

Gerhard Klimeck

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411
papers

12,559
citations

56
h-index

98
g-index

472
ext. papers

14,434
ext. citations

4
avg, IF

6.38
L-index

#	Paper	IF	Citations
411	Silicon quantum electronics. <i>Reviews of Modern Physics</i> , 2013 , 85, 961-1019	40.5	679
410	Single and multiband modeling of quantum electron transport through layered semiconductor devices. <i>Journal of Applied Physics</i> , 1997 , 81, 7845-7869	2.5	595
409	A single-atom transistor. <i>Nature Nanotechnology</i> , 2012 , 7, 242-6	28.7	587
408	Valence band effective-mass expressions in the sp ³ d ⁵ s* empirical tight-binding model applied to a Si and Ge parametrization. <i>Physical Review B</i> , 2004 , 69,	3.3	294
407	Atomistic simulation of nanowires in the sp ³ d ⁵ s* tight-binding formalism: From boundary conditions to strain calculations. <i>Physical Review B</i> , 2006 , 74,	3.3	289
406	Ohm's law survives to the atomic scale. <i>Science</i> , 2012 , 335, 64-7	33.3	246
405	Gate-induced quantum-confinement transition of a single dopant atom in a silicon FinFET. <i>Nature Physics</i> , 2008 , 4, 656-661	16.2	244
404	Diagonal parameter shifts due to nearest-neighbor displacements in empirical tight-binding theory. <i>Physical Review B</i> , 2002 , 66,	3.3	197
403	Atomistic full-band simulations of silicon nanowire transistors: Effects of electron-phonon scattering. <i>Physical Review B</i> , 2009 , 80,	3.3	182
402	Spin-valley lifetimes in a silicon quantum dot with tunable valley splitting. <i>Nature Communications</i> , 2013 , 4, 2069	17.4	179
401	Boundary conditions for the electronic structure of finite-extent embedded semiconductor nanostructures. <i>Physical Review B</i> , 2004 , 69,	3.3	171
400	Atomistic Simulation of Realistically Sized Nanodevices Using NEMO 3-DBart I: Models and Benchmarks. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2079-2089	2.9	160
399	Electronic properties of silicon nanowires. <i>IEEE Transactions on Electron Devices</i> , 2005 , 52, 1097-1103	2.9	151
398	Performance analysis of a Ge/Si core/shell nanowire field-effect transistor. <i>Nano Letters</i> , 2007 , 7, 642-6	11.5	143
397	Bandstructure Effects in Silicon Nanowire Electron Transport. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 1286-1297	2.9	142
396	On the validity of the parabolic effective-mass approximation for the I-V calculation of silicon nanowire transistors. <i>IEEE Transactions on Electron Devices</i> , 2005 , 52, 1589-1595	2.9	139
395	Simulation of nanowire tunneling transistors: From the Wentzel-Kramers-Brillouin approximation to full-band phonon-assisted tunneling. <i>Journal of Applied Physics</i> , 2010 , 107, 084507	2.5	138

394	Electrically Tunable Bandgaps in Bilayer MoS ₂ . <i>Nano Letters</i> , 2015 , 15, 8000-7	11.5	127
393	nanoHUB.org: Advancing Education and Research in Nanotechnology. <i>Computing in Science and Engineering</i> , 2008 , 10, 17-23	1.5	126
392	Tunnel Field-Effect Transistors in 2-D Transition Metal Dichalcogenide Materials. <i>IEEE Journal on Exploratory Solid-State Computational Devices and Circuits</i> , 2015 , 1, 12-18	2.4	122
391	Valley splitting in strained silicon quantum wells. <i>Applied Physics Letters</i> , 2004 , 84, 115-117	3.4	119
390	Atomistic Full-Band Design Study of InAs Band-to-Band Tunneling Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , 2009 , 30, 602-604	4.4	117
389	NEMO5: A Parallel Multiscale Nanoelectronics Modeling Tool. <i>IEEE Nanotechnology Magazine</i> , 2011 , 10, 1464-1474	2.6	113
388	Quantitative simulation of a resonant tunneling diode. <i>Journal of Applied Physics</i> , 1997 , 81, 3207-3213	2.5	111
387	TeraGrid Science Gateways and Their Impact on Science. <i>Computer</i> , 2008 , 41, 32-41	1.6	110
386	Electron-hole correlations in semiconductor quantum dots with tight-binding wave functions. <i>Physical Review B</i> , 2001 , 63,	3.3	110
385	Electromagnetic coupling and gauge invariance in the empirical tight-binding method. <i>Physical Review B</i> , 2001 , 63,	3.3	100
384	Experimental verification of an optical negative-index material. <i>Laser Physics Letters</i> , 2006 , 3, 49-55	1.5	97
383	Electrically controlling single-spin qubits in a continuous microwave field. <i>Science Advances</i> , 2015 , 1, e150022	11.9	96
382	Conductance spectroscopy in coupled quantum dots. <i>Physical Review B</i> , 1994 , 50, 2316-2324	3.3	93
381	Resonant tunneling through quantum-dot arrays. <i>Physical Review B</i> , 1994 , 50, 8035-8038	3.3	90
380	Spin blockade and exchange in Coulomb-confined silicon double quantum dots. <i>Nature Nanotechnology</i> , 2014 , 9, 430-5	28.7	89
379	Silicon quantum processor with robust long-distance qubit couplings. <i>Nature Communications</i> , 2017 , 8, 450	17.4	89
378	Valley splitting in low-density quantum-confined heterostructures studied using tight-binding models. <i>Physical Review B</i> , 2004 , 70,	3.3	88
377	High precision quantum control of single donor spins in silicon. <i>Physical Review Letters</i> , 2007 , 99, 036403	7.4	87

376	Si tight-binding parameters from genetic algorithm fitting. <i>Superlattices and Microstructures</i> , 2000 , 27, 77-88	2.8	87
375	Room temperature operation of epitaxially grown Si/Si _{0.5} Ge _{0.5} /Si resonant interband tunneling diodes. <i>Applied Physics Letters</i> , 1998 , 73, 2191-2193	3.4	87
374	. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2090-2099	2.9	85
373	Quantum device simulation with a generalized tunneling formula. <i>Applied Physics Letters</i> , 1995 , 67, 2539-2541	3.4	84
372	Approximate bandstructures of semiconductor alloys from tight-binding supercell calculations. <i>Journal of Physics Condensed Matter</i> , 2007 , 19, 036203	1.8	83
371	Valley splitting in strained silicon quantum wells modeled with 2° miscuts, step disorder, and alloy disorder. <i>Applied Physics Letters</i> , 2007 , 90, 092109	3.4	82
370	sp ³ s* Tight-binding parameters for transport simulations in compound semiconductors. <i>Superlattices and Microstructures</i> , 2000 , 27, 519-524	2.8	81
369	Practical application of zone-folding concepts in tight-binding calculations. <i>Physical Review B</i> , 2005 , 71,	3.3	80
368	Efficient and realistic device modeling from atomic detail to the nanoscale. <i>Journal of Computational Electronics</i> , 2013 , 12, 592-600	1.8	78
367	Few-layer Phosphorene: An Ideal 2D Material For Tunnel Transistors. <i>Scientific Reports</i> , 2016 , 6, 28515	4.9	78
366	Complementary Black Phosphorus Tunneling Field-Effect Transistors. <i>ACS Nano</i> , 2019 , 13, 377-385	16.7	78
365	A Three-Dimensional Simulation Study of the Performance of Carbon Nanotube Field-Effect Transistors With Doped Reservoirs and Realistic Geometry. <i>IEEE Transactions on Electron Devices</i> , 2006 , 53, 1782-1788	2.9	75
364	Spatially resolving valley quantum interference of a donor in silicon. <i>Nature Materials</i> , 2014 , 13, 605-10	27	68
363	Performance analysis of statistical samples of graphene nanoribbon tunneling transistors with line edge roughness. <i>Applied Physics Letters</i> , 2009 , 94, 223505	3.4	66
362	. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 2107-2114	2.9	64
361	Effect of wetting layers on the strain and electronic structure of InAs self-assembled quantum dots. <i>Physical Review B</i> , 2004 , 70,	3.3	63
360	Computational Electronics		62
359	Dielectric Engineered Tunnel Field-Effect Transistor. <i>IEEE Electron Device Letters</i> , 2015 , 36, 1097-1100	4.4	61

358	Leakage-Reduction Design Concepts for Low-Power Vertical Tunneling Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , 2010 , 31, 621-623	4.4	61
357	Performance comparisons of tunneling field-effect transistors made of InSb, Carbon, and GaSb-InAs broken gap heterostructures 2009 ,		59
356	Brillouin-zone unfolding of perfect supercells having nonequivalent primitive cells illustrated with a SiGe tight-binding parameterization. <i>Physical Review B</i> , 2007 , 76,	3.3	57
355	Polarization-Engineered III-Nitride Heterojunction Tunnel Field-Effect Transistors. <i>IEEE Journal on Exploratory Solid-State Computational Devices and Circuits</i> , 2015 , 1, 28-34	2.4	54
354	Saving Moore's Law Down To 1 nm Channels With Anisotropic Effective Mass. <i>Scientific Reports</i> , 2016 , 6, 31501	4.9	54
353	Quantum simulation of the Hubbard model with dopant atoms in silicon. <i>Nature Communications</i> , 2016 , 7, 11342	17.4	54
352	Modified valence force field approach for phonon dispersion: from zinc-blende bulk to nanowires. <i>Journal of Computational Electronics</i> , 2010 , 9, 160-172	1.8	50
351	Full-band simulation of indirect phonon assisted tunneling in a silicon tunnel diode with delta-doped contacts. <i>Applied Physics Letters</i> , 2001 , 78, 814-816	3.4	50
350	Evolution of analog circuits on field programmable transistor arrays		50
349	. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 1371-1380	2.9	49
348	Computational aspects of the three-dimensional feature-scale simulation of silicon-nanowire field-effect sensors for DNA detection. <i>Journal of Computational Electronics</i> , 2007 , 6, 387-390	1.8	49
347	Many-body levels of optically excited and multiply charged InAs nanocrystals modeled by semiempirical tight binding. <i>Physical Review B</i> , 2002 , 66,	3.3	49
346	Orbital Stark effect and quantum confinement transition of donors in silicon. <i>Physical Review B</i> , 2009 , 80,	3.3	48
345	Effective-mass reproducibility of the nearest-neighbor sp ³ s* models: Analytic results. <i>Physical Review B</i> , 1997 , 56, 4102-4107	3.3	48
344	Band-Structure Effects on the Performance of III-V Ultrathin-Body SOI MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 1116-1122	2.9	48
343	Transmission resonances and zeros in multiband models. <i>Physical Review B</i> , 1995 , 52, 2754-2765	3.3	48
342	Bandstructure Effects in Silicon Nanowire Hole Transport. <i>IEEE Nanotechnology Magazine</i> , 2008 , 7, 710-718		46
341	Moving Toward Nano-TCAD Through Multimillion-Atom Quantum-Dot Simulations Matching Experimental Data. <i>IEEE Nanotechnology Magazine</i> , 2009 , 8, 330-344	2.6	44

340	A Tight-Binding Study of the Ballistic Injection Velocity for Ultrathin-Body SOI MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 866-871	2.9	44
339	Effect of anharmonicity of the strain energy on band offsets in semiconductor nanostructures. <i>Applied Physics Letters</i> , 2004 , 85, 4193-4195	3.4	44
338	Thickness Engineered Tunnel Field-Effect Transistors Based on Phosphorene. <i>IEEE Electron Device Letters</i> , 2017 , 38, 130-133	4.4	43
337	Computing entries of the inverse of a sparse matrix using the FIND algorithm. <i>Journal of Computational Physics</i> , 2008 , 227, 9408-9427	4.1	43
336	Experimental and atomistic theoretical study of degree of polarization from multilayer InAs/GaAs quantum dot stacks. <i>Physical Review B</i> , 2011 , 84,	3.3	41
335	Tight-binding analysis of Si and GaAs ultrathin bodies with subatomic wave-function resolution. <i>Physical Review B</i> , 2015 , 92,	3.3	40
334	Physical oxide thickness extraction and verification using quantum mechanical simulation		39
333	Material Selection for Minimizing Direct Tunneling in Nanowire Transistors. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 2064-2069	2.9	38
332	The discretized Schrödinger equation and simple models for semiconductor quantum wells. <i>European Journal of Physics</i> , 2004 , 25, 503-514	0.8	38
331	Transferable tight-binding model for strained group IV and III-V materials and heterostructures. <i>Physical Review B</i> , 2016 , 94,	3.3	37
330	Coherent control of a single ^{15}Bi nuclear spin qubit. <i>Physical Review Letters</i> , 2014 , 113, 246801	7.4	37
329	Strain-induced, off-diagonal, same-atom parameters in empirical tight-binding theory suitable for [110] uniaxial strain applied to a silicon parametrization. <i>Physical Review B</i> , 2010 , 81,	3.3	37
328	Computational Study on the Performance of Si Nanowire pMOSFETs Based on the $k \cdot p$ Method. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 2274-2283	2.9	36
327	Optimum High-k Oxide for the Best Performance of Ultra-Scaled Double-Gate MOSFETs. <i>IEEE Nanotechnology Magazine</i> , 2016 , 15, 904-910	2.6	36
326	. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 2171-2177	2.9	35
325	Gate-induced g-factor control and dimensional transition for donors in multivalley semiconductors. <i>Physical Review B</i> , 2009 , 80,	3.3	35
324	Performance evaluation of ballistic silicon nanowire transistors with atomic-basis dispersion relations. <i>Applied Physics Letters</i> , 2005 , 86, 093113	3.4	35
323	Rate equations from the Keldysh formalism applied to the phonon peak in resonant-tunneling diodes. <i>Physical Review B</i> , 1993 , 47, 6427-6438	3.3	33

322	Scaling Theory of Electrically Doped 2D Transistors. <i>IEEE Electron Device Letters</i> , 2015 , 36, 726-728	4.4	32
321	Design concepts of terahertz quantum cascade lasers: Proposal for terahertz laser efficiency improvements. <i>Applied Physics Letters</i> , 2010 , 97, 261106	3.4	32
320	Highly tunable exchange in donor qubits in silicon. <i>Npj Quantum Information</i> , 2016 , 2,	8.6	31
319	Probing scattering mechanisms with symmetric quantum cascade lasers. <i>Optics Express</i> , 2013 , 21, 7209-153	3.5	31
318	nanoHUB.org: cloud-based services for nanoscale modeling, simulation, and education. <i>Nanotechnology Reviews</i> , 2013 , 2, 107-117	6.3	31
317	Simulations of nanowire transistors: atomistic vs. effective mass models. <i>Journal of Computational Electronics</i> , 2008 , 7, 363-366	1.8	31
316	Role of interface roughness scattering in self-consistent resonant-tunneling-diode simulations. <i>Physical Review B</i> , 1998 , 58, 7279-7285	3.3	30
315	Can Homojunction Tunnel FETs Scale Below 10 nm?. <i>IEEE Electron Device Letters</i> , 2016 , 37, 115-118	4.4	29
314	Interface-induced spin-orbit interaction in silicon quantum dots and prospects for scalability. <i>Physical Review B</i> , 2018 , 97,	3.3	29
313	Design Guidelines for Sub-12 nm Nanowire MOSFETs. <i>IEEE Nanotechnology Magazine</i> , 2015 , 14, 210-213	2.6	29
312	Accurate six-band nearest-neighbor tight-binding model for the Ebands of bulk graphene and graphene nanoribbons. <i>Journal of Applied Physics</i> , 2011 , 109, 104304	2.5	29
311	Coupled Mode Space Approach for the Simulation of Realistic Carbon Nanotube Field-Effect Transistors. <i>IEEE Nanotechnology Magazine</i> , 2007 , 6, 475-480	2.6	29
310	. <i>IEEE Journal of the Electron Devices Society</i> , 2016 , 4, 124-128	2.3	29
309	Giant quasiparticle bandgap modulation in graphene nanoribbons supported on weakly interacting surfaces. <i>Applied Physics Letters</i> , 2013 , 103, 133107	3.4	28
308	Electronic structure of realistically extended atomistically resolved disordered Si:P E-doped layers. <i>Physical Review B</i> , 2011 , 84,	3.3	28
307	Structures and energetics of silicon nanotubes from molecular dynamics and density functional theory. <i>Physical Review B</i> , 2008 , 78,	3.3	28
306	On the bandstructure velocity and ballistic current of ultra-narrow silicon nanowire transistors as a function of cross section size, orientation, and bias. <i>Journal of Applied Physics</i> , 2010 , 107, 113701	2.5	27
305	Quantitative excited state spectroscopy of a single InGaAs quantum dot molecule through multi-million-atom electronic structure calculations. <i>Nanotechnology</i> , 2011 , 22, 315709	3.4	27

304	Quantum transport with spin dephasing: A nonequilibrium Green's function approach. <i>Physical Review B</i> , 2007 , 76,	3.3	27
303	Interactions of Fano resonances in the transmission of an Aharonov-Bohm ring with two embedded quantum dots in the presence of a magnetic field. <i>Physical Review B</i> , 2005 , 72,	3.3	27
302	Interface roughness, polar optical phonons, and the valley current of a resonant tunneling diode. <i>Superlattices and Microstructures</i> , 1996 , 20, 279-285	2.8	27
301	Engineered valley-orbit splittings in quantum-confined nanostructures in silicon. <i>Physical Review B</i> , 2011 , 83,	3.3	26
300	Dramatic Impact of Dimensionality on the Electrostatics of P-N Junctions and Its Sensing and Switching Applications. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 293-298	2.6	25
299	Noninvasive spatial metrology of single-atom devices. <i>Nano Letters</i> , 2013 , 13, 1903-9	11.5	25
298	Spin-orbit splittings in Si/SiGe quantum wells: from ideal Si membranes to realistic heterostructures. <i>New Journal of Physics</i> , 2011 , 13, 013009	2.9	25
297	Atomistic simulations of adiabatic coherent electron transport in triple donor systems. <i>Physical Review B</i> , 2009 , 80,	3.3	25
296	Full band modeling of the excess current in a delta-doped silicon tunnel diode. <i>Journal of Applied Physics</i> , 2003 , 94, 5005	2.5	25
295	From Fowler-Nordheim to Nonequilibrium Green's Function Modeling of Tunneling. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 2871-2878	2.9	25
294	Experimental and theoretical study of polarization-dependent optical transitions in InAs quantum dots at telecommunication-wavelengths (1300-1500 nm). <i>Journal of Applied Physics</i> , 2011 , 109, 104510	2.5	24
293	Influence of vacancies on metallic nanotube transport properties. <i>Applied Physics Letters</i> , 2007 , 90, 1821-4	3.4	24
292	Design space for low sensitivity to size variations in [110] PMOS nanowire devices: the implications of anisotropy in the quantization mass. <i>Nano Letters</i> , 2009 , 9, 623-30	11.5	23
291	Valley splitting in Si quantum dots embedded in SiGe. <i>Applied Physics Letters</i> , 2008 , 93, 112102	3.4	23
290	Hub-based simulation and graphics hardware accelerated visualization for nanotechnology applications. <i>IEEE Transactions on Visualization and Computer Graphics</i> , 2006 , 12, 1061-8	4	23
289	Design principles for HgTe based topological insulator devices. <i>Journal of Applied Physics</i> , 2013 , 114, 043702	2.5	22
288	Enhanced valence force field model for the lattice properties of gallium arsenide. <i>Physical Review B</i> , 2011 , 84,	3.3	22
287	Cyber-Enabled Simulations in Nanoscale Science and Engineering. <i>Computing in Science and Engineering</i> , 2010 , 12, 12-17	1.5	22

286	Effect of electron-nuclear spin interactions for electron-spin qubits localized in InGaAs self-assembled quantum dots. <i>Journal of Applied Physics</i> , 2005 , 97, 043706	2.5	22
285	Strong wavevector dependence of hole transport in heterostructures. <i>Superlattices and Microstructures</i> , 2001 , 29, 187-216	2.8	22
284	Valence-band warping in tight-binding models. <i>Physical Review B</i> , 1999 , 59, 7301-7304	3.3	22
283	Simulation Study of Thin-Body Ballistic n-MOSFETs Involving Transport in Mixed Γ -L Valleys. <i>IEEE Electron Device Letters</i> , 2013 , 34, 1196-1198	4.4	21
282	Full band atomistic modeling of homo-junction InGaAs band-to-band tunneling diodes including band gap narrowing. <i>Applied Physics Letters</i> , 2012 , 100, 063504	3.4	21
281	Quantum Transport with Band-Structure and Schottky Contacts. <i>Physica Status Solidi (B): Basic Research</i> , 1997 , 204, 354-357	1.3	21
280	Effect of diameter variation on electrical characteristics of Schottky barrier indium arsenide nanowire field-effect transistors. <i>ACS Nano</i> , 2014 , 8, 6281-7	16.7	20
279	A predictive analytic model for high-performance tunneling field-effect transistors approaching non-equilibrium Green's function simulations. <i>Journal of Applied Physics</i> , 2015 , 118, 164305	2.5	20
278	Lifetime-enhanced transport in silicon due to spin and valley blockade. <i>Physical Review Letters</i> , 2011 , 107, 136602	7.4	20
277	Current density and continuity in discretized models. <i>European Journal of Physics</i> , 2010 , 31, 1077-1087	0.8	20
276	Performance Prediction of Ultrascaled SiGe/Si Core/Shell Electron and Hole Nanowire MOSFETs. <i>IEEE Electron Device Letters</i> , 2010 , 31, 278-280	4.4	20
275	Atomistic approach to alloy scattering in Si _{1-x} Ge _x . <i>Applied Physics Letters</i> , 2011 , 98, 173503	3.4	20
274	Indirectly pumped 3.7 THz InGaAs/InAlAs quantum-cascade lasers grown by metal-organic vapor-phase epitaxy. <i>Optics Express</i> , 2012 , 20, 20647-58	3.3	20
273	High-Current Tunneling FETs With ($\{1\}0\bar{1}$) Orientation and a Channel Heterojunction. <i>IEEE Electron Device Letters</i> , 2016 , 37, 345-348	4.4	19
272	Learning and research in the cloud. <i>Nature Nanotechnology</i> , 2013 , 8, 786-9	28.7	19
271	Limits to metallic conduction in atomic-scale quasi-one-dimensional silicon wires. <i>Physical Review Letters</i> , 2014 , 113, 246802	7.4	19
270	The polarization response in InAs quantum dots: theoretical correlation between composition and electronic properties. <i>Nanotechnology</i> , 2012 , 23, 165202	3.4	19
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268	Mechanical modeling of fretting cycles in electrical contacts. <i>Wear</i> , 2001 , 249, 12-19	3.5	19
267	Resonant-tunneling diodes with emitter prewells. <i>Applied Physics Letters</i> , 1999 , 75, 1302-1304	3.4	19
266	Switching Mechanism and the Scalability of Vertical-TFETs. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 3065-3068	2.9	19
265	Room-Temperature Graphene-Nanoribbon Tunneling Field-Effect Transistors. <i>Npj 2D Materials and Applications</i> , 2019 , 3,	8.8	18
264	Empirical tight binding parameters for GaAs and MgO with explicit basis through DFT mapping. <i>Journal of Computational Electronics</i> , 2013 , 12, 56-60	1.8	18
263	Electric field reduced charging energies and two-electron bound excited states of single donors in silicon. <i>Physical Review B</i> , 2011 , 84,	3.3	18
262	Full-band and atomistic simulation of realistic 40 nm InAs HEMT 2008 ,		18
261	BEtaker probes for dissipative phonon quantum transport in semiconductor nanostructures. <i>Applied Physics Letters</i> , 2016 , 108, 113107	3.4	18
260	Design Rules for High Performance Tunnel Transistors From 2-D Materials. <i>IEEE Journal of the Electron Devices Society</i> , 2016 , 4, 260-265	2.3	17
259	Control of interlayer physics in 2H transition metal dichalcogenides. <i>Journal of Applied Physics</i> , 2017 , 122, 224302	2.5	17
258	Design, fabrication, and analysis of p-channel arsenide/antimonide hetero-junction tunnel transistors. <i>Journal of Applied Physics</i> , 2014 , 115, 044502	2.5	17
257	Coherent electron transport by adiabatic passage in an imperfect donor chain. <i>Physical Review B</i> , 2010 , 82,	3.3	17
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255	Generation and intensity-correlation measurements of the real Gaussian field. <i>Physical Review A</i> , 1990 , 41, 6376-6384	2.6	17
254	Grain-Boundary Resistance in Copper Interconnects: From an Atomistic Model to a Neural Network. <i>Physical Review Applied</i> , 2018 , 9,	4.3	16
253	Brillouin zone unfolding method for effective phonon spectra. <i>Physical Review B</i> , 2014 , 90,	3.3	16
252	Atomistic modeling of metallic nanowires in silicon. <i>Nanoscale</i> , 2013 , 5, 8666-74	7.7	16
251	Intrinsic Reliability Improvement in Biaxially Strained SiGe p-MOSFETs. <i>IEEE Electron Device Letters</i> , 2011 , 32, 255-257	4.4	16

250	Multiscale Metrology and Optimization of Ultra-Scaled InAs Quantum Well FETs. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 1963-1971	2.9	16
249	Multiband transmission calculations for nanowires using an optimized renormalization method. <i>Physical Review B</i> , 2008 , 77,	3.3	16
248	Non-equilibrium Green's function (NEGF) simulation of metallic carbon nanotubes including vacancy defects. <i>Journal of Computational Electronics</i> , 2007 , 6, 317-320	1.8	16
247	Scalable GaSb/InAs Tunnel FETs With Nonuniform Body Thickness. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 96-101	2.9	15
246	Spin-lattice relaxation times of single donors and donor clusters in silicon. <i>Physical Review Letters</i> , 2014 , 113, 246406	7.4	15
245	Performance analysis of ultra-scaled InAs HEMTs 2009 ,		15
244	Valley splitting in finite barrier quantum wells. <i>Physical Review B</i> , 2008 , 77,	3.3	15
243	Quantum and Semi-Classical Transport in NEMO 1-D. <i>Journal of Computational Electronics</i> , 2003 , 2, 177-188		15
242	Strain effects in large-scale atomistic quantum dot simulations. <i>Physica Status Solidi (B): Basic Research</i> , 2003 , 239, 71-79	1.3	15
241	Conduction-band tight-binding description for Si applied to P donors. <i>Physical Review B</i> , 2005 , 72,	3.3	15
240	Elastic and inelastic scattering in quantum dots in the Coulomb-blockade regime. <i>Physical Review B</i> , 1994 , 50, 5484-5496	3.3	15
239	Incoherent transport in NEMOS: realistic and efficient scattering on phonons. <i>Journal of Computational Electronics</i> , 2016 , 15, 1123-1129	1.8	14
238	Design and Simulation of GaSb/InAs 2D Transmission-Enhanced Tunneling FETs. <i>IEEE Electron Device Letters</i> , 2016 , 37, 107-110	4.4	14
237	MoS for Enhanced Electrical Performance of Ultrathin Copper Films. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 28345-28351	9.5	14
236	Effects of interface disorder on valley splitting in SiGe/Si/SiGe quantum wells. <i>Applied Physics Letters</i> , 2012 , 100, 103502	3.4	14
235	Distributed non-equilibrium Green's function algorithms for the simulation of nanoelectronic devices with scattering. <i>Journal of Applied Physics</i> , 2011 , 110, 043713	2.5	14
234	Transport of spin qubits with donor chains under realistic experimental conditions. <i>Physical Review B</i> , 2016 , 94,	3.3	14
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