

Sayyef Salahuddin

List of Publications by Year in descending order

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168
papers

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times ranked

9551
citing authors

#	ARTICLE	IF	CITATIONS
1	One Nanometer HfO ₂ -Based Ferroelectric Tunnel Junctions on Silicon. <i>Advanced Electronic Materials</i> , 2022, 8, 2100499.	5.1	52
2	RKKY Exchange Bias Mediated Ultrafast All-optical Switching of a Ferromagnet. <i>Advanced Functional Materials</i> , 2022, 32, 2107490.	14.9	17
3	Large Injection Velocities in Highly Scaled, Fully Depleted Silicon on Insulator Transistors. <i>IEEE Electron Device Letters</i> , 2022, 43, 184-187.	3.9	6
4	A Compact Model of Antiferroelectric Capacitor. <i>IEEE Electron Device Letters</i> , 2022, 43, 316-318.	3.9	3
5	A Compact Model of Metal–Ferroelectric-Insulator–Semiconductor Tunnel Junction. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 414-418.	3.0	6
6	Fast Read-After-Write and Depolarization Fields in High Endurance n-Type Ferroelectric FETs. <i>IEEE Electron Device Letters</i> , 2022, 43, 717-720.	3.9	23
7	Ultrathin ferroic HfO ₂ –ZrO ₂ superlattice gate stack for advanced transistors. <i>Nature</i> , 2022, 604, 65-71.	27.8	108
8	Logically synthesized and hardware-accelerated restricted Boltzmann machines for combinatorial optimization and integer factorization. <i>Nature Electronics</i> , 2022, 5, 92-101.	26.0	15
9	Emergent ferroelectricity in subnanometer binary oxide films on silicon. <i>Science</i> , 2022, 376, 648-652.	12.6	65
10	A Compact Model of Nanoscale Ferroelectric Capacitor. <i>IEEE Transactions on Electron Devices</i> , 2022, 69, 4761-4764.	3.0	1
11	A Compact Model of Ferroelectric Field-Effect Transistor. <i>IEEE Electron Device Letters</i> , 2022, 43, 1363-1366.	3.9	5
12	Accelerated Ultrafast Magnetization Dynamics at Graphene/CoGd Interfaces. <i>ACS Nano</i> , 2022, 16, 9620-9630.	14.6	2
13	Local negative permittivity and topological phase transition in polar skyrmions. <i>Nature Materials</i> , 2021, 20, 194-201.	27.5	86
14	Epitaxial Ferroelectric Hf _{0.5} Zr _{0.5} O ₂ with Metallic Pyrochlore Oxide Electrodes. <i>Advanced Materials</i> , 2021, 33, e2006089.	21.0	26
15	Ultrathin Ferroelectricity and Its Application in Advanced Logic and Memory Devices. , 2021, , .		2
16	Electric Field-Induced Permittivity Enhancement in Negative-Capacitance FET. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1346-1351.	3.0	10
17	Unifying femtosecond and picosecond single-pulse magnetic switching in Gd-Fe-Co. <i>Physical Review B</i> , 2021, 103, .	3.2	25
18	Energy Storage and Reuse in Negative Capacitance. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 1861-1865.	3.0	2

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19	Unified Framework for Charge-Spin Interconversion in Spin-Orbit Materials. <i>Physical Review Applied</i> , 2021, 15, .	3.8	8
20	Novel Spin-Orbit Torque Generation at Room Temperature in an All-Oxide Epitaxial La _{0.7} Sr _{0.3} MnO ₃ /SrIrO ₃ System. <i>Advanced Materials</i> , 2021, 33, e2008269.	21.0	32
21	Atomic scale understanding of the electronic structure of 5d-3d perovskite oxide heterostructures using STEM-EELS.. <i>Microscopy and Microanalysis</i> , 2021, 27, 356-358.	0.4	0
22	Compact Modeling of Temperature Effects in FDSOI and FinFET Devices Down to Cryogenic Temperatures. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 4223-4230.	3.0	38
23	A Voltage-Controlled Gain Cell Magnetic Memory. <i>IEEE Electron Device Letters</i> , 2021, 42, 1452-1455.	3.9	0
24	A Compact Model of Polycrystalline Ferroelectric Capacitor. <i>IEEE Transactions on Electron Devices</i> , 2021, 68, 5311-5314.	3.0	15
25	Ferroelectric HfO ₂ Memory Transistors With High- $\text{I}_{\text{on}}/\text{I}_{\text{off}}$ Interfacial Layer and Write Endurance Exceeding 10 ¹⁰ Cycles. <i>IEEE Electron Device Letters</i> , 2021, 42, 994-997.	3.9	117
26	Double-peaked resonance in harmonic-free acoustically driven ferromagnetic resonance. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	3
27	Ferroelectric gate oxides for negative capacitance transistors. <i>MRS Bulletin</i> , 2021, 46, 930-937.	3.5	12
28	Towards the Integration of Hf _{0.8} Zr _{0.2} O ₂ -based Negative Capacitance Dielectrics on \$eta-Ga ₂ O ₃ Substrates. , 2021, , .		1
29	Demonstration of Low EOT Gate Stack and Record Transconductance on $L_{\text{g}}=90$ nm nFETs Using 1.8 nm Ferroic HfO ₂ -ZrO ₂ Superlattice. , 2021, , .		0
30	Near Threshold Capacitance Matching in a Negative Capacitance FET With 1 nm Effective Oxide Thickness Gate Stack. <i>IEEE Electron Device Letters</i> , 2020, 41, 179-182.	3.9	30
31	BSIM Compact Model of Quantum Confinement in Advanced Nanosheet FETs. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 730-737.	3.0	38
32	Experimental Demonstration of a Ferroelectric HfO ₂ -Based Content Addressable Memory Cell. <i>IEEE Electron Device Letters</i> , 2020, 41, 240-243.	3.9	45
33	Ferroelectric Domain Wall Motion in Freestanding Single-Crystal Complex Oxide Thin Film. <i>Advanced Materials</i> , 2020, 32, e1907036.	21.0	30
34	Resonant Enhancement of Exchange Coupling for Voltage-Controlled Magnetic Switching. <i>Physical Review Applied</i> , 2020, 14, .	3.8	2
35	Highly Scaled, High Endurance, TiO_2 -Gate, Nanowire Ferroelectric FET Memory Transistors. <i>IEEE Electron Device Letters</i> , 2020, 41, 1637-1640.	3.9	39
36	Electric-field control of spin dynamics during magnetic phase transitions. <i>Science Advances</i> , 2020, 6, .	10.3	22

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37	Reliability of Ferroelectric HfO ₂ -based Memories: From MOS Capacitor to FeFET. , 2020, , .	6	
38	Design Optimization Techniques in Nanosheet Transistor for RF Applications. IEEE Transactions on Electron Devices, 2020, 67, 4515-4520.	3.0	26
39	Analysis and Modeling of Polarization Gradient Effect on Negative Capacitance FET. IEEE Transactions on Electron Devices, 2020, 67, 4521-4525.	3.0	13
40	Dynamic Memory and Sequential Logic Design using Negative Capacitance FinFETs. , 2020, , .	1	
41	Statistically meaningful measure of domain-wall roughness in magnetic thin films. Physical Review B, 2020, 101, .	3.2	9
42	Tunneling electroresistance effects in epitaxial complex oxides on silicon. Applied Physics Letters, 2020, 116, .	3.3	8
43	Tunable Magnetoelastic Effects in Voltage-Controlled Exchange-Coupled Composite Multiferroic Microstructures. ACS Applied Materials & Interfaces, 2020, 12, 6752-6760.	8.0	12
44	Fully transparent field-effect transistor with high drain current and on-off ratio. APL Materials, 2020, 8, .	5.1	23
45	Enhanced ferroelectricity in ultrathin films grown directly on silicon. Nature, 2020, 580, 478-482.	27.8	486
46	Ultrafast magnetization switching in nanoscale magnetic dots. Applied Physics Letters, 2019, 114, .	3.3	39
47	Micromagnetic analysis and optimization of spin-orbit torque switching processes in synthetic antiferromagnets. Journal of Applied Physics, 2019, 126, 163905.	2.5	4
48	Anomalously Beneficial Gate-Length Scaling Trend of Negative Capacitance Transistors. IEEE Electron Device Letters, 2019, 40, 1860-1863.	3.9	16
49	Challenges to Partial Switching of Hf _{0.8} Zr _{0.2} O ₂ Gated Ferroelectric FET for Multilevel/Analog or Low-Voltage Memory Operation. IEEE Electron Device Letters, 2019, 40, 1423-1426.	3.9	27
50	Ferroelectric Si-doped HfO ₂ Capacitors for Next-Generation Memories. , 2019, , .	1	
51	BSIM-HV: High-Voltage MOSFET Model Including Quasi-Saturation and Self-Heating Effect. IEEE Transactions on Electron Devices, 2019, 66, 4258-4263.	3.0	23
52	Generation and stability of structurally imprinted target skyrmions in magnetic multilayers. Applied Physics Letters, 2019, 115, .	3.3	14
53	A Spinâ€“Orbitâ€“Torque Memristive Device. Advanced Electronic Materials, 2019, 5, 1800782.	5.1	51
54	Characterization and Modeling of Flicker Noise in FinFETs at Advanced Technology Node. IEEE Electron Device Letters, 2019, 40, 985-988.	3.9	28

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55	Spin-orbit torque and Nernst effect in Bi-Sb/Co heterostructures. Physical Review B, 2019, 99, .	3.2	53
56	Spacer Engineering in Negative Capacitance FinFETs. IEEE Electron Device Letters, 2019, 40, 1009-1012.	3.9	36
57	Negative Capacitance FET With 1.8-nm-Thick Zr-Doped HfO ₂ Oxide. IEEE Electron Device Letters, 2019, 40, 993-996.	3.9	106
58	Optimization of NCFET by Matching Dielectric and Ferroelectric Nonuniformly Along the Channel. IEEE Electron Device Letters, 2019, 40, 822-825.	3.9	16
59	Analysis and Modeling of Inner Fringing Field Effect on Negative Capacitance FinFETs. IEEE Transactions on Electron Devices, 2019, 66, 2023-2027.	3.0	37
60	Memristors: A Spinâ€“Orbitâ€“Torque Memristive Device (Adv. Electron. Mater. 4/2019). Advanced Electronic Materials, 2019, 5, 1970022.	5.1	4
61	Negative Capacitance Transistors. Proceedings of the IEEE, 2019, 107, 49-62.	21.3	95
62	Proposal for Capacitance Matching in Negative Capacitance Field-Effect Transistors. IEEE Electron Device Letters, 2019, 40, 463-466.	3.9	66
63	Spatially resolved steady-state negative capacitance. Nature, 2019, 565, 468-471.	27.8	245
64	Designing 0.5 V 5-nm HP and 0.23 V 5-nm LP NC-FinFETs With Improved $\{I\}_{OFF}$ Sensitivity in Presence of Parasitic Capacitance. IEEE Transactions on Electron Devices, 2018, 65, 1211-1216.	3.0	31
65	Engineering Negative Differential Resistance in NCFETs for Analog Applications. IEEE Transactions on Electron Devices, 2018, 65, 2033-2039.	3.0	79
66	Improved Subthreshold Swing and Short Channel Effect in FDSOI n-Channel Negative Capacitance Field Effect Transistors. IEEE Electron Device Letters, 2018, 39, 300-303.	3.9	128
67	Electrically induced, non-volatile, metal insulator transition in a ferroelectric-controlled MoS ₂ transistor. Applied Physics Letters, 2018, 112, .	3.3	18
68	A Nitrided Interfacial Oxide for Interface State Improvement in Hafnium Zirconium Oxide-Based Ferroelectric Transistor Technology. IEEE Electron Device Letters, 2018, 39, 95-98.	3.9	24
69	Modeling of Advanced RF Bulk FinFETs. IEEE Electron Device Letters, 2018, 39, 791-794.	3.9	17
70	Multidomain Phase-Field Modeling of Negative Capacitance Switching Transients. IEEE Transactions on Electron Devices, 2018, 65, 295-298.	3.0	17
71	Negative-Capacitance FinFET Inverter, Ring Oscillator, SRAM Cell, and Ft. , 2018, , .		19
72	Response Speed of Negative Capacitance FinFETs. , 2018, , .		29

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73	Negative Capacitance, n-Channel, Si FinFETs: Bi-directional Sub-60 mV/dec, Negative DIBL, Negative Differential Resistance and Improved Short Channel Effect. , 2018, ,	43	
74	Negative-Capacitance FinFETs: Numerical Simulation, Compact Modeling and Circuit Evaluation. , 2018, ,	9	
75	Variation Caused by Spatial Distribution of Dielectric and Ferroelectric Grains in a Negative Capacitance Field-Effect Transistor. IEEE Transactions on Electron Devices, 2018, 65, 4652-4658.	3.0	29
76	Novel Cascadable Magnetic Majority Gates for Implementing Comprehensive Logic Functions. IEEE Transactions on Electron Devices, 2018, 65, 4687-4693.	3.0	8
77	Voltage-driven, local, and efficient excitation of nitrogen-vacancy centers in diamond. Science Advances, 2018, 4, eaat6574.	10.3	42
78	Ferroelectric negative capacitance domain dynamics. Journal of Applied Physics, 2018, 123, .	2.5	72
79	NCFET Design Considering Maximum Interface Electric Field. IEEE Electron Device Letters, 2018, 39, 1254-1257.	3.9	33
80	One-Dimensional Spin Channel in Two-Dimensional Transition Metal Dichalcogenide Heterostructures. IEEE Nanotechnology Magazine, 2018, 17, 1053-1057.	2.0	5
81	In situferromagnetic resonance capability on a polarized neutron reflectometry beamline. Journal of Applied Crystallography, 2018, 51, 9-16.	4.5	5
82	Mapping Polarity, Toroidal Order, and the Local Energy Landscape by 4D-STEM. Microscopy and Microanalysis, 2018, 24, 176-177.	0.4	2
83	The era of hyper-scaling in electronics. Nature Electronics, 2018, 1, 442-450.	26.0	375
84	Electrically controlled switching of the magnetization state in multiferroic BaTiO_3 submicrometer structures. Physical Review Materials, 2018, 2, .	10	
85	High Speed Epitaxial Perovskite Memory on Flexible Substrates. Advanced Materials, 2017, 29, 1605699.	21.0	74
86	A Predictive Tunnel FET Compact Model With Atomistic Simulation Validation. IEEE Transactions on Electron Devices, 2017, 64, 599-605.	3.0	20
87	Interface Engineering of Domain Structures in BiFeO_3 Thin Films. Nano Letters, 2017, 17, 486-493.	9.1	69
88	Self-Aligned, Gate Last, FDSOI, Ferroelectric Gate Memory Device With 5.5-nm $\text{Hf}_{0.8}\text{Zr}_{0.2}\text{O}_{2}$, High Endurance and Breakdown Recovery. IEEE Electron Device Letters, 2017, 38, 1379-1382.	3.9	76
89	Nonvolatile MoS ₂ field effect transistors directly gated by single crystalline epitaxial ferroelectric. Applied Physics Letters, 2017, 111, .	3.3	45
90	Intrinsic speed limit of negative capacitance transistors. IEEE Electron Device Letters, 2017, 38, 1328-1330.	3.9	61

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91	Work Function Engineering for Performance Improvement in Leaky Negative Capacitance FETs. <i>IEEE Electron Device Letters</i> , 2017, 38, 1335-1338.	3.9	64
92	Spin wave generation by surface acoustic waves. <i>Journal of Applied Physics</i> , 2017, 122, .	2.5	51
93	Compact Modeling Source-to-Drain Tunneling in Sub-10-nm GAA FinFET With Industry Standard Model. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 3576-3581.	3.0	13
94	Modeling of Back-Gate Effects on Gate-Induced Drain Leakage and Gate Currents in UTB SOI MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 3986-3990.	3.0	9
95	Stabilization of ferroelectric phase in tungsten capped Hf _{0.8} Zr _{0.2} O ₂ . <i>Applied Physics Letters</i> , 2017, 111, .	3.3	58
96	Spin-orbit torque switching of ultralarge-thickness ferrimagnetic GdFeCo. <i>Physical Review B</i> , 2017, 96, .	3.2	74
97	Implementing p-bits With Embedded MTJ. <i>IEEE Electron Device Letters</i> , 2017, 38, 1767-1770.	3.9	118
98	Hidden Magnetic States Emergent Under Electric Field, In A Room Temperature Composite Magnetolectric Multiferroic. <i>Scientific Reports</i> , 2017, 7, 15460.	3.3	25
99	Ultrafast magnetization reversal by picosecond electrical pulses. <i>Science Advances</i> , 2017, 3, e1603117.	10.3	127
100	Sustained Sub-60 mV/decade Switching via the Negative Capacitance Effect in MoS ₂ Transistors. <i>Nano Letters</i> , 2017, 17, 4801-4806.	9.1	237
101	Ultrafast magnetic switching of GdFeCo with electronic heat currents. <i>Physical Review B</i> , 2017, 95, .	3.2	43
102	Enabling Energy-Efficient Nonvolatile Computing With Negative Capacitance FET. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 3452-3458.	3.0	72
103	Impact of Parasitic Capacitance and Ferroelectric Parameters on Negative Capacitance FinFET Characteristics. <i>IEEE Electron Device Letters</i> , 2017, 38, 142-144.	3.9	71
104	Differential voltage amplification from ferroelectric negative capacitance. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	36
105	Intrinsic Limits to Contact Resistivity in Transition Metal Dichalcogenides. <i>IEEE Electron Device Letters</i> , 2017, 38, 1755-1758.	3.9	8
106	Partial switching of ferroelectrics for synaptic weight storage. , 2017, , .		7
107	Review of negative capacitance transistors. , 2016, , .		10
108	Compact models of negative-capacitance FinFETs: Lumped and distributed charge models. , 2016, , .		69

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109	Surface states in a monolayer MoS ₂ transistor. <i>Journal of Materials Research</i> , 2016, 31, 911-916.	2.6	9
110	Negative Capacitance Behavior in a Leaky Ferroelectric. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 4416-4422.	3.0	108
111	Circuit performance analysis of negative capacitance FinFETs. , 2016, , .		33
112	Analysis and Compact Modeling of Negative Capacitance Transistor with High ON-Current and Negative Output Differential Resistanceâ€”Part I: Model Description. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 4981-4985.	3.0	85
113	Direct Observation of Negative Capacitance in Polycrystalline Ferroelectric HfO ₂ . <i>Advanced Functional Materials</i> , 2016, 26, 8643-8649.	14.9	234
114	Analysis and Compact Modeling of Negative Capacitance Transistor with High ON-Current and Negative Output Differential Resistanceâ€”Part II: Model Validation. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 4986-4992.	3.0	139
115	Effects of the Variation of Ferroelectric Properties on Negative Capacitance FET Characteristics. <i>IEEE Transactions on Electron Devices</i> , 2016, 63, 2197-2199.	3.0	160
116	Single crystal functional oxides on silicon. <i>Nature Communications</i> , 2016, 7, 10547.	12.8	156
117	Negative Capacitance in Short-Channel FinFETs Externally Connected to an Epitaxial Ferroelectric Capacitor. <i>IEEE Electron Device Letters</i> , 2016, 37, 111-114.	3.9	198
118	Deterministic Domain Wall Motion Orthogonal To Current Flow Due To Spin Orbit Torque. <i>Scientific Reports</i> , 2015, 5, 11823.	3.3	64
119	Modeling SiGe FinFETs With Thin Fin and Current-Dependent Source/Drain Resistance. <i>IEEE Electron Device Letters</i> , 2015, 36, 636-638.	3.9	7
120	Sub-60mV-swing negative-capacitance FinFET without hysteresis. , 2015, , .		163
121	Negative capacitance in ferroelectric materials and implications for steep transistors. , 2015, , .		5
122	Large resistivity modulation in mixed-phase metallic systems. <i>Nature Communications</i> , 2015, 6, 5959.	12.8	154
123	Memory leads the way to better computing. <i>Nature Nanotechnology</i> , 2015, 10, 191-194.	31.5	671
124	Switching of perpendicularly polarized nanomagnets with spin orbit torque without an external magnetic field by engineering a tilted anisotropy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 10310-10315.	7.1	236
125	Screening in Ultrashort (5 nm) Channel MoS ₂ Transistors: A Full-Band Quantum Transport Study. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 2457-2463.	3.0	20
126	Negative capacitance in a ferroelectric capacitor. <i>Nature Materials</i> , 2015, 14, 182-186.	27.5	611

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127	Magnetic domain-wall motion twisted by nanoscale probe-induced spin transfer. Physical Review B, 2014, 90, .	3.2	16
128	Can piezoelectricity lead to negative capacitance?., 2014, , .	2	
129	Negative capacitance in ferroelectric materials and its potential use for transistors with <60 mV/decade subthreshold swing., 2014, , .	0	
130	Deterministic switching of ferromagnetism at room temperature using an electric field. Nature, 2014, 516, 370-373.	27.8	570
131	Electrical Characteristics of n, p-In_{0.53}Ga_{0.47}As MOSCAPs With In Situ PEALD-AlN Interfacial Passivation Layer. IEEE Transactions on Electron Devices, 2014, 61, 2774-2778.	3.0	39
132	Room-temperature antiferromagnetic memory resistor. Nature Materials, 2014, 13, 367-374.	27.5	546
133	Spin Hall effect clocking of nanomagnetic logic without a magnetic field. Nature Nanotechnology, 2014, 9, 59-63.	31.5	193
134	Room-Temperature Negative Capacitance in a Ferroelectricâ€“Dielectric Superlattice Heterostructure. Nano Letters, 2014, 14, 5814-5819.	9.1	123
135	Gate Recessed Quasi-Normally OFF Al₂O₃3₁/AlGaN/GaN MIS-HEMT With Low Threshold Voltage Hysteresis Using PEALD AlN Interfacial Passivation Layer. IEEE Electron Device Letters, 2014, 35, 732-734.	3.9	91
136	Low power negative capacitance FETs for future quantum-well body technology., 2013, , .	19	
137	Dependence of intrinsic performance of transition metal dichalcogenide transistors on materials and number of layers at the 5 nm channel-length limit., 2013, , .	20	
138	Device design considerations for ultra-thin body non-hysteretic negative capacitance FETs., 2013, , .	24	
139	Ballistic \$I\$-\$V\$ Characteristics of Short-Channel Graphene Field-Effect Transistors: Analysis and Optimization for Analog and RF Applications. IEEE Transactions on Electron Devices, 2013, 60, 958-964.	3.0	19
140	Nature of magnetic domains in an exchange coupled BiFeO ₃ /CoFe heterostructure. Applied Physics Letters, 2013, 102, .	3.3	22
141	Phenomenological Compact Model for QM Charge Centroid in Multigate FETs. IEEE Transactions on Electron Devices, 2013, 60, 1480-1484.	3.0	21
142	Possible route to low current, high speed, dynamic switching in a perpendicular anisotropy CoFeB-MgO junction using Spin Hall Effect of Ta., 2012, , .	6	
143	Effect of anti-ferromagnet surface moment density on the hysteresis properties of exchange coupled antiferromagnet-ferromagnet systems: The case of bismuth-ferrite. Journal of Applied Physics, 2012, 111, 103904.	2.5	3
144	Phase field model of domain dynamics in micron scale, ultrathin ferroelectric films: Application for multiferroic bismuth ferrite. Journal of Applied Physics, 2012, 112, .	2.5	8

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145	Ferroelectric negative capacitance MOSFET: Capacitance tuning & antiferroelectric operation. , 2011, , .	241	
146	Heterojunction Vertical Band-to-Band Tunneling Transistors for Steep Subthreshold Swing and High on Current. IEEE Electron Device Letters, 2011, 32, 689-691.	3.9	79
147	Proposal for piezoelectric-ferromagnet bilayer based microwave oscillators without any external magnetic field or spin transfer torque. , 2011, , .	0	
148	Scaling study of graphene transistors. , 2011, , .	0	
149	Experimental evidence of ferroelectric negative capacitance in nanoscale heterostructures. Applied Physics Letters, 2011, 99, , .	3.3	256
150	Role of phonon scattering in graphene nanoribbon transistors: Nonequilibrium Greenâ€™s function method with real space approach. Applied Physics Letters, 2011, 98, 203503.	3.3	34
151	Built-in and induced polarization across LaAlO ₃ /SrTiO ₃ heterojunctions. Nature Physics, 2011, 7, 80-86.	16.7	178
152	Monolayer MoS ₂ transistors - ballistic performance limit analysis. , 2011, , .	0	
153	Dual-Source-Line-Bias Scheme to Improve the Read Margin and Sensing Accuracy of STTRAM in Sub-90-nm Nodes. IEEE Transactions on Circuits and Systems II: Express Briefs, 2010, 57, 208-212.	3.0	3
154	Structure and doping effects in carbon heterojunction FETs towards barrier-free inter-band tunneling. , 2010, , .	0	
155	Comparative analysis of the performance of InAs lateral and vertical band-to-band tunneling transistors. , 2010, , .	0	
156	Quantitative model for TMR and spin-transfer torque in MTJ devices. , 2010, , .	21	
157	Switching Energy of Ferromagnetic Logic Bits. IEEE Nanotechnology Magazine, 2009, 8, 505-514.	2.0	57
158	Use of Negative Capacitance to Provide Voltage Amplification for Low Power Nanoscale Devices. Nano Letters, 2008, 8, 405-410.	9.1	1,763
159	Key Role of Non Equilibrium Spin Density in Determining Spin Torque. , 2008, , .	0	
160	Can the subthreshold swing in a classical FET be lowered below 60 mV/decade?. , 2008, , .	88	
161	Simulation of Spin Torque Devices with Inelastic Spin flip Scattering. Device Research Conference, IEEE Annual, 2007, , .	0.0	0
162	Quantum Transport Simulation of Tunneling Based Spin Torque Transfer (STT) Devices: Design Trade offs and Torque Efficiency. , 2007, , .	13	

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163	High-frequency performance projections for ballistic carbon-nanotube transistors. IEEE Nanotechnology Magazine, 2006, 5, 14-22.	2.0	62
164	Integrating Spintronics with Conventional Semiconductor Devices through Exchange Interaction. , 2006, , .	1	
165	An All Electrical Spin Detector. , 2006, , .	1	
166	Self-Consistent Simulation of Hybrid Spintronic Devices. , 2006, , .	11	
167	Transport Effects on Signal Propagation in Quantum Wires. IEEE Transactions on Electron Devices, 2005, 52, 1734-1742.	3.0	167
168	An All Electrical Spin Detector. , 0, , .	0	