

Massimo Fischetti

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.

193
papers

10,632
citations

50
h-index

100
g-index

225
ext. papers

11,915
ext. citations

2.8
avg, IF

6.35
L-index

#	Paper	IF	Citations
193	3-D Full-Band Monte Carlo Simulation of Hot-Electron Energy Distributions in Gate-All-Around Si Nanowire MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2021 , 68, 2556-2563	2.9	4
192	Limitations of ab initio methods to predict the electronic-transport properties of two-dimensional semiconductors: the computational example of 2H-phase transition metal dichalcogenides. <i>Journal of Computational Electronics</i> , 2021 , 20, 49-59	1.8	9
191	Quantum transport simulation of graphene-nanoribbon field-effect transistors with defects. <i>Journal of Computational Electronics</i> , 2021 , 20, 21-37	1.8	2
190	Monte Carlo analysis of phosphorene nanotransistors. <i>Journal of Computational Electronics</i> , 2021 , 20, 60-69	1.8	0
189	Master-Equation Study of Quantum Transport in Realistic Semiconductor Devices Including Electron-Phonon and Surface-Roughness Scattering. <i>Physical Review Applied</i> , 2020 , 13,	4.3	6
188	Channel Length Scaling Limit for LDMOS Field-Effect Transistors: Semi-classical and Quantum Analysis 2020 ,		2
187	Real-time ab initio simulation of inelastic electron scattering using the exact, density functional, and alternative approaches. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 8616-8624	3.6	4
186	Electronic Transport Properties of Silicene Determined from First Principles. <i>Materials</i> , 2019 , 12,	3.5	11
185	Scalable atomistic simulations of quantum electron transport using empirical pseudopotentials. <i>Computer Physics Communications</i> , 2019 , 244, 156-169	4.2	12
184	Hot electrons in Si lose energy mostly to optical phonons—Truth or myth?. <i>Applied Physics Letters</i> , 2019 , 114, 222104	3.4	9
183	Electron Transport Properties of Al _x Ga _{1-x} N/GaN Transistors Based on First-Principles Calculations and Boltzmann-Equation Monte Carlo Simulations. <i>Physical Review Applied</i> , 2019 , 11,	4.3	11
182	Theoretical study of scattering in graphene ribbons in the presence of structural and atomistic edge roughness. <i>Physical Review Materials</i> , 2019 , 3,	3.2	6
181	First-principles Study of the Electron and Hole Mobility in Silicene 2019 ,		1
180	Monte Carlo Study of Electronic Transport in Monolayer InSe. <i>Materials</i> , 2019 , 12,	3.5	9
179	Understanding the Average Electron-Hole Pair-Creation Energy in Silicon and Germanium Based on Full-Band Monte Carlo Simulations. <i>IEEE Transactions on Nuclear Science</i> , 2019 , 66, 444-451	1.7	10
178	Superconductivity induced by flexural modes in non- \mathbb{C}_2 -symmetric Dirac-like two-dimensional materials: A theoretical study for silicene and germanene. <i>Physical Review B</i> , 2018 , 97,	3.3	1
177	Monte-Carlo study of electronic transport in non- \mathbb{C}_2 -symmetric two-dimensional materials: Silicene and germanene. <i>Journal of Applied Physics</i> , 2018 , 124, 044306	2.5	15

176	Simulation of Quantum Current in Double Gate MOSFETs: Vortices in Electron Transport 2018 ,		1
175	Theoretical studies of electronic transport in monolayer and bilayer phosphorene: A critical overview. <i>Physical Review B</i> , 2018 , 98,	3.3	43
174	Imperfect two-dimensional topological insulator field-effect transistors. <i>Nature Communications</i> , 2017 , 8, 14184	17.4	49
173	Theoretical simulation of negative differential transconductance in lateral quantum well nMOS devices. <i>Journal of Applied Physics</i> , 2017 , 121, 044501	2.5	6
172	Theoretical Study of Ballistic Transport in Silicon Nanowire and Graphene Nanoribbon Field-Effect Transistors Using Empirical Pseudopotentials. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 2758-2764 ^{2.9}		18
171	Stannene: A Likely 2D Topological Insulator. <i>Series in Materials Science and Engineering</i> , 2016 , 379-408		
170	Mermin-Wagner theorem, flexural modes, and degraded carrier mobility in two-dimensional crystals with broken horizontal mirror symmetry. <i>Physical Review B</i> , 2016 , 93,	3.3	55
169	Theoretical study of electron transport in silicene and germanene using full-band Monte Carlo simulations 2016 ,		4
168	Pseudopotential-based electron quantum transport: Theoretical formulation and application to nanometer-scale silicon nanowire transistors. <i>Journal of Applied Physics</i> , 2016 , 119, 035701	2.5	18
167	Energies of the X- and L-valleys in In _{0.53} Ga _{0.47} As from electronic structure calculations. <i>Journal of Applied Physics</i> , 2016 , 119, 055707	2.5	4
166	Inter-ribbon tunneling in graphene: An atomistic Bardeen approach. <i>Journal of Applied Physics</i> , 2016 , 119, 214306	2.5	7
165	Dielectric Properties of Semiconductors. <i>Graduate Texts in Physics</i> , 2016 , 223-251	0.3	1
164	Generalities About Scattering in Semiconductors. <i>Graduate Texts in Physics</i> , 2016 , 255-268	0.3	
163	Electron-Phonon Interactions. <i>Graduate Texts in Physics</i> , 2016 , 269-314	0.3	
162	Coulomb Interactions Among Free Carriers. <i>Graduate Texts in Physics</i> , 2016 , 327-349	0.3	
161	Solution Methods for Semiclassical Transport. <i>Graduate Texts in Physics</i> , 2016 , 407-436	0.3	
160	The Electronic Structure of Crystals: Computational Methods. <i>Graduate Texts in Physics</i> , 2016 , 71-97	0.3	
159	Scattering with Ionized Impurities. <i>Graduate Texts in Physics</i> , 2016 , 315-325	0.3	2

158	Overview of Quantum-Transport Formalisms. <i>Graduate Texts in Physics</i> , 2016 , 361-380	0.3	1
157	* Electronic Structure of Low-Dimensionality Systems. <i>Graduate Texts in Physics</i> , 2016 , 111-162	0.3	2
156	Advanced Physics of Electron Transport in Semiconductors and Nanostructures. <i>Graduate Texts in Physics</i> , 2016 ,	0.3	36
155	Microscopic dielectric permittivities of graphene nanoribbons and graphene. <i>Physical Review B</i> , 2016 , 94,	3.3	24
154	Ab initio study of the electronic properties and thermodynamic stability of supported and functionalized two-dimensional Sn films. <i>Physical Review B</i> , 2015 , 91,	3.3	28
153	Deformation potentials for band-to-band tunneling in silicon and germanium from first principles. <i>Applied Physics Letters</i> , 2015 , 106, 013505	3.4	20
152	Modeling of inter-ribbon tunneling in graphene 2015 ,		1
151	Calculation of electron-phonon interaction strength from first principles in graphene and silicon 2014 ,		2
150	Calculation of room temperature conductivity and mobility in tin-based topological insulator nanoribbons. <i>Journal of Applied Physics</i> , 2014 , 116, 173707	2.5	13
149	Determining bound states in a semiconductor device with contacts using a nonlinear eigenvalue solver. <i>Journal of Computational Electronics</i> , 2014 , 13, 753-762	1.8	3
148	Theoretical analysis of high-field transport in graphene on a substrate. <i>Journal of Applied Physics</i> , 2014 , 116, 034507	2.5	33
147	Intrinsic broadening of the mobility spectrum of bulk n-type GaAs. <i>New Journal of Physics</i> , 2014 , 16, 113033	2.5	6
146	Response to [Comment on [Theoretical analysis of high-field transport in graphene on a substrate] [J. Appl. Phys. 116, 236101 (2014)]. <i>Journal of Applied Physics</i> , 2014 , 116, 236102	2.5	
145	Depression of the normal-superfluid transition temperature in gated bilayer graphene. <i>Journal of Applied Physics</i> , 2014 , 115, 163711	2.5	6
144	2014 ,		2
143	Theory of remote phonon scattering in top-gated single-layer graphene. <i>Physical Review B</i> , 2013 , 88,	3.3	19
142	Interfacial graphene growth in the Ni/SiO ₂ system using pulsed laser deposition. <i>Applied Physics Letters</i> , 2013 , 103, 134102	3.4	17
141	Theoretical Study of the Gate Leakage Current in Sub-10-nm Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 3862-3869	2.9	22

140	Mobility enhancement and temperature dependence in top-gated single-layer MoS ₂ . <i>Physical Review B</i> , 2013 , 88,	3.3	89
139	Pseudopotential-based studies of electron transport in graphene and graphene nanoribbons. <i>Journal of Physics Condensed Matter</i> , 2013 , 25, 473202	1.8	47
138	Figure of merit for and identification of sub-60 mV/decade devices. <i>Applied Physics Letters</i> , 2013 , 102, 013510	3.4	72
137	Top oxide thickness dependence of remote phonon and charged impurity scattering in top-gated graphene. <i>Applied Physics Letters</i> , 2013 , 102, 183506	3.4	11
136	Signatures of dynamic screening in interfacial thermal transport of graphene. <i>Physical Review B</i> , 2013 , 87,	3.3	18
135	Structural, electronic, and transport properties of silicane nanoribbons. <i>Physical Review B</i> , 2012 , 86,	3.3	28
134	Fundamental limitations of hot-carrier solar cells. <i>Physical Review B</i> , 2012 , 86,	3.3	28
133	Charged impurity scattering in top-gated graphene nanostructures. <i>Physical Review B</i> , 2012 , 86,	3.3	23
132	Theory of interfacial plasmon-phonon scattering in supported graphene. <i>Physical Review B</i> , 2012 , 86,	3.3	56
131	One-flux theory of saturated drain current in nanoscale transistors. <i>Solid-State Electronics</i> , 2012 , 78, 1151-1170	1	1
130	Thickness and temperature dependence of the leakage current in hafnium-based Si SOI MOSFETs. <i>Microelectronics Reliability</i> , 2012 , 52, 2907-2913	1.2	14
129	Electronic and transport properties of armchair and zigzag sp ³ -hybridized silicane nanoribbons 2012 ,		1
128	Generalized phonon-assisted Zener tunneling in indirect semiconductors with non-uniform electric fields: A rigorous approach. <i>Journal of Applied Physics</i> , 2011 , 109, 124503	2.5	42
127	Empirical pseudopotential calculations of the band structure and ballistic conductance of strained [001], [110], and [111] silicon nanowires. <i>Journal of Applied Physics</i> , 2011 , 110, 033716	2.5	11
126	An empirical pseudopotential approach to surface and line-edge roughness scattering in nanostructures: Application to Si thin films and nanowires and to graphene nanoribbons. <i>Journal of Applied Physics</i> , 2011 , 110, 083713	2.5	22
125	Two-dimensional quantum mechanical modeling of band-to-band tunneling in indirect semiconductors 2011 ,		19
124	Impact of field-induced quantum confinement in tunneling field-effect devices. <i>Applied Physics Letters</i> , 2011 , 98, 143503	3.4	89
123	Field induced quantum confinement in Indirect Semiconductors: Quantum mechanical and modified semiclassical model 2011 ,		10

122	Si-based tunnel field-effect transistors for low-power nano-electronics 2011 ,		5
121	Semiclassical and Quantum Electronic Transport in Nanometer-Scale Structures: Empirical Pseudopotential Band Structure, Monte Carlo Simulations and Pauli Master Equation 2011 , 183-247		10
120	Calculation of the electron mobility in III-V inversion layers with high- ϵ dielectrics. <i>Journal of Applied Physics</i> , 2010 , 108, 103705	2.5	26
119	(Invited) Scaling FETs to 10 nm: Coulomb Effects, Source Starvation, and Virtual Source. <i>ECS Transactions</i> , 2010 , 28, 15-26	1	3
118	Electronic band structure calculations for biaxially strained Si, Ge, and III-V semiconductors. <i>Journal of Applied Physics</i> , 2010 , 108, 013710	2.5	77
117	Theory of hole mobility in strained Ge and III-V p-channel inversion layers with high- ϵ insulators. <i>Journal of Applied Physics</i> , 2010 , 108, 123713	2.5	14
116	Modeling the capacitance-voltage response of In _{0.53} Ga _{0.47} As metal-oxide-semiconductor structures: Charge quantization and nonparabolic corrections. <i>Applied Physics Letters</i> , 2010 , 96, 213514	3.4	23
115	Backscattering coefficient in MOSFETs from an extended one-flux theory 2009 ,		1
114	Scaling MOSFETs to 10 nm: Coulomb effects, source starvation, and virtual source model. <i>Journal of Computational Electronics</i> , 2009 , 8, 60-77	1.8	55
113	Anatomy of Carrier Backscattering in Silicon Nanowire Transistors 2009 ,		4
112	Scaling MOSFETs to 10 nm: Coulomb Effects, Source Starvation, and Virtual Source 2009 ,		7
111	Physical modeling of strain-dependent hole mobility in Ge p-channel inversion layers. <i>Journal of Applied Physics</i> , 2009 , 106, 083704	2.5	28
110	Calculation of Hole Mobility in Ge and III-V p-Channels 2009 ,		3
109	Empirical Pseudopotential Calculation of Band Structure and Deformation Potentials of Biaxially Strained Semiconductors 2009 ,		1
108	Dissipative Quantum Transport using the Pauli Master Equation 2009 ,		1
107	Simulation of Silicon Nanowire Transistors Using Boltzmann Transport Equation Under Relaxation Time Approximation. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 727-736	2.9	69
106	Theoretical Study of Carrier Transport in Silicon Nanowire Transistors Based on the Multisubband Boltzmann Transport Equation. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 2886-2897	2.9	37
105	Technology development & design for 22 nm InGaAs/InP-channel MOSFETs 2008 ,		4

104	Differential conductance fluctuations in silicon nanowire transistors caused by quasiballistic transport and scattering induced intersubband transitions. <i>Applied Physics Letters</i> , 2008 , 92, 082103	3.4	12
103	Self-consistent calculation for valence subband structure and hole mobility in p-channel inversion layers. <i>Journal of Computational Electronics</i> , 2008 , 7, 176-180	1.8	10
102	Study of performance and leakage currents in nanometer-scale bulk, SOI and double-gate MOSFETs. <i>Journal of Computational Electronics</i> , 2008 , 7, 24-27	1.8	3
101	Remote Phonon Scattering in Si and Ge with SiO ₂ and HfO ₂ Insulators: Does the Electron Mobility Determine Short Channel Performance?. <i>Japanese Journal of Applied Physics</i> , 2007 , 46, 3265-3272	1.4	6
100	Simulation of Electron Transport in High-Mobility MOSFETs: Density of States Bottleneck and Source Starvation 2007 ,		66
99	Modeling of electron mobility in gated silicon nanowires at room temperature: Surface roughness scattering, dielectric screening, and band nonparabolicity. <i>Journal of Applied Physics</i> , 2007 , 102, 083715	2.5	253
98	Modeling of Surface-Roughness Scattering in Ultrathin-Body SOI MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2191-2203	2.9	121
97	. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2116-2136	2.9	84
96	Modeling p-channel SiGe MOSFETs by taking into account the band-structure and the size quantization effects self-consistently. <i>Journal of Computational Electronics</i> , 2007 , 5, 435-438	1.8	2
95	Electron mobility in silicon and germanium inversion layers: The role of remote phonon scattering. <i>Journal of Computational Electronics</i> , 2007 , 6, 81-84	1.8	8
94	Surface Roughness Scattering in Ultrathin-Body SOI MOSFETs 2007 , 61-64		
93	Hybrid-orientation technology (HOT): opportunities and challenges. <i>IEEE Transactions on Electron Devices</i> , 2006 , 53, 965-978	2.9	131
92	Self-consistent full band two-dimensional Monte Carlo two-dimensional Poisson device solver for modeling SiGe p-channel devices. <i>Journal of Vacuum Science & Technology B</i> , 2006 , 24, 1997		1
91	Direct and heterodyne detection of microwaves in a metallic single wall carbon nanotube. <i>Applied Physics Letters</i> , 2006 , 89, 083502	3.4	19
90	Silicon CMOS devices beyond scaling. <i>IBM Journal of Research and Development</i> , 2006 , 50, 339-361	2.5	282
89	Hole transport in p-channel Si MOSFETs. <i>Microelectronics Journal</i> , 2005 , 36, 323-326	1.8	1
88	Band-Structure and Quantum Effects on Hole Transport in p-MOSFETs. <i>Journal of Computational Electronics</i> , 2005 , 4, 27-30	1.8	4
87	Analysis of quantum ballistic electron transport in ultrasmall silicon devices including space-charge and geometric effects. <i>Journal of Applied Physics</i> , 2004 , 95, 5545-5582	2.5	85

86	Thirty Years of Monte Carlo Simulations of Electronic Transport in Semiconductors: Their Relevance to Science and Mainstream VLSI Technology. <i>Journal of Computational Electronics</i> , 2004 , 3, 287-293	1.8	13
85	Scaling MOSFETs to the Limit: A Physicists's Perspective. <i>Journal of Computational Electronics</i> , 2003 , 2, 73-79	1.8	22
84	Does Circulation in Individual Current States Survive in the Total Current Density?. <i>Journal of Computational Electronics</i> , 2003 , 2, 105-108	1.8	2
83	Six-band k?p calculation of the hole mobility in silicon inversion layers: Dependence on surface orientation, strain, and silicon thickness. <i>Journal of Applied Physics</i> , 2003 , 94, 1079-1095	2.5	386
82	Hot-carrier charge trapping and trap generation in HfO2 and Al2O3 field-effect transistors. <i>Journal of Applied Physics</i> , 2003 , 94, 1728-1737	2.5	45
81	Remote Coulomb scattering in metaloxide semiconductor field effect transistors: Screening by electrons in the gate. <i>Applied Physics Letters</i> , 2003 , 83, 4848-4850	3.4	41
80	Charge trapping related threshold voltage instabilities in high permittivity gate dielectric stacks. <i>Journal of Applied Physics</i> , 2003 , 93, 9298-9303	2.5	248
79	Comment on Unified compact theory of tunneling gate current in metaloxide semiconductor structures: Quantum and image force barrier lowering[J. Appl. Phys. 92, 3724 (2002)]. <i>Journal of Applied Physics</i> , 2003 , 93, 3123-3124	2.5	1
78	Ballistic FET modeling using QDAME: quantum device analysis by modal evaluation. <i>IEEE Nanotechnology Magazine</i> , 2002 , 1, 255-259	2.6	36
77	On the enhanced electron mobility in strained-silicon inversion layers. <i>Journal of Applied Physics</i> , 2002 , 92, 7320-7324	2.5	179
76	Effective electron mobility in Si inversion layers in metaloxide semiconductor systems with a high-insulator: The role of remote phonon scattering. <i>Journal of Applied Physics</i> , 2001 , 90, 4587-4608	2.5	588
75	Why hot carrier emission based timing probes will work for 50 nm, 1V CMOS technologies. <i>Microelectronics Reliability</i> , 2001 , 41, 1465-1470	1.2	7
74	Monte Carlo simulation of double-gate silicon-on-insulator inversion layers: The role of volume inversion. <i>Journal of Applied Physics</i> , 2001 , 89, 5478-5487	2.5	116
73	Long-range Coulomb interactions in small Si devices. Part II. Effective electron mobility in thin-oxide structures. <i>Journal of Applied Physics</i> , 2001 , 89, 1232-1250	2.5	134
72	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
71	Long-range Coulomb interactions in small Si devices. Part I: Performance and reliability. <i>Journal of Applied Physics</i> , 2001 , 89, 1205-1231	2.5	138
70	Electrical characterization of Al2O3 n-channel MOSFETs with aluminum gates. <i>IEEE Electron Device Letters</i> , 2001 , 22, 490-492	4.4	15
69	Performance degradation of small silicon devices caused by long-range Coulomb interactions. <i>Applied Physics Letters</i> , 2000 , 76, 2277-2279	3.4	27

68	Master-equation approach to the study of electronic transport in small semiconductor devices. <i>Physical Review B</i> , 1999 , 59, 4901-4917	3.3	98
67	Comment on [Influence of the doping element on the electron mobility in n silicon [J. Appl. Phys. 83, 3096 (1998)]. <i>Journal of Applied Physics</i> , 1999 , 85, 7984-7985	2.5	10
66	Theory of electron transport in small semiconductor devices using the Pauli master equation. <i>Journal of Applied Physics</i> , 1998 , 83, 270-291	2.5	88
65	Monte Carlo and hydrodynamic simulation of a one dimensional n+ ? n ? n+ silicon diode. <i>VLSI Design</i> , 1998 , 6, 247-250		15
64	SEMICONDUCTOR DEVICE PHYSICS AND THE MODELING OF SMALL SEMICONDUCTOR DEVICES 1997 , 114-144		0
63	Hole mobility improvement in silicon-on-insulator and bulk silicon transistors using local strain 1997 ,		17
62	Light emission during direct and Fowler-Nordheim tunneling in ultra thin MOS tunnel junctions. <i>Microelectronic Engineering</i> , 1997 , 36, 103-106	2.5	33
61	Full-band-structure theory of high-field transport and impact ionization of electrons and holes in Ge, Si, and GaAs. <i>Journal of Technology Computer Aided Design TCAD</i> , 1996 , 1-50		15
60	Band structure, deformation potentials, and carrier mobility in strained Si, Ge, and SiGe alloys. <i>Journal of Applied Physics</i> , 1996 , 80, 2234-2252	2.5	1147
59	Monte Carlo Simulation of High-Energy Electron Transport in Silicon: Is There a Short-Cut to Happiness? 1996 , 475-480		1
58	Understanding hot-electron transport in silicon devices: Is there a shortcut?. <i>Journal of Applied Physics</i> , 1995 , 78, 1058-1087	2.5	176
57	Polarization analysis of hot-carrier light emission in silicon. <i>Semiconductor Science and Technology</i> , 1994 , 9, 674-676	1.8	28
56	. <i>IEEE Transactions on Electron Devices</i> , 1994 , 41, 1646-1654	2.9	57
55	. <i>IEEE Transactions on Electron Devices</i> , 1994 , 41, 1680-1683	2.9	2
54	Monte Carlo study of electron transport in silicon inversion layers. <i>Physical Review B</i> , 1993 , 48, 2244-2274	3.3	379
53	Impact ionization in silicon. <i>Applied Physics Letters</i> , 1993 , 62, 3339-3341	3.4	132
52	Monte Carlo simulations of p- and n-channel dual-gate Si MOSFET's at the limits of scaling. <i>IEEE Transactions on Electron Devices</i> , 1993 , 40, 2103	2.9	14
51	Numerical modeling of advanced semiconductor devices. <i>IBM Journal of Research and Development</i> , 1992 , 36, 208-232	2.5	14

50	Monte Carlo calculations of laser-induced free-electron heating in SiO ₂ 1991 ,		3
49	. <i>IEEE Transactions on Electron Devices</i> , 1991 , 38, 634-649	2.9	447
48	. <i>IEEE Transactions on Electron Devices</i> , 1991 , 38, 650-660	2.9	115
47	Coulombic and neutral trapping centers in silicon dioxide. <i>Physical Review B</i> , 1991 , 43, 1471-1486	3.3	72
46	Theory and Calculation of the Deformation Potential Electron-Phonon Scattering Rates in Semiconductors 1991 , 123-160		29
45	Effect of the electron-plasmon interaction on the electron mobility in silicon. <i>Physical Review B</i> , 1991 , 44, 5527-5534	3.3	85
44	The DAMOCLES Monte Carlo Device Simulation Program 1991 , 87-92		2
43	Numerical Aspects and Implementation of the Damocles Monte Carlo Device Simulation Program 1991 , 1-26		16
42	The use of simulation in semiconductor technology development. <i>Solid-State Electronics</i> , 1990 , 33, 591-623	2.2	22
41	Ballistic hot-electron transistors. <i>IBM Journal of Research and Development</i> , 1990 , 34, 530-549	2.5	58
40	Soft-x-ray-induced core-level photoemission as a probe of hot-electron dynamics in SiO ₂ . <i>Physical Review Letters</i> , 1990 , 65, 1937-1940	7.4	23
39	Ballistic Electron Transport in Hot Electron Transistors. <i>Springer Series in Electrophysics</i> , 1990 , 271-320		6
38	Monte Carlo analysis of semiconductor devices: The DAMOCLES program. <i>IBM Journal of Research and Development</i> , 1990 , 34, 466-494	2.5	116
37	Coulombic and neutral electron trapping centers in SiO ₂ . <i>Applied Surface Science</i> , 1989 , 39, 420-428	6.7	8
36	The physics of hot-electron degradation of Si MOSFET's: Can we understand it?. <i>Applied Surface Science</i> , 1989 , 39, 578-596	6.7	38
35	Monte Carlo simulation of hot-carrier transport in real semiconductor devices. <i>Solid-State Electronics</i> , 1989 , 32, 1723-1729	1.7	14
34	Hot electrons in SiO ₂ : ballistic to steady-state transport. <i>Solid-State Electronics</i> , 1988 , 31, 629-636	1.7	18
33	Monte Carlo analysis of electron transport in small semiconductor devices including band-structure and space-charge effects. <i>Physical Review B</i> , 1988 , 38, 9721-9745	3.3	723

32	Monte-Carlo simulation of submicrometer Si n-MOSFETs at 77 and 300 K. <i>IEEE Electron Device Letters</i> , 1988 , 9, 467-469	4.4	87
31	Vacuum emission of hot electrons from silicon dioxide at low temperatures. <i>Journal of Applied Physics</i> , 1988 , 64, 4683-4691	2.5	37
30	Hot Electron Transport in Silicon Dioxide 1988 , 509-518		1
29	Hot Electrons in SiO ₂ : Ballistic and Steady-State Transport 1988 , 375-389		3
28	Electron avalanche injection on 10-nm dielectric films. <i>Journal of Applied Physics</i> , 1987 , 61, 1910-1915	2.5	9
27	Ballistic electron transport in thin silicon dioxide films. <i>Physical Review B</i> , 1987 , 35, 4404-4415	3.3	90
26	Electron interference effects in quantum wells: Observation of bound and resonant states. <i>Physical Review Letters</i> , 1987 , 58, 816-819	7.4	86
25	Hot electrons in silicon dioxide: Ballistic to steady-state transport. <i>Applied Surface Science</i> , 1987 , 30, 2786-2797	7.4	21
24	Electron heating studies in silicon dioxide: Low fields and thick films. <i>Journal of Applied Physics</i> , 1986 , 60, 1719-1726	2.5	40
23	SiO ₂ -induced substrate current and its relation to positive charge in field-effect transistors. <i>Journal of Applied Physics</i> , 1986 , 59, 824-832	2.5	80
22	Direct observation of ballistic electrons in silicon dioxide. <i>Physical Review Letters</i> , 1986 , 57, 3213-3216	7.4	40
21	Direct observation of the threshold for electron heating in silicon dioxide. <i>Physical Review Letters</i> , 1986 , 56, 1284-1286	7.4	44
20	Theory of high-field electron transport in silicon dioxide. <i>Physical Review B</i> , 1985 , 31, 8124-8142	3.3	232
19	Quantum Monte Carlo simulation of high-field electron transport: An application to silicon dioxide. <i>Physical Review Letters</i> , 1985 , 55, 2475-2478	7.4	52
18	Investigation of the SiO ₂ -induced substrate current in silicon field-effect transistors. <i>Journal of Applied Physics</i> , 1985 , 57, 443-452	2.5	65
17	Model for the generation of positive charge at the Si-SiO ₂ interface based on hot-hole injection from the anode. <i>Physical Review B</i> , 1985 , 31, 2099-2113	3.3	120
16	Hot-electron-induced defects at the Si-SiO ₂ interface at high fields at 295 and 77 K. <i>Journal of Applied Physics</i> , 1985 , 57, 2854-2859	2.5	41
15	The effect of gate metal and SiO ₂ thickness on the generation of donor states at the Si-SiO ₂ interface. <i>Journal of Applied Physics</i> , 1985 , 57, 418-425	2.5	105

14	Direct measurement of the energy distribution of hot electrons in silicon dioxide. <i>Journal of Applied Physics</i> , 1985 , 58, 1302-1313	2.5	110
13	Generation of positive charge in silicon dioxide during avalanche and tunnel electron injection. <i>Journal of Applied Physics</i> , 1985 , 57, 2860-2879	2.5	152
12	Temperature dependence of the current in SiO ₂ in the high field tunneling regime. <i>Journal of Applied Physics</i> , 1984 , 55, 4322-4329	2.5	17
11	The importance of the anode field in controlling the generation rate of the donor states at the Si/SiO ₂ interface. <i>Journal of Applied Physics</i> , 1984 , 56, 575-577	2.5	43
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9	Slow and fast states induced by hot electrons at Si-SiO ₂ interface. <i>Journal of Applied Physics</i> , 1982 , 53, 3136-3144	2.5	66
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