

# Eric M Vogel

## List of Publications by Year in descending order

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153  
papers

8,839  
citations

57758

44  
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43889

91  
g-index

153  
all docs

153  
docs citations

153  
times ranked

11196  
citing authors

#	ARTICLE	IF	CITATIONS
1	Large-Area Graphene Single Crystals Grown by Low-Pressure Chemical Vapor Deposition of Methane on Copper. <i>Journal of the American Chemical Society</i> , 2011, 133, 2816-2819.	13.7	1,161
2	Graphene Films with Large Domain Size by a Two-Step Chemical Vapor Deposition Process. <i>Nano Letters</i> , 2010, 10, 4328-4334.	9.1	896
3	The effect of chemical residues on the physical and electrical properties of chemical vapor deposited graphene transferred to SiO <sub>2</sub> . <i>Applied Physics Letters</i> , 2011, 99, .	3.3	829
4	First-principles study of metal-graphene interfaces. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	358
5	Detection of Ga suboxides and their impact on III-V passivation and Fermi-level pinning. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	250
6	Conformal Al <sub>2</sub> O <sub>3</sub> dielectric layer deposited by atomic layer deposition for graphene-based nanoelectronics. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	245
7	Reducing Extrinsic Performance-Limiting Factors in Graphene Grown by Chemical Vapor Deposition. <i>ACS Nano</i> , 2012, 6, 3224-3229.	14.6	216
8	Controlled Doping of Large-Area Trilayer MoS <sub>2</sub> with Molecular Reductants and Oxidants. <i>Advanced Materials</i> , 2015, 27, 1175-1181.	21.0	183
9	Technology and metrology of new electronic materials and devices. <i>Nature Nanotechnology</i> , 2007, 2, 25-32.	31.5	173
10	Modeled tunnel currents for high dielectric constant dielectrics. <i>IEEE Transactions on Electron Devices</i> , 1998, 45, 1350-1355.	3.0	152
11	Estimating oxide thickness of tunnel oxides down to 1.4 nm using conventional capacitance-voltage measurements on MOS capacitors. <i>IEEE Electron Device Letters</i> , 1999, 20, 179-181.	3.9	147
12	Hebbian Learning in Spiking Neural Networks With Nanocrystalline Silicon TFTs and Memristive Synapses. <i>IEEE Nanotechnology Magazine</i> , 2011, 10, 1066-1073.	2.0	142
13	Half-cycle atomic layer deposition reaction studies of Al <sub>2</sub> O <sub>3</sub> on In <sub>0.2</sub> Ga <sub>0.8</sub> As (100) surfaces. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	138
14	Enhanced Channel Modulation in Dual-Gated Silicon Nanowire Transistors. <i>Nano Letters</i> , 2005, 5, 2519-2523.	9.1	129
15	Flexible MoS <sub>2</sub> Field-Effect Transistors for Gate-Tunable Piezoresistive Strain Sensors. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 12850-12855.	8.0	127
16	Silicon nanowires as enhancement-mode Schottky barrier field-effect transistors. <i>Nanotechnology</i> , 2005, 16, 1482-1485.	2.6	126
17	Interfacial chemistry of oxides on In <sub>x</sub> Ga(1-x)As and implications for MOSFET applications. <i>Current Opinion in Solid State and Materials Science</i> , 2011, 15, 188-207.	11.5	119
18	Effective mobility of single-layer graphene transistors as a function of channel dimensions. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	114

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19	Neural Learning Circuits Utilizing Nano-Crystalline Silicon Transistors and Memristors. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 565-573.	11.3	110
20	Highly Uniform Trilayer Molybdenum Disulfide for Wafer-Scale Device Fabrication. Advanced Functional Materials, 2014, 24, 6389-6400.	14.9	99
21	Limitations of conductance to the measurement of the interface state density of MOS capacitors with tunneling gate dielectrics. IEEE Transactions on Electron Devices, 2000, 47, 601-608.	3.0	98
22	Half-cycle atomic layer deposition reaction studies of Al <sub>2</sub> O <sub>3</sub> on (NH <sub>4</sub> ) <sub>2</sub> S passivated GaAs(100) surfaces. Applied Physics Letters, 2008, 93, .	3.3	94
23	Analysis of leakage currents and impact on off-state power consumption for CMOS technology in the 100-nm regime. IEEE Transactions on Electron Devices, 2000, 47, 1393-1400.	3.0	89
24	Frequency dispersion reduction and bond conversion on n-type GaAs by in situ surface oxide removal and passivation. Applied Physics Letters, 2007, 91, 163512.	3.3	88
25	High Inversion Current in Silicon Nanowire Field Effect Transistors. Nano Letters, 2004, 4, 2197-2201.	9.1	87
26	A potentiometric biosensor for rapid on-site disease diagnostics. Biosensors and Bioelectronics, 2016, 79, 669-678.	10.1	81
27	A comparison of quantum-mechanical capacitance-voltage simulators. IEEE Electron Device Letters, 2001, 22, 35-37.	3.9	72
28	Spatial distributions of trapping centers in HfO <sub>2</sub> /SiO <sub>2</sub> gate stacks. Applied Physics Letters, 2006, 88, 152907.	3.3	67
29	Indium stability on InGaAs during atomic H surface cleaning. Applied Physics Letters, 2008, 92, .	3.3	62
30	Is interfacial chemistry correlated to gap states for high-k/III-V interfaces?. Microelectronic Engineering, 2011, 88, 1061-1065.	2.4	62
31	Field-effect transistors based on wafer-scale, highly uniform few-layer p-type WSe <sub>2</sub> . Nanoscale, 2016, 8, 2268-2276.	5.6	58
32	Spatial Distributions of Trapping Centers in $\text{HfO}_2/\text{SiO}_2$ Gate Stack. IEEE Transactions on Electron Devices, 2007, 54, 1338-1345.	3.0	56
33	Comparison of n-type and p-type GaAs oxide growth and its effects on frequency dispersion characteristics. Applied Physics Letters, 2008, 93, 113506.	3.3	55
34	Control and stability of self-assembled monolayers under biosensing conditions. Journal of Materials Chemistry, 2011, 21, 4384.	6.7	55
35	Reliability of ultrathin silicon dioxide under combined substrate hot-electron and constant voltage tunneling stress. IEEE Transactions on Electron Devices, 2000, 47, 1183-1191.	3.0	54
36	Performance enhancement of n-channel inversion type In <sub>x</sub> Ga <sub>1-x</sub> As metal-oxide-semiconductor field effect transistor using <i>in situ</i> deposited thin amorphous silicon layer. Applied Physics Letters, 2008, 93, .	3.3	54

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37	Precise Alignment of Single Nanowires and Fabrication of Nanoelectromechanical Switch and Other Test Structures. IEEE Nanotechnology Magazine, 2007, 6, 256-262.	2.0	52
38	Effect of post deposition anneal on the characteristics of HfO <sub>2</sub> /InP metal-oxide-semiconductor capacitors. Applied Physics Letters, 2011, 99, .	3.3	51
39	The significance of core-level electron binding energies on the proper analysis of InGaAs interfacial bonding. Applied Physics Letters, 2009, 95, 151905.	3.3	50
40	Enhanced Resonant Tunneling in Symmetric 2D Semiconductor Vertical Heterostructure Transistors. ACS Nano, 2015, 9, 5000-5008.	14.6	50
41	Low-frequency noise characterization of n- and p-MOSFET's with ultrathin oxynitride gate films. IEEE Electron Device Letters, 1996, 17, 395-397.	3.9	49
42	Tunneling characteristics in chemical vapor deposited graphene-hexagonal boron nitride-graphene junctions. Applied Physics Letters, 2014, 104, .	3.3	49
43	<i>In situ</i> thermal oxidation kinetics in few layer MoS <sub>2</sub> . 2D Materials, 2017, 4, 025058.	4.4	49
44	Heavy-ion-induced soft breakdown of thin gate oxides. IEEE Transactions on Nuclear Science, 2001, 48, 1913-1916.	2.0	46
45	Low-pressure rapid thermal chemical vapor deposition of oxynitride gate dielectrics for n-channel and p-channel MOSFETs. IEEE Transactions on Electron Devices, 1996, 43, 15-22.	3.0	45
46	Observation of latent reliability degradation in ultrathin oxides after heavy-ion irradiation. Applied Physics Letters, 2002, 80, 1282-1284.	3.3	42
47	Surface passivation and implications on high mobility channel performance (Invited Paper). Microelectronic Engineering, 2009, 86, 1544-1549.	2.4	41
48	Layer-by-Layer Evolution of Structure, Strain, and Activity for the Oxygen Evolution Reaction in Graphene-Templated Pt Monolayers. ACS Applied Materials & Interfaces, 2015, 7, 6180-6188.	8.0	40
49	Deposition of HfO <sub>2</sub> on InAs by atomic-layer deposition. Microelectronic Engineering, 2009, 86, 1561-1563.	2.4	39
50	Extraction of the Effective Mobility of $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ MOSFETs. IEEE Electron Device Letters, 2009, 30, 316-318.	3.9	39
51	Two-dimensional layered transition-metal dichalcogenides for versatile properties and applications. MRS Bulletin, 2015, 40, 558-563.	3.5	39
52	Impact of Semiconductor and Interface-State Capacitance on Metal/High-k/GaAs Capacitance-Voltage Characteristics. IEEE Transactions on Electron Devices, 2010, 57, 2599-2606.	3.0	38
53	Electrical and chemical characteristics of Al <sub>2</sub> O <sub>3</sub> /InP metal-oxide-semiconductor capacitors. Applied Physics Letters, 2013, 102, 132903.	3.3	37
54	Multilevel Switching in Forming-Free Resistive Memory Devices With Atomic Layer Deposited $\text{HfTiO}_x$ Nanolaminate. IEEE Electron Device Letters, 2013, 34, 867-869.	3.9	37

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55	Asymmetric Energy Distribution of Interface Traps in n- and p-MOSFETs With $\text{HfO}_2$ Gate Dielectric on Ultrathin $\text{SiON}$ Buffer Layer. <i>IEEE Electron Device Letters</i> , 2004, 25, 126-128.	3.9	34
56	14MHz organic diodes fabricated using photolithographic processes. <i>Applied Physics Letters</i> , 2007, 90, 262105.	3.3	34
57	Epitaxial and atomically thin graphene-metal hybrid catalyst films: the dual role of graphene as the support and the chemically-transparent protective cap. <i>Energy and Environmental Science</i> , 2018, 11, 1610-1616.	30.8	34
58	Gold-coated graphene field-effect transistors for quantitative analysis of protein-antibody interactions. <i>2D Materials</i> , 2015, 2, 044008.	4.4	32
59	Mobility behaviour of n-channel and p-channel MOSFETs with oxynitride gate dielectrics formed by low-pressure rapid thermal chemical vapor deposition. <i>IEEE Transactions on Electron Devices</i> , 1996, 43, 753-758.	3.0	30
60	Defect generation and breakdown of ultrathin silicon dioxide induced by substrate hot-hole injection. <i>Journal of Applied Physics</i> , 2001, 90, 2338-2346.	2.5	30
61	Cleaning graphene with a titanium sacrificial layer. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	30
62	Interfacial oxygen and nitrogen induced dipole formation and vacancy passivation for increased effective work functions in $\text{TiN}/\text{HfO}_2$ gate stacks. <i>Applied Physics Letters</i> , 2010, 96, .	3.3	29
63	Spike-Timing-Dependent Plasticity Using Biologically Realistic Action Potentials and Low-Temperature Materials. <i>IEEE Nanotechnology Magazine</i> , 2013, 12, 450-459.	2.0	28
64	Remote phonon and surface roughness limited universal electron mobility of $\text{In}_{0.53}\text{Ga}_{0.47}\text{As}$ surface channel MOSFETs. <i>Microelectronic Engineering</i> , 2011, 88, 1083-1086.	2.4	27
65	SPICE macromodel of silicon-on-insulator-field-effect-transistor-based biological sensors. <i>Sensors and Actuators B: Chemical</i> , 2012, 161, 163-170.	7.8	27
66	Resonant Light-Induced Heating in Hybrid Cavity-Coupled 2D Transition-Metal Dichalcogenides. <i>ACS Photonics</i> , 2016, 3, 700-707.	6.6	27
67	Study of low-frequency charge pumping on thin stacked dielectrics. <i>IEEE Transactions on Electron Devices</i> , 2001, 48, 2754-2762.	3.0	26
68	Influence of buffer layer thickness on memory effects of $\text{SrBi}_2\text{Ta}_2\text{O}_9/\text{SiN}/\text{Si}$ structures. <i>Applied Physics Letters</i> , 2004, 85, 1439-1441.	3.3	25
69	Solution-Processed Doping of Trilayer $\text{WSe}_2$ with Redox-Active Molecules. <i>Chemistry of Materials</i> , 2017, 29, 7296-7304.	6.7	25
70	Substrate dependent resistive switching in amorphous- $\text{HfO}_x$ memristors: an experimental and computational investigation. <i>Journal of Materials Chemistry C</i> , 2020, 8, 5092-5101.	5.5	25
71	Molecular devices formed by direct monolayer attachment to silicon. <i>Solid-State Electronics</i> , 2004, 48, 1747-1752.	1.4	24
72	Surface Studies of III-V Materials: Oxidation Control and Device Implications. <i>ECS Transactions</i> , 2009, 19, 387-403.	0.5	24

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73	One-Step Selective Chemistry for Silicon-on-Insulator Sensor Geometries. Langmuir, 2011, 27, 7337-7340.	3.5	24
74	Synthetic Engineering of Morphology and Electronic Band Gap in Lateral Heterostructures of Monolayer Transition Metal Dichalcogenides. ACS Nano, 2020, 14, 6323-6330.	14.6	24
75	Strain relaxation via formation of cracks in compositionally modulated two-dimensional semiconductor alloys. Npj 2D Materials and Applications, 2018, 2, .	7.9	23
76	Chemical and electrical characterization of the HfO <sub>2</sub> /InAlAs interface. Journal of Applied Physics, 2013, 114, .	2.5	22
77	Band structure effects on resonant tunneling in III-V quantum wells versus two-dimensional vertical heterostructures. Journal of Applied Physics, 2016, 119, .	2.5	22
78	A capacitance-voltage model for polysilicon-gated MOS devices including substrate quantization effects based on modification of the total semiconductor charge. Solid-State Electronics, 2003, 47, 1589-1596.	1.4	21
79	Combinatorial study of Ni-Ti-Pt ternary metal gate electrodes on HfO <sub>2</sub> for the advanced gate stack. Applied Physics Letters, 2006, 89, 142108.	3.3	21
80	Comparison of Methods to Bias Fully Depleted SOI-Based MOSFET Nanoribbon pH Sensors. IEEE Transactions on Electron Devices, 2011, 58, 1752-1760.	3.0	21
81	Structural and Electrical Properties of HfO <sub>2</sub> /n-In <sub>x</sub> Ga <sub>1-x</sub> As structures (x: 0, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1.0). Tj ETQq1 1 0.784314 rgBT / Over 20	0.5	20
82	Time-dependent breakdown of ultra-thin SiO <sub>2</sub> gate dielectrics under pulsed biased stress. IEEE Electron Device Letters, 2001, 22, 224-226.	3.9	19
83	Issues with characterizing transport properties of graphene field effect transistors. Solid State Communications, 2012, 152, 1311-1316.	1.9	19
84	Plasma-assisted synthesis of MoS <sub>2</sub> . 2D Materials, 2018, 5, 015005.	4.4	19
85	Submicron Ambipolar Nanocrystalline Silicon Thin-Film Transistors and Inverters. IEEE Transactions on Electron Devices, 2012, 59, 359-366.	3.0	18
86	Interface characterization of molecular-monolayer/SiO <sub>2</sub> based molecular junctions. Solid-State Electronics, 2006, 50, 1088-1096.	1.4	17
87	Nanometre gaps in gold wires are formed by thermal migration. Nanotechnology, 2005, 16, 1294-1299.	2.6	16
88	Nonlinear Switching With Ultralow Reset Power in Graphene-Insulator-Graphene Forming-Free Resistive Memories. IEEE Electron Device Letters, 2014, 35, 750-752.	3.9	16
89	Graphene-Molybdenum Disulfide-Graphene Tunneling Junctions with Large-Area Synthesized Materials. ACS Applied Materials & Interfaces, 2016, 8, 8702-8709.	8.0	16
90	Towards a better understanding of the forming and resistive switching behavior of Ti-doped HfO <sub>x</sub> RRAM. Journal of Materials Chemistry C, 2022, 10, 5896-5904.	5.5	16

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91	Atomic-Layer-Deposited Al <sub>2</sub> O <sub>3</sub> as Gate Dielectrics for Graphene-Based Devices. ECS Transactions, 2009, 19, 225-230.	0.5	14
92	Direct correlation between potentiometric and impedance biosensing of antibody-antigen interactions using an integrated system. Applied Physics Letters, 2017, 111, .	3.3	14
93	Graphene synthesized by chemical vapor deposition as a hydrogen isotope permeation barrier. Carbon, 2021, 176, 106-117.	10.3	14
94	Impact of the thermal environment on the analog temporal response of HfO <sub>x</sub> -based neuromorphic devices. Applied Physics Letters, 2020, 116, .	3.3	13
95	Experimental and computational analysis of thermal environment in the operation of HfO <sub>2</sub> memristors. AIP Advances, 2020, 10, .	1.3	13
96	Impact of substrate hot hole injection on ultrathin silicon dioxide breakdown. Applied Physics Letters, 2003, 82, 3242-3244.	3.3	12
97	The impact of defect density, grain size, and Cu orientation on thermal oxidation of graphene-coated Cu. Applied Surface Science, 2019, 478, 959-968.	6.1	12
98	SPICE simulation of nanoscale non-crystalline silicon TFTs in spiking neuron circuits. , 2010, , .		11
99	Logic Gates and Ring Oscillators Based on Ambipolar Nanocrystalline-Silicon TFTs. Active and Passive Electronic Components, 2013, 2013, 1-7.	0.3	11
100	Impact of titanium doping and pulsing conditions on the analog temporal response of hafnium oxide based memristor synapses. Journal of Applied Physics, 2022, 131, .	2.5	11
101	The synthesis mechanism of Mo <sub>2</sub> C on Ag-Cu alloy substrates by chemical vapor deposition and the impact of substrate choice. 2D Materials, 2020, 7, 035022.	4.4	10
102	Bottom-Up Masking of Si/Ge Surfaces and Nanowire Heterostructures <i>via</i> Surface-Initiated Polymerization and Selective Etching. ACS Nano, 2020, 14, 282-288.	14.6	9
103	A Gate Dielectric Last Approach to Integrate Organic Based Devices on Plastic Substrates. , 2008, , .		8
104	Hydrogenated amorphous silicon nanowire transistors with Schottky barrier source/drain junctions. Applied Physics Letters, 2010, 97, .	3.3	8
105	Spike timing-dependent synaptic plasticity using memristors and nano-crystalline silicon TFT memories. , 2011, , .		8
106	Impact of oxygen concentration at the HfO <sub>x</sub> /Ti interface on the behavior of HfO <sub>x</sub> filamentary memristors. Journal of Materials Science, 2022, 57, 9299-9311.	3.7	8
107	Metrology Challenges for Emerging Research Devices and Materials. IEEE Transactions on Semiconductor Manufacturing, 2006, 19, 397-403.	1.7	7
108	Ambipolar nano-crystalline-silicon TFTs with submicron dimensions and reduced threshold voltage shift. , 2011, , .		7

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109	Material Constraints and Scaling of 2-D Vertical Heterostructure Interlayer Tunnel Field-Effect Transistors. IEEE Transactions on Electron Devices, 2017, 64, 2714-2720.	3.0	7
110	Preblocking Procedure to Mitigate Nonselective Protein Adsorption for Carboxyl-SAMs Used in Biosensing. Journal of Physical Chemistry C, 2019, 123, 16778-16786.	3.1	7
111	Reliability of ultra-thin silicon dioxide under substrate hot-electron, substrate hot-hole and tunneling stress. Microelectronic Engineering, 2001, 59, 73-83.	2.4	6
112	A Comparison of Thickness Values for Very Thin SiO <sub>2</sub> Films by Using Ellipsometric, Capacitance-Voltage, and HRTEM Measurements. Journal of the Electrochemical Society, 2006, 153, F12.	2.9	6
113	Contact Resistance Studies of Metal on HOPG and Graphene Stacks. , 2009, , .		6
114	High-k Oxide Growth on III-V Surfaces: Chemical Bonding and MOSFET Performance. ECS Transactions, 2011, 35, 403-413.	0.5	6
115	Low-temperature, plasma assisted, cyclic synthesis of MoS <sub>2</sub> . Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2018, 36, .	1.2	6
116	Total Ionizing Dose Effects and Proton-Induced Displacement Damage on MoS <sub>2</sub> -Interlayer-MoS <sub>2</sub> Tunneling Junctions. IEEE Transactions on Nuclear Science, 2019, 66, 420-427.	2.0	6
117	In-Cu alloy substrates for low-temperature chemical vapor deposition of Mo <sub>2</sub> C. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 012201.	2.1	6
118	Thickness Evaluation for 2nm SiO <sub>2</sub> Films, a Comparison of Ellipsometric, Capacitance-Voltage and HRTEM Measurements. AIP Conference Proceedings, 2003, , .	0.4	5
119	Investigation of Tunneling Current in $\text{SiO}_2/\text{HfO}_2$ Gate Stacks for Flash Memory Applications. IEEE Transactions on Electron Devices, 2011, 58, 4189-4195.	3.0	5
120	Spatio-temporal pattern recognition in neural circuits with memory-transistor-driven memristive synapses. , 2017, , .		5
121	Impact of Synthesized MoS <sub>2</sub> Wafer-Scale Quality on Fermi Level Pinning in Vertical Schottky-Barrier Heterostructures. ACS Applied Materials & Interfaces, 2018, 10, 39860-39871.	8.0	5
122	A SPICE compact model for forming-free, low-power graphene-insulator-graphene ReRAM technology. Emergent Materials, 2021, 4, 1055-1065.	5.7	5
123	Comprehensive Capacitance-Voltage Simulation and Extraction Tool Including Quantum Effects for High- $k$ on $\text{Si}_x\text{Ge}_{1-x}$ and $\text{In}_x\text{Ga}_{1-x}\text{As}$ : Part II—Fits and Extraction From Experimental Data. IEEE Transactions on Electron Devices, 2017, 64, 3794-3801.	3.0	4
124	ALD TiO <sub>x</sub> as a top-gate dielectric and passivation layer for InGaZnO <sub>115</sub> ISFETs. Semiconductor Science and Technology, 2017, 32, 114004.	2.0	4
125	Measurement of gas-concentration-driven permeation for the examination of permeability, solubility, and diffusivity in varying materials. Review of Scientific Instruments, 2020, 91, 105105.	1.3	4
126	Fabrication and characterization of a self-aligned gate stack for electronics applications. Applied Physics Letters, 2021, 119, .	3.3	4

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127	Interaction between low-energy electrons and defects created by hot holes in ultrathin silicon dioxide. <i>Applied Physics Letters</i> , 2002, 80, 3343-3345.	3.3	3
128	Challenges of Electrical Measurements of Advanced Gate Dielectrics in Metal-Oxide-Semiconductor Devices. <i>AIP Conference Proceedings</i> , 2003, , .	0.4	3
129	(Invited) Electrical and Physical Properties of High-k Gate Dielectrics on In <sub>x</sub> Ga <sub>1-x</sub> As. <i>ECS Transactions</i> , 2010, 28, 209-219.	0.5	3
130	(Invited) Band-Edge Effective Work Functions by Controlling HfO <sub>2</sub> /TiN Interfacial Composition for Gate-Last CMOS. <i>ECS Transactions</i> , 2011, 35, 285-295.	0.5	3
131	Comprehensive Capacitance-Voltage Simulation and Extraction Tool Including Quantum Effects for High-k on SiGe and InGaAs: Part I Model Description and Validation. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 3786-3793.	3.0	3
132	General model for mass transport to planar and nanowire biosensor surfaces. <i>Journal of Applied Physics</i> , 2019, 125, 114502.	2.5	3
133	Protein interactions with chemical vapor deposited graphene modified by substrate. <i>2D Materials</i> , 2021, 8, 025015.	4.4	3
134	Materials Science of Graphene for Novel Device Applications. <i>ECS Transactions</i> , 2009, 19, 185-199.	0.5	2
135	First-Principles and Quantum Transport Studies of Metal-Graphene End Contacts. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1259, 1.	0.1	2
136	Submicron ambipolar nanocrystalline-silicon TFTs with high-K gate dielectrics. , 2011, , .		2
137	Noise effects in field-effect transistor biological sensor detection circuits. , 2012, , .		2
138	Low-Temperature Fabrication of Spiking Soma Circuits Using Nanocrystalline-Silicon TFTs. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2013, 24, 1466-1472.	11.3	2
139	Forming-free resistive switching with low current operation in graphene-insulator-graphene structures. , 2013, , .		2
140	Interfacial Li-Ion Storage between Graphene Layers. <i>ECS Transactions</i> , 2017, 77, 19-25.	0.5	2
141	Quantum Statistical Transport Phenomena in Memristive Computing Architectures. <i>Physical Review Applied</i> , 2021, 15, .	3.8	2
142	Protein blocking inhibits ambient degradation of self-assembled monolayers for affinity biosensing. <i>Applied Surface Science</i> , 2021, 557, 149843.	6.1	2
143	Interfacial Chemistry of Oxides on III-V Compound Semiconductors. , 2010, , 131-172.		2
144	Bottom-up nanoscale patterning and selective deposition on silicon nanowires. <i>Nanotechnology</i> , 2021, , .	2.6	2

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145	Transport Properties of Graphene Transistors. ECS Transactions, 2011, 35, 229-237.	0.5	1
146	Investigation of switching mechanism in forming-free multi-level resistive memories with atomic layer deposited HfTiO <sub>x</sub> nanolaminate. , 2014, , .		1
147	Disorder and Weak Localization near Charge Neutral Point in Ti-cleaned Single-Layer Graphene. Physica Status Solidi (B): Basic Research, 2019, 256, 1800541.	1.5	1
148	Technology and metrology of new electronic materials and devices. , 2009, , 166-173.		1
149	CHARACTERIZATION OF ELECTRICALLY ACTIVE DEFECTS IN HIGH-K GATE DIELECTRICS USING CHARGE PUMPING. , 2006, , 85-96.		1
150	Metrology for Emerging Devices and Materials. AIP Conference Proceedings, 2005, , .	0.4	0
151	Lithographically Defined Si Nanowire Field Effect Transistors for Biochemical Sensing. , 2008, , .		0
152	In-situ Studies of Atomic Layer Deposition Studies on High-Mobility Channel Materials. ECS Transactions, 2009, 25, 115-122.	0.5	0
153	Three-Dimensional Simulation Study of the Improved On/Off Current Ratio in Silicon Nanowire Field-Effect Transistors. Journal of the Korean Physical Society, 2008, 53, 1680-1684.	0.7	0