

Mark A Reed

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210
papers

19,616
citations

55
h-index

139
g-index

241
ext. papers

21,121
ext. citations

7.7
avg, IF

6.48
L-index

#	Paper	IF	Citations
210	Conductance of a Molecular Junction. <i>Science</i> , 1997 , 278, 252-254	33.3	2958
209	Large On-Off Ratios and Negative Differential Resistance in a Molecular Electronic Device. <i>Science</i> , 1999 , 286, 1550-1552	33.3	2173
208	Label-free immunodetection with CMOS-compatible semiconducting nanowires. <i>Nature</i> , 2007 , 445, 519-524	32.4	1105
207	Observation of discrete electronic states in a zero-dimensional semiconductor nanostructure. <i>Physical Review Letters</i> , 1988 , 60, 535-537	7.4	852
206	Analysis of yeast protein kinases using protein chips. <i>Nature Genetics</i> , 2000 , 26, 283-9	36.3	734
205	Observation of molecular orbital gating. <i>Nature</i> , 2009 , 462, 1039-43	50.4	617
204	Importance of the Debye screening length on nanowire field effect transistor sensors. <i>Nano Letters</i> , 2007 , 7, 3405-9	11.5	593
203	Mechanism of electron conduction in self-assembled alkanethiol monolayer devices. <i>Physical Review B</i> , 2003 , 68,	3.3	504
202	Molecular random access memory cell. <i>Applied Physics Letters</i> , 2001 , 78, 3735-3737	3.4	499
201	Nanoscale metal/self-assembled monolayer/metal heterostructures. <i>Applied Physics Letters</i> , 1997 , 71, 611-613	3.4	468
200	Room-temperature negative differential resistance in nanoscale molecular junctions. <i>Applied Physics Letters</i> , 2000 , 77, 1224-1226	3.4	441
199	Label-free biomarker detection from whole blood. <i>Nature Nanotechnology</i> , 2010 , 5, 138-42	28.7	433
198	Single molecule electronic devices. <i>Advanced Materials</i> , 2011 , 23, 1583-608	24	380
197	Growth of a single freestanding multiwall carbon nanotube on each nanonickel dot. <i>Applied Physics Letters</i> , 1999 , 75, 1086-1088	3.4	346
196	Inelastic Electron Tunneling Spectroscopy of an Alkanedithiol Self-Assembled Monolayer. <i>Nano Letters</i> , 2004 , 4, 643-646	11.5	335
195	Observation of plasmon propagation, redirection, and fan-out in silver nanowires. <i>Nano Letters</i> , 2006 , 6, 1822-6	11.5	330
194	Quantification of the affinities and kinetics of protein interactions using silicon nanowire biosensors. <i>Nature Nanotechnology</i> , 2012 , 7, 401-7	28.7	273

193	Synthesis and preliminary testing of molecular wires and devices. <i>Chemistry - A European Journal</i> , 2001 , 7, 5118-34	4.8	219
192	Computing with molecules. <i>Scientific American</i> , 2000 , 282, 86-93	0.5	206
191	Increase of electrospray throughput using multiplexed microfabricated sources for the scalable generation of monodisperse droplets. <i>Journal of Aerosol Science</i> , 2006 , 37, 696-714	4.3	202
190	Quantum Dots. <i>Scientific American</i> , 1993 , 268, 118-123	0.5	199
189	Spatial quantization in GaAs/AlGaAs multiple quantum dots. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1986 , 4, 358		190
188	Record high efficiency single-walled carbon nanotube/silicon p-n junction solar cells. <i>Nano Letters</i> , 2013 , 13, 95-9	11.5	177
187	Field-effect reconfigurable nanofluidic ionic diodes. <i>Nature Communications</i> , 2011 , 2, 506	17.4	168
186	Micromolded PDMS planar electrode allows patch clamp electrical recordings from cells. <i>Biosensors and Bioelectronics</i> , 2002 , 17, 597-604	11.8	164
185	Electronic transport of molecular systems. <i>Chemical Physics</i> , 2002 , 281, 127-145	2.3	158
184	Electronic transport through metal-1,4-phenylene diisocyanide-metal junctions. <i>Chemical Physics Letters</i> , 1999 , 313, 741-748	2.5	150
183	Critical Knowledge Gaps in Mass Transport through Single-Digit Nanopores: A Review and Perspective. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 21309-21326	3.8	121
182	Microfabrication of a mechanically controllable break junction in silicon. <i>Applied Physics Letters</i> , 1995 , 67, 1160-1162	3.4	119
181	Semiconducting Nanowire Field-Effect Transistor Biomolecular Sensors. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 3119-3130	2.9	115
180	Comparison of Electronic Transport Characterization Methods for Alkanethiol Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 8742-8750	3.4	115
179	Electron tunnelling in self-assembled monolayers. <i>Reports on Progress in Physics</i> , 2005 , 68, 523-544	14.4	115
178	Quantization effects in the conductance of metallic contacts at room temperature. <i>Physical Review B</i> , 1996 , 53, 1022-1025	3.3	115
177	Elastic and Inelastic Electron Tunneling in Alkane Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 18398-18407	3.4	105
176	Realization of a three-terminal resonant tunneling device: The bipolar quantum resonant tunneling transistor. <i>Applied Physics Letters</i> , 1989 , 54, 1034-1036	3.4	102

175	Electrical characterization of single GaN nanowires. <i>Nanotechnology</i> , 2005 , 16, 2941-2953	3.4	96
174	Optimal signal-to-noise ratio for silicon nanowire biochemical sensors. <i>Applied Physics Letters</i> , 2011 , 98, 264107-2641073	3.4	91
173	Silicon Nanowire Field-Effect Transistors—A Versatile Class of Potentiometric Nanobiosensors. <i>IEEE Access</i> , 2015 , 3, 287-302	3.5	88
172	Current rectification in a single GaN nanowire with a well-defined p-n junction. <i>Applied Physics Letters</i> , 2003 , 83, 1578-1580	3.4	84
171	A nanofluidic ion regulation membrane with aligned cellulose nanofibers. <i>Science Advances</i> , 2019 , 5, eaau4238	4.38	81
170	Improved efficiency of smooth and aligned single walled carbon nanotube/silicon hybrid solar cells. <i>Energy and Environmental Science</i> , 2013 , 6, 879	35.4	81
169	Determination of molecular configuration by debye length modulation. <i>Journal of the American Chemical Society</i> , 2011 , 133, 13886-9	16.4	77
168	Inelastic electron tunneling spectroscopy. <i>Materials Today</i> , 2008 , 11, 46-50	21.8	69
167	Microfluidic system for planar patch clamp electrode arrays. <i>Nano Letters</i> , 2006 , 6, 815-9	11.5	68
166	Label-free electronic detection of the antigen-specific T-cell immune response. <i>Nano Letters</i> , 2008 , 8, 3310-4	11.5	66
165	Visions for a molecular future. <i>Nature Nanotechnology</i> , 2013 , 8, 385-9	28.7	65
164	Voltage gated ion and molecule transport in engineered nanochannels: theory, fabrication and applications. <i>Nanotechnology</i> , 2014 , 25, 122001	3.4	61
163	Direct Observation of Charge Inversion in Divalent Nanofluidic Devices. <i>Nano Letters</i> , 2015 , 15, 5046-51	11.5	58
162	Coherent Tunneling Transport in Molecular Junctions— <i>Journal of Physical Chemistry C</i> , 2010 , 114, 20431-20435	3.0435	58
161	Growth and characterization of aligned carbon nanotubes from patterned nickel nanodots and uniform thin films. <i>Journal of Materials Research</i> , 2001 , 16, 3246-3253	2.5	58
160	Molecular wires, switches, and memories. <i>Annals of the New York Academy of Sciences</i> , 2002 , 960, 69-99	6.5	57
159	Mechanism of electron conduction in self-assembled alkanethiol monolayer devices. <i>Annals of the New York Academy of Sciences</i> , 2003 , 1006, 21-35	6.5	57
158	Placement of conjugated oligomers in an alkanethiol matrix by scanned probe microscope lithography. <i>Applied Physics Letters</i> , 1999 , 75, 624-626	3.4	57

157	Highly specific and sensitive non-enzymatic determination of uric acid in serum and urine by extended gate field effect transistor sensors. <i>Biosensors and Bioelectronics</i> , 2014 , 51, 225-31	11.8	56
156	Resonant tunneling through a double GaAs/AlAs superlattice barrier, single quantum well heterostructure. <i>Applied Physics Letters</i> , 1986 , 49, 158-160	3.4	56
155	Synthesis and testing of new end-functionalized oligomers for molecular electronics. <i>Tetrahedron</i> , 2003 , 59, 8555-8570	2.4	54
154	Spin splitting of single 0D impurity states in semiconductor heterostructure Quantum Wells. <i>Physical Review Letters</i> , 1996 , 76, 1328-1331	7.4	54
153	Electron transport measurements of Schottky barrier inhomogeneities. <i>Applied Physics Letters</i> , 2002 , 80, 1761-1763	3.4	53
152	Liquid fuel microcombustor using microfabricated multiplexed electrospray sources. <i>Proceedings of the Combustion Institute</i> , 2007 , 31, 2239-2246	5.9	52
151	1/f Noise of Silicon Nanowire BioFETs. <i>IEEE Electron Device Letters</i> , 2010 , 31, 615-617	4.4	50
150	Indium oxide nanostructures. <i>Applied Physics A: Materials Science and Processing</i> , 2006 , 85, 233-240	2.6	49
149	Direct, rapid, and label-free detection of enzyme-substrate interactions in physiological buffers using CMOS-compatible nanoribbon sensors. <i>Nano Letters</i> , 2014 , 14, 5315-22	11.5	48
148	Limit of detection of field effect transistor biosensors: Effects of surface modification and size dependence. <i>Applied Physics Letters</i> , 2014 , 104, 084106	3.4	47
147	A nanoelectronic enzyme-linked immunosorbent assay for detection of proteins in physiological solutions. <i>Small</i> , 2010 , 6, 232-8	11	47
146	Size-dependent persistent photocurrent and surface band bending in m-axial GaN nanowires. <i>Physical Review B</i> , 2011 , 84,	3.3	46
145	Suppression of leakage current in Schottky barrier metal oxide semiconductor field-effect transistors. <i>Journal of Applied Physics</i> , 2002 , 91, 757-759	2.5	46
144	Atomic probes: a search for conduction through a single molecule. <i>Nanotechnology</i> , 1996 , 7, 409-411	3.4	45
143	The Electrical Measurement of Molecular Junctions. <i>Annals of the New York Academy of Sciences</i> , 1998 , 852, 133-144	6.5	44
142	Electronic properties of InN nanowires. <i>Applied Physics Letters</i> , 2005 , 87, 253103	3.4	44
141	Observation of the linear stark effect in a single acceptor in Si. <i>Physical Review Letters</i> , 2007 , 98, 096805	7.4	43
140	Nanoelectronics: Fanciful physics or real devices?. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1989 , 7, 1398		43

139	Specific contact resistivity of nanowire devices. <i>Applied Physics Letters</i> , 2006 , 88, 053106	3.4	41
138	Paul trapping of charged particles in aqueous solution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 9326-30	11.5	40
137	Regenerative electronic biosensors using supramolecular approaches. <i>ACS Nano</i> , 2013 , 7, 4014-21	16.7	39
136	Functionalized Polyelectrolytes Assembling on Nano-BioFETs for Biosensing Applications. <i>Advanced Functional Materials</i> , 2015 , 25, 2279-2286	15.6	38
135	Atomic force microscopy study of electron beam written contamination structures. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996 , 14, 54		37
134	Electric field modulation of the membrane potential in solid-state ion channels. <i>Nano Letters</i> , 2012 , 12, 6441-7	11.5	36
133	Electronic transport in self-assembled alkanethiol monolayers. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003 , 19, 117-125	3	36
132	Electrically excited infrared emission from InN nanowire transistors. <i>Nano Letters</i> , 2007 , 7, 2276-80	11.5	35
131	Performance limitations for nanowire/nanoribbon biosensors. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2013 , 5, 629-45	9.2	34
130	Molecular scale electronics: syntheses and testing. <i>Nanotechnology</i> , 1998 , 9, 246-250	3.4	34
129	Resonant tunneling through a HgTe/Hg _{1-x} CdxTe double barrier, single quantum well heterostructure. <i>Applied Physics Letters</i> , 1986 , 49, 1293-1295	3.4	34
128	Microstructure fabrication and transport through quantum dots. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1988 , 6, 302		33
127	Experimental evidence and control of the bulk-mediated intersurface coupling in topological insulator Bi ₂ Te ₂ Se nanoribbons. <i>Physical Review B</i> , 2015 , 91,	3.3	31
126	Electrical characterization of metal-molecule-silicon junctions. <i>Superlattices and Microstructures</i> , 2003 , 33, 217-226	2.8	31
125	Methods for fabricating Ohmic contacts to nanowires and nanotubes. <i>Journal of Vacuum Science & Technology B</i> , 2006 , 24, 231		30
124	Resonant tunneling in a GaAs/AlGaAs barrier/InGaAs quantum well heterostructure. <i>Applied Physics Letters</i> , 1987 , 50, 845-847	3.4	30
123	The effect of Mg doping on GaN nanowires. <i>Nanotechnology</i> , 2006 , 17, 5735-5739	3.4	29
122	Quantitative resonant tunneling spectroscopy: Current-voltage characteristics of precisely characterized resonant tunneling diodes. <i>Applied Physics Letters</i> , 1989 , 54, 1256-1258	3.4	29

121	. <i>IEEE Transactions on Electron Devices</i> , 1989 , 36, 2328-2334	2.9	29
120	Multiplexed SOI BioFETs. <i>Biosensors and Bioelectronics</i> , 2011 , 28, 239-42	11.8	28
119	Recent Advances in Molecular Scale Electronics. <i>Annals of the New York Academy of Sciences</i> , 1998 , 852, 197-204	6.5	28
118	Investigation of parallel conduction in GaAs/ Al _x Ga _{1-x} As modulation-doped structures in the quantum limit. <i>IEEE Journal of Quantum Electronics</i> , 1986 , 22, 1753-1759	2	28
117	Minority carrier lifetime and surface effects in VLS-grown axial p-n junction silicon nanowires. <i>Advanced Materials</i> , 2011 , 23, 4306-11	24	27
116	Electronic memory effects in self-assembled monolayer systems. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003 , 16, 17-23	3	27
115	Prospects for Molecular-Scale Electronics. <i>MRS Bulletin</i> , 2001 , 26, 113-120	3.2	27
114	Electropolymerization on microelectrodes: functionalization technique for selective protein and DNA conjugation. <i>Analytical Chemistry</i> , 2006 , 78, 6340-6	7.8	26
113	A Gd@C single-molecule electret. <i>Nature Nanotechnology</i> , 2020 , 15, 1019-1024	28.7	25
112	Predictive simulations and optimization of nanowire field-effect PSA sensors including screening. <i>Nanotechnology</i> , 2013 , 24, 225503	3.4	24
111	Quantitative probing of surface charges at dielectric-electrolyte interfaces. <i>Lab on A Chip</i> , 2013 , 13, 1431-6	1.6	23
110	Electronic Transport in Molecular Self-Assembled Monolayer Devices. <i>Proceedings of the IEEE</i> , 2005 , 93, 1815-1824	14.3	23
109	Subthreshold and scaling of PtSi Schottky barrier MOSFETs. <i>Superlattices and Microstructures</i> , 2000 , 28, 501-506	2.8	23
108	Novel Silicon Doped Tin Oxide-Carbon Microspheres as Anode Material for Lithium Ion Batteries: The Multiple Effects Exerted by Doped Si. <i>Small</i> , 2017 , 13, 1702614	11	22
107	Temperature dependence of 1/f noise mechanisms in silicon nanowire biochemical field effect transistors. <i>Applied Physics Letters</i> , 2010 , 97, 243501	3.4	22
106	Smartphone-Enabled Colorimetric Trinitrotoluene Detection Using Amine-Trapped Polydimethylsiloxane Membranes. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 14445-14452	9.5	21
105	Resonant tunneling in double-quantum-well triple-barrier heterostructures. <i>Physical Review B</i> , 1996 , 54, 4857-4862	3.3	21
104	Intrinsic charge transport of conjugated organic molecules in electromigrated nanogap junctions. <i>Journal of Applied Physics</i> , 2011 , 109, 102419	2.5	20

103	An RTD/transistor switching block and its possible application in binary and ternary adders. <i>IEEE Transactions on Electron Devices</i> , 1997 , 44, 2149-2153	2.9	20
102	Anharmonic oscillator model of a quantum dot nanostructure. <i>Applied Physics Letters</i> , 1989 , 54, 1997-1999	3.4	20
101	Trapping of sub-100 nm nanoparticles using gigahertz acoustofluidic tweezers for biosensing applications. <i>Nanoscale</i> , 2019 , 11, 14625-14634	7.7	19
100	Photoluminescent determination of charge accumulation in resonant tunneling structures. <i>Physical Review Letters</i> , 1989 , 62, 1207	7.4	19
99	Nanostructure fabrication of zero-dimensional quantum dot diodes. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1988 , 6, 1861		19
98	Resonant transmission in the base/collector junction of a bipolar quantum-well resonant-tunneling transistor. <i>Applied Physics Letters</i> , 1991 , 59, 3413-3415	3.4	18
97	Nanoelectronic Platform for Ultrasensitive Detection of Protein Biomarkers in Serum using DNA Amplification. <i>Analytical Chemistry</i> , 2017 , 89, 11325-11331	7.8	17
96	. <i>IEEE Nanotechnology Magazine</i> , 2011 , 10, 35-43	2.6	16
95	Effect of local strain on single acceptors in Si. <i>Physical Review B</i> , 2007 , 76,	3.3	16
94	Complementary metal oxide semiconductor-compatible silicon nanowire biofield-effect transistors as affinity biosensors. <i>Nanomedicine</i> , 2013 , 8, 1839-51	5.6	15
93	Charge Transfer from Carbon Nanotubes to Silicon in Flexible Carbon Nanotube/Silicon Solar Cells. <i>Small</i> , 2017 , 13, 1702387	11	14
92	A long DNA segment in a linear nanoscale Paul trap. <i>Nanotechnology</i> , 2010 , 21, 015103	3.4	14
91	Intrinsic Electronic Transport through Alkanedithiol Self-Assembled Monolayer. <i>Japanese Journal of Applied Physics</i> , 2005 , 44, 523-529	1.4	14
90	Fabrication of closely spaced quantum dot diodes. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1990 , 8, 1348		14
89	Investigation of the two-dimensional electron gas in HgCdTe by quantum Hall effect measurements. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1986 , 4, 2132-2136	2.9	14
88	Electron-spectroscopic study of vertical In _{1-x} Ga _x As quantum dots. <i>Physical Review B</i> , 1996 , 53, 15727-15737	3.7	13
87	Cellphone-Enabled Microwell-Based Microbead Aggregation Assay for Portable Biomarker Detection. <i>ACS Sensors</i> , 2018 , 3, 432-440	9.2	12
86	Low-dimensional resonant tunnelling and Coulomb blockade: a comparison of fabricated versus impurity confinement. <i>Semiconductor Science and Technology</i> , 1994 , 9, 1919-1924	1.8	12

85	Excited state resonant tunneling in GaAs _{1-x} Al _x Ga _{1-x} As double barrier heterostructures. <i>Superlattices and Microstructures</i> , 1986 , 2, 65-67	2.8	12
84	Electrical characterization of metal-molecule-silicon junctions. <i>Annals of the New York Academy of Sciences</i> , 2003 , 1006, 36-47	6.5	11
83	Continuous Label-Free Electronic Discrimination of T Cells by Activation State. <i>ACS Nano</i> , 2020 , 14, 8646-8657	10.5	10
82	Microfluidic probe: a new tool for integrating microfluidic environments and electronic wafer-probing. <i>Lab on A Chip</i> , 2010 , 10, 123-7	7.2	10
81	Sequential tunneling and spin degeneracy of zero-dimensional states. <i>Physical Review B</i> , 2000 , 62, 8240-8248	9.5	10
80	Tunneling spectroscopic study of finite superlattices. <i>Applied Physics Letters</i> , 1990 , 57, 707-709	3.4	10
79	Investigation of quantum well and tunnel barrier growth by resonant tunneling. <i>Journal of Materials Research</i> , 1986 , 1, 337-342	2.5	10
78	Metal-coated microfluidic channels: An approach to eliminate streaming potential effects in nano biosensors. <i>Biosensors and Bioelectronics</i> , 2017 , 87, 447-452	11.8	9
77	Temperature-dependent thermal conductivity and suppressed Lorenz number in ultrathin gold nanowires. <i>Physical Review B</i> , 2019 , 99,	3.3	8
76	Comparison of laser-ablation and hot-wall chemical vapour deposition techniques for nanowire fabrication. <i>Nanotechnology</i> , 2006 , 17, S246-S252	3.4	7
75	Electron mobility study of hot-wall CVD GaN and InN nanowires. <i>Brazilian Journal of Physics</i> , 2006 , 36, 824-827	1.2	7
74	High magnetic field tunneling transport in a double quantum well-triple barrier resonant tunneling diode. <i>Physica B: Condensed Matter</i> , 1994 , 201, 374-379	2.8	7
73	Electron transport and localization in HgCdTe metal-insulator semiconductor field effect transistors. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 2716-2721	2.9	7
72	Overcoming the sensitivity vs. throughput tradeoff in Coulter counters: A novel side counter design. <i>Biosensors and Bioelectronics</i> , 2020 , 168, 112507	11.8	6
71	Tunable aqueous virtual micropore. <i>Small</i> , 2012 , 8, 907-12	11	6
70	Spatiotemporal control over molecular delivery and cellular encapsulation from electropolymerized micro- and nanopatterned surfaces. <i>Advanced Functional Materials</i> , 2009 , 19, 2888-2895	15.6	6
69	Non-vanishing ponderomotive AC electrophoretic effect for particle trapping. <i>Nanotechnology</i> , 2011 , 22, 245103	3.4	6
68	. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 2813-2819	2.9	6

67	Cross-platform characterization of electron tunneling in molecular self-assembled monolayers. <i>Current Applied Physics</i> , 2005 , 5, 213-217	2.6	6
66	Improved MBE Growth Of InGaAs-InAlAs Heterostructures For High-Performance Device Applications 1989 ,		6
65	Advances in the processing of quantum-coupled devices 1990 ,		6
64	CMOS biosensor devices and applications 2013 ,		5
63	Mapping of near field light and fabrication of complex nanopatterns by diffraction lithography. <i>Nanotechnology</i> , 2012 , 23, 045301	3-4	5
62	Transport spectroscopy of single Pt impurities in silicon using Schottky barrier MOSFETs. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 374125	1.8	5
61	Spectroscopic study of intraminiband and interminiband tunneling in finite superlattices. <i>Physical Review B</i> , 1995 , 51, 10701-10708	3-3	5
60	There Is Plenty of Room Between Two Atom Contacts. <i>Science</i> , 1996 , 272, 1901-1902	33-3	5
59	Quantum-well resonant-tunneling transistors		5
58	Resonant tunneling in HgCdTe heterostructures. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1988 , 6, 2619-2622	2-9	5
57	Quantitative nanoscale field effect sensors. <i>Journal of Experimental Nanoscience</i> , 2014 , 9, 41-50	1-9	4
56	Intrinsic Electronic Conduction Mechanisms in Self-Assembled Monolayers 2006 , 275-300		4
55	Theory of the Fermi-level energy in semiconductor superlattices. <i>Physical Review B</i> , 1991 , 44, 5873-5876	3,3	4
54	Phonon assisted tunneling in lattice-matched and pseudomorphic resonant tunneling diodes. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1990 , 8, 370		4
53	Resonant tunneling in double superlattice barrier heterostructures. <i>Superlattices and Microstructures</i> , 1987 , 3, 111-116	2-8	4
52	Vertical electronic transport in novel semiconductor heterojunction structures. <i>Superlattices and Microstructures</i> , 1988 , 4, 741-747	2-8	4
51	Single ascospore detection for the forecasting of stem rot of canola. <i>Lab on A Chip</i> , 2020 , 20, 3644-3652	7.2	4
50	Enhancing Lithium Insertion with Electrostatic Nanoconfinement in a Lithography Patterned Precision Cell. <i>ACS Nano</i> , 2019 , 13, 8481-8489	16.7	3

49	Inelastic electron tunneling spectroscopy of molecular transport junctions. <i>Journal of the Korean Physical Society</i> , 2014 , 64, 1539-1544	0.6	3
48	Single-Molecule Devices: Single Molecule Electronic Devices (Adv. Mater. 14/2011). <i>Advanced Materials</i> , 2011 , 23, 1576-1576	24	3
47	Controlled III-V semiconductor cluster nucleation and epitaxial growth via electron-beam lithography. <i>Applied Physics Letters</i> , 1995 , 66, 1343-1345	3.4	3
46	Prospects for Semiconductor Quantum Devices. <i>Advances in Chemistry Series</i> , 1994 , 15-42		3
45	Is Resonant Tunneling Transistor a Reality?. <i>Physics Today</i> , 1990 , 43, 132-132	0.9	3
44	Molecular-beam epitaxial growth of AlGaAs/(In,Ga)As resonant tunneling structures. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1987 , 5, 771		3
43	Molecular Electronics 2003 , 123-139		3
42	Sensing the electrical activity of single ion channels with top-down silicon nanoribbons. <i>Nano Futures</i> , 2018 , 2,	3.6	2
41	Calibration methods for silicon nanowire BioFETs 2014 ,		2
40	Guest Editorial Special Issue on Nanowire Transistors: Modeling, Device Design, and Technology. <i>IEEE Nanotechnology Magazine</i> , 2008 , 7, 643-650	2.6	2
39	Semiconductor quantum dot resonant tunnelling spectroscopy. <i>Semiconductor Science and Technology</i> , 1992 , 7, B12-B14	1.8	2
38	Quantization of the hall effect in a 3-dimensional quasiperiodic system. <i>Superlattices and Microstructures</i> , 1987 , 3, 535-538	2.8	2
37	A microfluidic chip with a serpentine channel enabling high-throughput cell separation using surface acoustic waves. <i>Lab on A Chip</i> , 2021 , 21, 4608-4617	7.2	2
36	VOC detection using multimode E-nose composed of bulk acoustic wave resonator and silicon nanowire field effect transistor array 2016 ,		2
35	Molecular Transistors 2014 , 194-226		1
34	2012 ,		1
33	Label-free biomarker detection from whole blood 2010 ,		1
32	Comment on Fabrication of a Molecular Self-Assembled Monolayer Diode Using Nanoimprint Lithography <i>Nano Letters</i> , 2004 , 4, 533-533	11.5	1

31	Large arrays of well-aligned carbon nanotubes 1999 ,		1
30	Molecular Scale Electronics. Critical Nanolithography Issues of Synthesis and Addressing. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 584, 45		1
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