	3
60	Self-Assembly of Nanovoids in Si Microcrystals Epitaxially Grown on Deeply Patterned Substrates. <i>Crystal Growth and Design</i> , <b>2020</b> , 20, 2914-2920	3.5	2
59	Mid-infrared n-Ge on Si plasmonic based microbolometer sensors <b>2017</b> ,		2
58	n-Ge on Si for mid-infrared plasmonic sensors <b>2017</b> ,		2
57	Long Wavelength {greater than or equal to}1.9 $\mu$ m Germanium for Optoelectronics Using Process Induced Strain. <i>ECS Transactions</i> , <b>2013</b> , 50, 779-782	1	2
56	Fabrication of SiGe quantum devices by electron-beam induced damage. <i>Superlattices and Microstructures</i> , <b>1997</b> , 21, 29-36	2.8	2
55	Far-infrared cyclotron resonance study of the effect of strain and localisation in Si/SiGe two dimensional electron gases. <i>Solid-State Electronics</i> , <b>1998</b> , 42, 1159-1163	1.7	2
54	Magnetoconductivity of Hubbard bands induced in silicon MOSFETs. <i>Physica B: Condensed Matter</i> , <b>2007</b> , 400, 218-223	2.8	2
53	Doubling speed using strained Si/SiGe CMOS technology. <i>Thin Solid Films</i> , <b>2006</b> , 508, 338-341	2.2	2
52	Terahertz Emission From Silicon-Germanium Quantum Cascades <b>2003</b> , 367-382		2
51	Strained-Si n-MOS surface-channel and buried Si <sub>0.7</sub> Ge <sub>0.3</sub> compressively-strained p-MOS fabricated in a 0.25 $\mu$ m heterostructure CMOS process. <i>Materials Science in Semiconductor Processing</i> , <b>2005</b> , 8, 343-346	4.3	2
50	Electron effective mass enhancement in ultrathin gate-oxide Si-MOSFETs. <i>AIP Conference Proceedings</i> , <b>2005</b> ,	0	2
49	High efficiency planar geometry germanium-on-silicon single-photon avalanche diode detectors <b>2020</b> ,		2
48	Terahertz Plasma Field Effect Transistors. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 77-100	0.5	2

47	Germanium plasmonic nanoantennas for third-harmonic generation in the mid infrared <b>2016</b> ,		2
46	Geiger Mode Ge-on-Si Single-Photon Avalanche Diode Detectors <b>2019</b> ,		2
45	Quantum interference in silicon one-dimensional junctionless nanowire field-effect transistors. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	2
44	Finite Element Modelling To Evaluate the Cross-plane Thermal conductivity and Seebeck Coefficient of Ge/SiGe Heterostructure. <i>Materials Today: Proceedings</i> , <b>2015</b> , 2, 510-518	1.4	1
43	Variability study of high current junctionless silicon nanowire transistors <b>2017</b> ,		1
42	Improved Light Incoupling in Planar Solar Cells via Improved Texture Morphology of PDMS Scattering Layer <b>2017</b> ,		1
41	Quantum Well Photodetectors. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 3-34	0.5	1
40	Prospects for SiGe thermoelectric generators <b>2013</b> ,		1
39	Integrated germanium-on-silicon waveguides for mid-infrared photonic sensing chips <b>2017</b> ,		1
38	Modelling and experimental verification of a Ge/SiGe thermoelectric generator <b>2015</b> ,		1
37	Terahertz Frequency Security Systems and Terahertz Safety Considerations. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 233-255	0.5	1
36	Mid-infrared plasmonic germanium antennas on silicon <b>2014</b> ,		1
35	Mid-infrared plasmonic platform based on heavily doped epitaxial Ge-on-Si: Retrieving the optical constants of thin Ge epilayers <b>2014</b> ,		1
34	(Invited) The Thermoelectric Properties of Ge/SiGe Based Superlattices: from Materials to Energy Harvesting Modules. <i>ECS Transactions</i> , <b>2014</b> , 64, 929-937	1	1
33	SiGe/Si quantum cascade structures deposited by low-energy plasma-enhanced CVD <b>2008</b> ,		1
32	Si/SiGe bound-to-continuum quantum cascade terahertz emitters <b>2008</b> ,		1
31	Variation of the hopping exponent in disordered silicon MOSFETs. <i>Journal of Physics Condensed Matter</i> , <b>2008</b> , 20, 415226	1.8	1
30	Molecular beam epitaxy growth of Si/SiGe bound-to-continuum quantum cascade structures for THz emission. <i>Thin Solid Films</i> , <b>2008</b> , 517, 34-37	2.2	1

29	Strain-symmetrized Si/SiGe multi-quantum well structures grown by molecular beam epitaxy for intersubband engineering. <i>Journal of Luminescence</i> , <b>2006</b> , 121, 403-408	3.8	1
28	Investigation of the zero-field 2D metallic state with rS and kFl controlled independently. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2002</b> , 12, 616-619	3	1
27	The relative performance enhancement of strained-Si and buried channel p-MOS as a function of lithographic and effective gate lengths		1
26	Investigation of the injection velocity of holes in strained Si pMOSFETs. <i>Semiconductor Science and Technology</i> , <b>2005</b> , 20, L20-L22	1.8	1
25	Terahertz intersubband emission from silicon-germanium quantum cascades		1
24	Investigation of Si/SiGe heterostructure material using non-destructive optical techniques. <i>Thin Solid Films</i> , <b>2000</b> , 364, 75-79	2.2	1
23	Fingerprint mid-infrared sensing with germanium on silicon waveguides <b>2019</b> ,		1
22	Quantum Cascade Lasers. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 103-121	0.5	1
21	Relativistic Electrons-Based THz Sources: Principles of Operation and the ENEA Experience. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 123-148	0.5	1
20	Physics and Applications of T-Rays. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 149-175	0.5	1
19	Field-resolved detection of the temporal response of a single plasmonic antenna in the mid-infrared. <i>Optica</i> , <b>2021</b> , 8, 898	8.6	1
18	Mid-infrared plasmonic platform based on n-doped Ge-on-Si: Molecular sensing with germanium nano-antennas on Si <b>2016</b> ,		1
17	Geiger Mode Ge-on-Si Single-Photon Avalanche Diode Detectors <b>2019</b> ,		1
16	N-Type Ge/SiGe Quantum Cascade Heterostructures for THz Emission <b>2019</b> ,		1
15	Faceting of Si and Ge crystals grown on deeply patterned Si substrates in the kinetic regime: phase-field modelling and experiments. <i>Scientific Reports</i> , <b>2021</b> , 11, 18825	4.9	1
14	Structural and Compositional Properties of Strain-Symmetrized SiGe/Si Heterostructures. <i>Springer Proceedings in Physics</i> , <b>2008</b> , 269-272	0.2	1
13	Comparative Study of Annealed and High Temperature Grown ITO and AZO Films for Solar Energy Applications. <i>MRS Advances</i> , <b>2017</b> , 2, 3117-3122	0.7	0
12	Current leakage mechanisms related to threading dislocations in Ge-rich SiGe heterostructures grown on Si(001). <i>Applied Physics Letters</i> , <b>2021</b> , 119, 153504	3.4	0

11	Si/SiGe Thermoelectric Generators. <i>ECS Transactions</i> , <b>2013</b> , 50, 959-963	1
10	Electron beam induced damage of silicon germanium. <i>Microelectronic Engineering</i> , <b>1997</b> , 35, 59-62	2.5
9	Low-dimensional inverted Si/SiGe modulation-doped electron gases using selective ex-situ ion implantation. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2002</b> , 89, 111-115	3.1
8	THz intersubband dynamics in p-Si/SiGe quantum well emitter structures. <i>Physica Status Solidi (B): Basic Research</i> , <b>2003</b> , 237, 381-385	1.3
7	Growth and structural characterisation of Si/SiGe heterostructures for optoelectronic applications. <i>Optical Materials</i> , <b>2005</b> , 27, 855-858	3.3
6	Inverted modulation-doped n-type Si/Si <sub>0.77</sub> Ge <sub>0.23</sub> heterostructures. <i>Microelectronic Engineering</i> , <b>2000</b> , 53, 205-208	2.5
5	Analysis of terahertz-emitting SiGe quantum cascade structures by transmission electron microscopy <b>2018</b> , 155-158	
4	Advanced TEM analysis of strain-balanced Si/SiGe resonant tunnelling diode structures <b>2018</b> , 163-166	
3	Terahertz Control. <i>Springer Series in Optical Sciences</i> , <b>2014</b> , 179-202	0.5
2	Ge-on-Si Photonics for Mid-infrared Sensing Applications. <i>MRS Advances</i> , <b>2016</b> , 1, 3269-3279	0.7
1	Engineering Large In-Plane Tensile Strains in Ge Microdisks, Microrings and Racetrack Optical Cavities. <i>ECS Transactions</i> , <b>2016</b> , 75, 633-640	1