

# Roger Lake

## List of Publications by Year in descending order

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203  
papers

8,184  
citations

46918

47  
h-index

56606

83  
g-index

206  
all docs

206  
docs citations

206  
times ranked

10481  
citing authors

#	ARTICLE	IF	CITATIONS
1	Single and multiband modeling of quantum electron transport through layered semiconductor devices. <i>Journal of Applied Physics</i> , 1997, 81, 7845-7869.	1.1	719
2	Tin Disulfide—An Emerging Layered Metal Dichalcogenide Semiconductor: Materials Properties and Device Characteristics. <i>ACS Nano</i> , 2014, 8, 10743-10755.	7.3	449
3	Electronic and thermoelectric properties of few-layer transition metal dichalcogenides. <i>Journal of Chemical Physics</i> , 2014, 140, 124710.	1.2	321
4	Thermal Percolation Threshold and Thermal Properties of Composites with High Loading of Graphene and Boron Nitride Fillers. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 37555-37565.	4.0	243
5	Nonequilibrium Green's-function method applied to double-barrier resonant-tunneling diodes. <i>Physical Review B</i> , 1992, 45, 6670-6685.	1.1	220
6	Gate tunable quantum oscillations in air-stable and high mobility few-layer phosphorene heterostructures. <i>2D Materials</i> , 2015, 2, 011001.	2.0	209
7	Thermal conductivity of graphene with defects induced by electron beam irradiation. <i>Nanoscale</i> , 2016, 8, 14608-14616.	2.8	187
8	Electronic Properties of Silicon Nanowires. <i>IEEE Transactions on Electron Devices</i> , 2005, 52, 1097-1103.	1.6	177
9	A charge-density-wave oscillator based on an integrated tantalum disulfide—boron nitride—graphene device operating at room temperature. <i>Nature Nanotechnology</i> , 2016, 11, 845-850.	15.6	170
10	Monolayer $\text{MoS}_2$ Transistors Beyond the Technology Road Map. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 3250-3254.	1.6	156
11	Charge Density Waves in Exfoliated Films of van der Waals Materials: Evolution of Raman Spectrum in $\text{TiSe}_2$ . <i>Nano Letters</i> , 2012, 12, 5941-5945.	4.5	154
12	Quantitative simulation of a resonant tunneling diode. <i>Journal of Applied Physics</i> , 1997, 81, 3207-3213.	1.1	139
13	Electronic and thermoelectric properties of van der Waals materials with ring-shaped valence bands. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	120
14	Fundamentals of lateral and vertical heterojunctions of atomically thin materials. <i>Nanoscale</i> , 2016, 8, 3870-3887.	2.8	117
15	Towards van der Waals Epitaxial Growth of GaAs on Si using a Graphene Buffer Layer. <i>Advanced Functional Materials</i> , 2014, 24, 6629-6638.	7.8	113
16	Spin-phonon coupling in antiferromagnetic nickel oxide. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	109
17	Room temperature operation of epitaxially grown Si/Si <sub>0.5</sub> Ge <sub>0.5</sub> /Si resonant interband tunneling diodes. <i>Applied Physics Letters</i> , 1998, 73, 2191-2193.	1.5	104
18	Direct Bandgap Transition in Many-Layer $\text{MoS}_2$ by Plasma-Induced Layer Decoupling. <i>Advanced Materials</i> , 2015, 27, 1573-1578.	11.1	102

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19	Observation of magnon-mediated current drag in Pt/yttrium iron garnet/Pt(Ta) trilayers. Nature Communications, 2016, 7, 10858.	5.8	100
20	Quantum device simulation with a generalized tunneling formula. Applied Physics Letters, 1995, 67, 2539-2541.	1.5	99
21	Thermoelectric properties of Bi <sub>2</sub> Te <sub>3</sub> atomic quintuple thin films. Applied Physics Letters, 2010, 97, .	1.5	96
22	Covalent functionalization of single walled carbon nanotubes with peptide nucleic acid: Nanocomponents for molecular level electronics. Carbon, 2006, 44, 1730-1739.	5.4	95
23	Zone-Folded Phonons and the Commensurateâ€“Incommensurate Charge-Density-Wave Transition in TaSe <sub>2</sub> Thin Films. Nano Letters, 2015, 15, 2965-2973.	4.5	94
24	Role of dimensional crossover on spin-orbit torque efficiency in magnetic insulator thin films. Nature Communications, 2018, 9, 3612.	5.8	84
25	Binding a hopfion in a chiral magnet nanodisk. Physical Review B, 2018, 98, .	1.1	83
26	Hot carrier-enhanced interlayer electronâ€“hole pair multiplication in 2D semiconductor heterostructure photocells. Nature Nanotechnology, 2017, 12, 1134-1139.	15.6	74
27	Direct observation of confined acoustic phonon polarization branches in free-standing semiconductor nanowires. Nature Communications, 2016, 7, 13400.	5.8	71
28	Long-distance spin transport through a graphene quantum Hall antiferromagnet. Nature Physics, 2018, 14, 907-911.	6.5	70
29	Energy balance and heat exchange in mesoscopic systems. Physical Review B, 1992, 46, 4757-4763.	1.1	69
30	Topological charge analysis of ultrafast single skyrmion creation. Physical Review B, 2016, 93, .	1.1	62
31	Carbon Nanotubeâ€“DNA Nanoarchitectures and Electronic Functionality. Small, 2006, 2, 1356-1365.	5.2	61
32	Exchange-biasing topological charges by antiferromagnetism. Nature Communications, 2018, 9, 2767.	5.8	61
33	Full-band simulation of indirect phonon assisted tunneling in a silicon tunnel diode with delta-doped contacts. Applied Physics Letters, 2001, 78, 814-816.	1.5	60
34	Graphene-based non-Boolean logic circuits. Journal of Applied Physics, 2013, 114, .	1.1	60
35	Phonon and Thermal Properties of Quasi-Two-Dimensional FePS <sub>3</sub> and MnPS <sub>3</sub> Antiferromagnetic Semiconductors. ACS Nano, 2020, 14, 2424-2435.	7.3	58
36	Performance of 2 nm gate length carbon nanotube field-effect transistors with sourceâ€“drain underlaps. Applied Physics Letters, 2005, 87, 073104.	1.5	57

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37	Bias-Voltage Driven Switching of the Charge-Density-Wave and Normal Metallic Phases in 1T-TaS <sub>2</sub> Thin-Film Devices. ACS Nano, 2019, 13, 7231-7240.	7.3	57
38	Transmission resonances and zeros in multiband models. Physical Review B, 1995, 52, 2754-2765.	1.1	56
39	Gating of Single-Layer Graphene with Single-Stranded Deoxyribonucleic Acids. Small, 2010, 6, 1150-1155.	5.2	56
40	A brain-plausible neuromorphic on-the-fly learning system implemented with magnetic domain wall analog memristors. Science Advances, 2019, 5, eaau8170.	4.7	56
41	Effects of band-tails on the subthreshold characteristics of nanowire band-to-band tunneling transistors. Journal of Applied Physics, 2011, 110, .	1.1	54
42	Topological spin Hall effect resulting from magnetic skyrmions. Physical Review B, 2015, 92, .	1.1	53
43	Negative differential resistance in bilayer graphene nanoribbons. Applied Physics Letters, 2011, 98, .	1.5	52
44	Effective-mass reproducibility of the nearest-neighbors $s^*$ models: Analytic results. Physical Review B, 1997, 56, 4102-4107.	1.1	51
45	Phase Engineering of 2D Tin Sulfides. Small, 2016, 12, 2998-3004.	5.2	51
46	Raman spectra of twisted CVD bilayer graphene. Carbon, 2017, 123, 302-306.	5.4	50
47	Anomalous electron transport in back-gated field-effect transistors with TiTe <sub>2</sub> semimetal thin-film channels. Applied Physics Letters, 2012, 100, .	1.5	49
48	One-dimensional van der Waals quantum materials. Materials Today, 2022, 55, 74-91.	8.3	49
49	Performance of $n$ -Type InSb and InAs Nanowire Field-Effect Transistors. IEEE Transactions on Electron Devices, 2008, 55, 2939-2945.	1.6	48
50	Current-voltage characteristics of high current density silicon Esaki diodes grown by molecular beam epitaxy and the influence of thermal annealing. IEEE Transactions on Electron Devices, 2000, 47, 1707-1714.	1.6	47
51	Diffusion barrier cladding in Si/SiGe resonant interband tunneling diodes and their patterned growth on PMOS source/drain regions. IEEE Transactions on Electron Devices, 2003, 50, 1876-1884.	1.6	45
52	Leakage and performance of zero-Schottky-barrier carbon nanotube transistors. Journal of Applied Physics, 2005, 98, 064307.	1.1	44
53	Exciton condensate in bilayer transition metal dichalcogenides: Strong coupling regime. Physical Review B, 2017, 96, .	1.1	43
54	Magnetic properties of NbSi <sub>2</sub> N <sub>4</sub> , VSi <sub>2</sub> N <sub>4</sub> , and VSi <sub>2</sub> P <sub>4</sub> monolayers. Applied Physics Letters, 2021, 119, .	1.5	43

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55	Topological Transitions Induced by Antiferromagnetism in a Thin-Film Topological Insulator. <i>Physical Review Letters</i> , 2018, 121, 096802.	2.9	42
56	A physics based model for the RTD quantum capacitance. <i>IEEE Transactions on Electron Devices</i> , 2003, 50, 785-789.	1.6	41
57	Material Selection for Minimizing Direct Tunneling in Nanowire Transistors. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 2064-2069.	1.6	41
58	All-metallic electrically gated 2H-TaSe <sub>2</sub> thin-film switches and logic circuits. <i>Journal of Applied Physics</i> , 2014, 115, 034305.	1.1	41
59	Non-equilibrium Green function implementation of boundary conditions for full band simulations of substrate-nanowire structures. <i>Physica Status Solidi (B): Basic Research</i> , 2003, 239, 94-102.	0.7	39
60	Permanent Electric Dipole Moments of Carboxyamides in Condensed Media: What Are the Limitations of Theory and Experiment?. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9473-9490.	1.2	39
61	Skyrmion creation and annihilation by spin waves. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	39
62	151 kA/cm <sup>2</sup> peak current densities in Si/SiGe resonant interband tunneling diodes for high-power mixed-signal applications. <i>Applied Physics Letters</i> , 2003, 83, 3308-3310.	1.5	38
63	Commensurate lattice constant dependent thermal conductivity of misoriented bilayer graphene. <i>Carbon</i> , 2018, 138, 451-457.	5.4	38
64	Rate equations from the Keldysh formalism applied to the phonon peak in resonant-tunneling diodes. <i>Physical Review B</i> , 1993, 47, 6427-6438.	1.1	37
65	Role of interface roughness scattering in self-consistent resonant-tunneling-diode simulations. <i>Physical Review B</i> , 1998, 58, 7279-7285.	1.1	37
66	Conductance switching in diarylethenes bridging carbon nanotubes. <i>Journal of Chemical Physics</i> , 2011, 134, 024524.	1.2	37
67	Variable-temperature inelastic light scattering spectroscopy of nickel oxide: Disentangling phonons and magnons. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	37
68	Electron transport through a conjugated molecule with carbon nanotube leads. <i>Physical Review B</i> , 2007, 76, .	1.1	35
69	Acoustic phonon spectrum and thermal transport in nanoporous alumina arrays. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	35
70	Inelastic-scattering effects on single-barrier tunneling. <i>Physical Review B</i> , 1991, 43, 2442-2445.	1.1	34
71	Role of Carbon Interstitials in Transition Metal Substrates on Controllable Synthesis of High-Quality Large-Area Two-Dimensional Hexagonal Boron Nitride Layers. <i>Nano Letters</i> , 2018, 18, 3352-3361.	4.5	34
72	Skyrmion-Based Programmable Logic Device with Complete Boolean Logic Functions. <i>Physical Review Applied</i> , 2021, 15, .	1.5	34

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73	Making one-dimensional electrical contacts to molybdenum disulfide-based heterostructures through plasma etching. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 1358-1364.	0.8	32
74	Full band modeling of the excess current in a delta-doped silicon tunnel diode. <i>Journal of Applied Physics</i> , 2003, 94, 5005.	1.1	31
75	Three-terminal Si-based negative differential resistance circuit element with adjustable peak-to-valley current ratios using a monolithic vertical integration. <i>Applied Physics Letters</i> , 2004, 84, 2688-2690.	1.5	31
76	Drive Currents and Leakage Currents in InSb and InAs Nanowire and Carbon Nanotube Band-to-Band Tunneling FETs. <i>IEEE Electron Device Letters</i> , 2009, 30, 1257-1259.	2.2	31
77	Epitaxially grown Si resonant interband tunnel diodes exhibiting high current densities. <i>IEEE Electron Device Letters</i> , 1999, 20, 329-331.	2.2	30
78	Magnonic interferometric switch for multi-valued logic circuits. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	30
79	Electrically driven deep ultraviolet MgZnO lasers at room temperature. <i>Scientific Reports</i> , 2017, 7, 2677.	1.6	30
80	Si resonant interband tunnel diodes grown by low-temperature molecular-beam epitaxy. <i>Applied Physics Letters</i> , 1999, 75, 1308-1310.	1.5	29
81	Planar Hall Effect in Antiferromagnetic MnTe Thin Films. <i>Physical Review Letters</i> , 2019, 122, 106602.	2.9	29
82	Quantum Transport with Band-Structure and Schottky Contacts. <i>Physica Status Solidi (B): Basic Research</i> , 1997, 204, 354-357.	0.7	26
83	Effect of intervalley interaction on band topology of commensurate graphene/EuO heterostructures. <i>Physical Review B</i> , 2017, 95, .	1.1	26
84	The coherent interlayer resistance of a single, rotated interface between two stacks of AB graphite. <i>Applied Physics Letters</i> , 2013, 103, 243114.	1.5	25
85	Theoretical and experimental study of highly textured GaAs on silicon using a graphene buffer layer. <i>Journal of Crystal Growth</i> , 2015, 425, 268-273.	0.7	25
86	Tunable Lifshitz Transitions and Multiband Transport in Tetralayer Graphene. <i>Physical Review Letters</i> , 2018, 120, 096802.	2.9	25
87	Diameter dependent performance of high-speed, low-power InAs nanowire field-effect transistors. <i>Journal of Applied Physics</i> , 2010, 107, 014502.	1.1	24
88	Uniform Benchmarking of Low-Voltage van der Waals FETs. <i>IEEE Journal on Exploratory Solid-State Computational Devices and Circuits</i> , 2016, 2, 28-35.	1.1	24
89	Interfacial Dzyaloshinskii-Moriya interaction of antiferromagnetic materials. <i>Physical Review B</i> , 2020, 102, .	1.1	24
90	The Quantum and Classical Capacitance Limits of InSb and InAs Nanowire FETs. <i>IEEE Transactions on Electron Devices</i> , 2009, 56, 2215-2223.	1.6	23

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91	Theoretical design of bioinspired macromolecular electrets based on anthranilamide derivatives. <i>Biotechnology Progress</i> , 2009, 25, 915-922.	1.3	23
92	Deficiency of the bulk spin Hall effect model for spin-orbit torques in magnetic-insulator/heavy-metal heterostructures. <i>Physical Review B</i> , 2017, 95, .	1.1	23
93	Effect of localized oxygen functionalization on the conductance of metallic carbon nanotubes. <i>Physical Review B</i> , 2009, 79, .	1.1	21
94	Synthesis of Atomically Thin $\text{MoS}_2$ Triangles and Hexagons and Their Electrical Transport Properties. <i>IEEE Nanotechnology Magazine</i> , 2014, 13, 749-754.	1.1	21
95	Two step growth phenomena of molybdenum disulfide tungsten disulfide heterostructures. <i>Chemical Communications</i> , 2015, 51, 11213-11216.	2.2	21
96	Conductance of a conjugated molecule with carbon nanotube contacts. <i>Physical Review B</i> , 2009, 80, .	1.1	20
97	Growth Dynamics of Millimeter-Sized Single-Crystal Hexagonal Boron Nitride Monolayers on Secondary Recrystallized Ni (100) Substrates. <i>Advanced Materials Interfaces</i> , 2019, 6, 1901198.	1.9	20
98	Strain control of the Néel vector in Mn-based antiferromagnets. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	20
99	Dielectric scaling of a zero-Schottky-barrier, 5nm gate, carbon nanotube transistor with source/drain underlaps. <i>Journal of Applied Physics</i> , 2006, 100, 024317.	1.1	19
100	Role of Doping in Carbon Nanotube Transistors With Source/Drain Underlaps. <i>IEEE Nanotechnology Magazine</i> , 2007, 6, 652-658.	1.1	19
101	Effect of Random, Discrete Source Dopant Distributions on Nanowire Tunnel FETs. <i>IEEE Transactions on Electron Devices</i> , 2014, 61, 2208-2214.	1.6	19
102	Topological Winding Number Change and Broken Inversion Symmetry in a Hofstadter's Butterfly. <i>Nano Letters</i> , 2015, 15, 6395-6399.	4.5	19
103	Shape dependent resonant modes of skyrmions in magnetic nanodisks. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 455, 9-13.	1.0	19
104	Room-Temperature Electrodeposition of Aluminum via Manipulating Coordination Structure in $\text{AlCl}_3$ Solutions. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1589-1593.	2.1	18
105	Elastic and inelastic scattering in quantum dots in the Coulomb-blockade regime. <i>Physical Review B</i> , 1994, 50, 5484-5496.	1.1	17
106	Carbon nanotube - molecular resonant tunneling diode. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, R5-R7.	0.8	17
107	Doping, Tunnel Barriers, and Cold Carriers in InAs and InSb Nanowire Tunnel Transistors. <i>IEEE Transactions on Electron Devices</i> , 2012, 59, 2996-3001.	1.6	17
108	Strain Gated Bilayer Molybdenum Disulfide Field Effect Transistor with Edge Contacts. <i>Scientific Reports</i> , 2017, 7, 41593.	1.6	17

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109	Charged impurity scattering in two-dimensional materials with ring-shaped valence bands: GaS, GaSe, InS, and InSe. <i>Physical Review B</i> , 2019, 99, .	1.1	17
110	Rate equations for the phonon peak in resonant-tunneling structures. <i>Physical Review B</i> , 1993, 48, 15132-15137.	1.1	16
111	Epitaxial Si-based tunnel diodes. <i>Thin Solid Films</i> , 2000, 380, 145-150.	0.8	16
112	Synthesis and characterization of peptide nucleic acidâ€“platinum nanoclusters. <i>Nanotechnology</i> , 2006, 17, 1177-1183.	1.3	16
113	Performance Metrics of a 5 nm, Planar, Top Gate, Carbon Nanotube on Insulator (COI) Transistor. <i>IEEE Nanotechnology Magazine</i> , 2007, 6, 186-190.	1.1	16
114	Current modulation by voltage control of the quantum phase in crossed graphene nanoribbons. <i>Physical Review B</i> , 2012, 86, .	1.1	16
115	High-frequency current oscillations in charge-density-wave 1T-TaS <sub>2</sub> devices: Revisiting the â€œnarrow band noiseâ€•concept. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	15
116	Large spin Hall effect in Si at room temperature. <i>Physical Review B</i> , 2020, 101, .	1.1	15
117	Room temperature depinning of the charge-density waves in quasi-two-dimensional 1T-TaS <sub>2</sub> devices. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	15
118	Resolution of Resonances in a General Purpose Quantum Device Simulator (NEMO). <i>VLSI Design</i> , 1998, 6, 107-110.	0.5	14
119	Strain-Controlled Superconductivity in Few-Layer NbSe <sub>2</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 38744-38750.	4.0	14
120	Modeling and performance analysis of GaN nanowire field-effect transistors and band-to-band tunneling field-effect transistors. <i>Journal of Applied Physics</i> , 2010, 108, 104503.	1.1	13
121	Core size dependence of the confinement energies, barrier heights, and hole lifetimes in Ge-core/Si-shell nanocrystals. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	13
122	Synthesis, characterization, and electronic structure of few-layer MoSe <sub>2</sub> granular films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2671-2676.	0.8	13
123	A Study of Vertical Transport through Graphene toward Control of Quantum Tunneling. <i>Nano Letters</i> , 2018, 18, 682-688.	4.5	13
124	Hybrid Graphene Nanoribbon-CMOS tunneling volatile memory fabric. , 2011, , .		12
125	Strong Circularly Polarized Photoluminescence from Multilayer MoS <sub>2</sub> Through Plasma Driven Direct-Gap Transition. <i>ACS Photonics</i> , 2016, 3, 310-314.	3.2	12
126	Interlayer transport through a graphene/rotated boron nitride/graphene heterostructure. <i>Physical Review B</i> , 2017, 95, .	1.1	12



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127	Interlayer resistance of misoriented MoS <sub>2</sub> . Physical Chemistry Chemical Physics, 2017, 19, 10406-10412.	1.3	12
128	Robust Skyrmion Shift Device Through Engineering the Local Exchange-Bias Field. Physical Review Applied, 2020, 14, .	1.5	12
129	Phononic and photonic properties of shape-engineered silicon nanoscale pillar arrays. Nanotechnology, 2020, 31, 30LT01.	1.3	12
130	Electronic properties of carbon nanotubes calculated from density functional theory and the empirical $\sigma$ -bond model. Journal of Computational Electronics, 2007, 6, 395-400.	1.3	11
131	$\text{TiSi}_2$ Nanocrystal Metal Oxide Semiconductor Field Effect Transistor Memory. IEEE Nanotechnology Magazine, 2011, 10, 499-505.	1.1	10
132	Electrically driven plasmon-exciton coupled random lasing in ZnO metal-semiconductor-metal devices. Applied Surface Science, 2018, 439, 525-532.	3.1	10
133	Metallic <i>vs.</i> semiconducting properties of quasi-one-dimensional tantalum selenide van der Waals nanoribbons. Nanoscale, 2022, 14, 6133-6143.	2.8	10
134	Performance analysis of InP nanowire band-to-band tunneling field-effect transistors. Applied Physics Letters, 2009, 95, 073504.	1.5	9
135	Spin-Josephson effects in exchange coupled antiferromagnetic insulators. Physical Review B, 2016, 94, .	1.1	9
136	Magnonic holographic imaging of magnetic microstructures. Journal of Magnetism and Magnetic Materials, 2017, 428, 348-356.	1.0	9
137	Chemical vapor deposition and phase stability of pyrite on SiO <sub>2</sub> . Journal of Materials Chemistry C, 2018, 6, 4753-4759.	2.7	9
138	Quantum parity Hall effect in Bernal-stacked trilayer graphene. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10286-10290.	3.3	9
139	The Effects of Electron Screening Length and Emitter Quasi-Bound States on the Polar-Optical Phonon Scattering in Resonant Tunneling Diodes. Physica Status Solidi (B): Basic Research, 1997, 204, 408-411.	0.7	8
140	Electronic transport through a CNT-Pseudopeptide-CNT hybrid material. Molecular Simulation, 2005, 31, 859-864.	0.9	8
141	Coulomb impurity scattering in topological insulator thin films. Applied Physics Letters, 2014, 105, 033118.	1.5	8
142	Nanoscale phononic interconnects in THz frequencies. Physical Chemistry Chemical Physics, 2014, 16, 23355-23364.	1.3	8
143	Graphene contacts to a HfSe <sub>2</sub> /SnS <sub>2</sub> heterostructure. Journal of Chemical Physics, 2017, 146, 064701.	1.2	8
144	Thermal conductivity of the quasi-one-dimensional materials TaSe <sub>3</sub> and ZrTe <sub>3</sub> . Physical Review Materials, 2021, 5, .	0.9	8

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145	Numerically generated resonant tunneling diode equivalent circuit parameters. Journal of Applied Physics, 1994, 76, 3850-3857.	1.1	7
146	High figure of merit magneto-optics from interfacial skyrmions on topological insulators. Physical Review B, 2018, 98, .	1.1	7
147	Gate controlled Majorana zero modes of a two-dimensional topological superconductor. Applied Physics Letters, 2018, 113, 012601.	1.5	7
148	Electron transport through antiferromagnetic spin textures and skyrmions in a magnetic tunnel junction. Physical Review B, 2020, 102, .	1.1	7
149	Growth of High-Quality Hexagonal Boron Nitride Single-Layer Films on Carburized Ni Substrates for Metal-Insulator-Metal Tunneling Devices. ACS Applied Materials & Interfaces, 2020, 12, 35318-35327.	4.0	7
150	Effects of filling, strain, and electric field on the Néel vector in antiferromagnetic CrSb. Physical Review B, 2020, 102, .	1.1	7
151	Self-Assembled Carbon Nanotubes for Electronic Circuit and Device Applications. Journal of Nanoelectronics and Optoelectronics, 2006, 1, 74-81.	0.1	7
152	Quantum kinetic analysis of mesoscopic systems: Linear response. Superlattices and Microstructures, 1992, 11, 137-140.	1.4	6
153	Writing Research Software in a Large Group for the NEMO Project. VLSI Design, 1998, 8, 79-86.	0.5	6
154	Tunneling spectroscopy of chiral states in ultra-thin topological insulators. Journal of Applied Physics, 2013, 113, 063707.	1.1	6
155	Vibronic Exciton-Phonon States in Stack-Engineered van der Waals Heterojunction Photodiodes. Nano Letters, 2022, 22, 5751-5758.	4.5	6
156	A Generalized Tunneling Formula for Quantum Device Modeling. VLSI Design, 1998, 6, 9-12.	0.5	5
157	The quantum capacitance limit of high-speed, low-power InSb nanowire field effect transistors. , 2008, , .		5
158	Electronic states of Ge/Si nanocrystals with crescent-shaped Ge-cores. Journal of Applied Physics, 2012, 112, .	1.1	5
159	Interlayer magnetoconductance of misoriented bilayer graphene ribbons. Journal of Applied Physics, 2013, 114, .	1.1	5
160	Multi-state current switching by voltage controlled coupling of crossed graphene nanoribbons. Journal of Applied Physics, 2013, 114, 153710.	1.1	5
161	Effect of strain on the electronic and optical properties of Ge-Si dome shaped nanocrystals. Physical Chemistry Chemical Physics, 2015, 17, 2484-2493.	1.3	5
162	Synthetic antiferromagnet-based spin Josephson oscillator. Applied Physics Letters, 2020, 116, 132409.	1.5	5

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163	Numerical approximations to the treatment of interface roughness scattering in resonant tunnelling diodes. <i>Semiconductor Science and Technology</i> , 1998, 13, A165-A168.	1.0	4
164	The effect of interface quality on Si / SiO <sub>2</sub> resonant tunnel diodes. <i>Superlattices and Microstructures</i> , 2001, 30, 201-204.	1.4	4
165	NON-EQUILIBRIUM GREEN'S FUNCTIONS IN SEMICONDUCTOR DEVICE MODELING. , 2003, , .		4
166	Self-Consistent Transit-Time Model for a Resonant Tunnel Diode. <i>IEEE Transactions on Electron Devices</i> , 2004, 51, 535-541.	1.6	4
167	Strong cavity-pseudospin coupling in monolayer transition metal dichalcogenides. <i>Physical Review B</i> , 2017, 96, .	1.1	4
168	Anomalous Magneto-Optical Effects in an Antiferromagnetic Topological-Insulator Heterostructure. <i>Physical Review Applied</i> , 2021, 16, .	1.5	4
169	Carrier leakage in Ge/Si core-shell nanocrystals for lasers: core size and strain effects. <i>Proceedings of SPIE</i> , 2011, , .	0.8	3
170	Computational study of negative differential resistance in graphene bilayer nanostructures. , 2011, , .		3
171	A Material Framework for Beyond-CMOS Devices. <i>IEEE Journal on Exploratory Solid-State Computational Devices and Circuits</i> , 2015, 1, 19-27.	1.1	3
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