

Yang-Kyu Choi

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.

393
papers

11,590
citations

51
h-index

92
g-index

432
ext. papers

13,701
ext. citations

6.1
avg, IF

6.5
L-index

#	Paper	IF	Citations
393	Self-Powered Artificial Mechanoreceptor Based on Triboelectrification for a Neuromorphic Tactile System.. <i>Advanced Science</i> , 2022 , e2105076	13.6	6
392	Ultra-fast data sanitization of SRAM by back-biasing to resist a cold boot attack.. <i>Scientific Reports</i> , 2022 , 12, 35	4.9	
391	Reliability Improvement of Gate-All-Around SONOS Memory by Joule Heat From Gate-Induced Drain Leakage Current. <i>IEEE Transactions on Electron Devices</i> , 2022 , 69, 115-119	2.9	1
390	Regression Model-Based AMS Circuit Optimization Technique Utilizing Parameterized Operating Condition. <i>Electronics (Switzerland)</i> , 2022 , 11, 408	2.6	0
389	Curing of 1-Transistor-DRAM by Joule Heat from Punch-through Current. <i>IEEE Electron Device Letters</i> , 2022 , 1-1	4.4	1
388	Mnemonic-opto-synaptic transistor for in-sensor vision system.. <i>Scientific Reports</i> , 2022 , 12, 1818	4.9	1
387	A Steep-Slope Phenomenon by Gate Charge Pumping in a MOSFET. <i>IEEE Electron Device Letters</i> , 2022 , 1-1	4.4	
386	A flutter-driven triboelectric nanogenerator for harvesting energy of gentle breezes with a rear-fixed fluttering film. <i>Nano Energy</i> , 2022 , 107197	17.1	4
385	A triboelectric nanogenerator implemented with an acoustic foam for a self-driven silent tire. <i>Nano Energy</i> , 2022 , 96, 107090	17.1	0
384	Artificial Olfactory Neuron for an In-Sensor Neuromorphic Nose.. <i>Advanced Science</i> , 2022 , e2106017	13.6	7
383	CMOS Ternary Logic with a Biristor Threshold Switch for Low Static Power Consumption. <i>IEEE Electron Device Letters</i> , 2022 , 1-1	4.4	
382	A Junctionless Single Transistor Neuron With Vertically Stacked Multiple Nanowires for Highly Scalable Neuromorphic Hardware. <i>IEEE Transactions on Electron Devices</i> , 2022 , 1-5	2.9	0
381	Improved Self-Curing Effect in a MOSFET with Gate Biasing. <i>IEEE Electron Device Letters</i> , 2021 , 1-1	4.4	1
380	A Vertical Silicon Nanowire Based Single Transistor Neuron with Excitatory, Inhibitory, and Myelination Functions for Highly Scalable Neuromorphic Hardware. <i>Small</i> , 2021 , 17, e2103775	11	2
379	Lateral profiling of gate dielectric damage by off-state stress and positive-bias temperature instability. <i>Microelectronics Reliability</i> , 2021 , 127, 114383	1.2	0
378	All-Solid-State Ion Synaptic Transistor for Wafer-Scale Integration with Electrolyte of a Nanoscale Thickness. <i>Advanced Functional Materials</i> , 2021 , 31, 2010971	15.6	13
377	A Poly-Crystalline Silicon Nanowire Transistor with Independently Controlled Double-Gate for Physically Unclonable Function by Multi-States and Self-Destruction. <i>Advanced Electronic Materials</i> , 2021 , 7, 2000989	6.4	2

376	Vertical InGaAs Biristor for Sub-1 V Operation. <i>IEEE Electron Device Letters</i> , 2021 , 42, 681-683	4.4	1
375	Hybrid Gate Dielectric of MoS2 Transistors for Enhanced Photo-Electronic Stability. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2100599	4.6	2
374	Ternary logic decoder using independently controlled double-gate Si-NW MOSFETs. <i>Scientific Reports</i> , 2021 , 11, 13018	4.9	2
373	Impact of Post-Metal Annealing With Deuterium or Nitrogen for Curing a Gate Dielectric Using Joule Heat Driven by Punch-Through Current. <i>IEEE Electron Device Letters</i> , 2021 , 42, 276-279	4.4	0
372	A Temperature Sensor with a Thermillator. <i>IEEE Electron Device Letters</i> , 2021 , 1-1	4.4	0
371	Low-Power True Random Number Generator Based on Randomly Distributed Carbon Nanotube Networks. <i>IEEE Access</i> , 2021 , 1-1	3.5	0
370	Triboelectric Nanogenerator: Structure, Mechanism, and Applications. <i>ACS Nano</i> , 2021 , 15, 258-287	16.7	75
369	Multi-functional logic circuits composed of ultra-thin electrolyte-gated transistors with wafer-scale integration. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 7222-7227	7.1	2
368	Investigation of Leaky Characteristic in a Single-Transistor-Based Leaky Integrate-and-Fire Neuron. <i>IEEE Transactions on Electron Devices</i> , 2021 , 1-4	2.9	1
367	A Single Transistor-Based Threshold Switch for a Bio-Inspired Reconfigurable Threshold Logic. <i>Advanced Electronic Materials</i> , 2021 , 7, 2100117	6.4	3
366	Data Sanitization of SRAM by Thermal Distortion. <i>IEEE Transactions on Electron Devices</i> , 2021 , 68, 3706-3710	3.0	0
365	Off-state leakage in MOSFET considering source/drain extension regions. <i>Semiconductor Science and Technology</i> , 2021 , 36, 085018	1.8	0
364	Cointegration of single-transistor neurons and synapses by nanoscale CMOS fabrication for highly scalable neuromorphic hardware. <i>Science Advances</i> , 2021 , 7,	14.3	14
363	A Low-Power Class-C Voltage-Controlled Oscillator with Robust Start-Up and Compact High-Q Capacitor Array. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2021 , 1-1	3.5	0
362	One Biristor-Two Transistor (1B2T) Neuron With Reduced Output Voltage and Pulsewidth for Energy-Efficient Neuromorphic Hardware. <i>IEEE Transactions on Electron Devices</i> , 2021 , 68, 430-433	2.9	4
361	3D Stackable Broadband Photoresponsive InGaAs Biristor Neuron for a Neuromorphic Visual System with Near 1 V Operation 2021 ,		3
360	A Single Transistor Neuron With Independently Accessed Double-Gate for Excitatory-Inhibitory Function and Tunable Firing Threshold Voltage. <i>IEEE Electron Device Letters</i> , 2020 , 41, 1157-1160	4.4	14
359	Triboelectric nanogenerator for a repairable transistor with self-powered electro-thermal annealing. <i>Nano Energy</i> , 2020 , 76, 105000	17.1	4

358	All 3D-Printed Flexible ZnO UV Photodetector on an Ultraflat Substrate. <i>ACS Sensors</i> , 2020 , 5, 1028-1032	2.2	18
357	On-Demand Printing of Wearable Thermotherapy Pad. <i>Advanced Healthcare Materials</i> , 2020 , 9, e1901575	5.0	9
356	Curing of Aged Gate Dielectric by the Self-Heating Effect in MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 777-788	2.9	9
355	A self-powered character recognition device based on a triboelectric nanogenerator. <i>Nano Energy</i> , 2020 , 70, 104534	17.1	10
354	All-Printed In-Plane Supercapacitors by Sequential Additive Manufacturing Process. <i>ACS Applied Energy Materials</i> , 2020 , 3, 4965-4973	6.1	17
353	Rapid prototyping of microwave metasurfaces by ink-jet printing on polyester (PET) transparencies. <i>Flexible and Printed Electronics</i> , 2020 , 5, 045003	3.1	1
352	. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 5505-5510	2.9	
351	Analysis of damage curing in a MOSFET with joule heat generated by forward junction current at the source and drain. <i>Microelectronics Reliability</i> , 2020 , 104, 113548	1.2	1
350	Mimicry of Excitatory and Inhibitory Artificial Neuron With Leaky Integrate-and-Fire Function by a Single MOSFET. <i>IEEE Electron Device Letters</i> , 2020 , 41, 208-211	4.4	22
349	A Study of High-Temperature Effects on an Asymmetrically Doped Vertical Pillar-Type Field-Effect Transistor. <i>IEEE Nanotechnology Magazine</i> , 2020 , 19, 52-55	2.6	4
348	A Strategy for Optimizing Low Operating Voltage in a Silicon Biristor. <i>IEEE Nanotechnology Magazine</i> , 2020 , 19, 5-10	2.6	1
347	High-Performance Field-Effect Transistor and Logic Gates Based on GaS-MoS van der Waals Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 5106-5112	9.5	8
346	Extraction of Interface Trap Density Through Synchronized Optical Charge Pumping in Gate-All-Around MOSFETs. <i>IEEE Electron Device Letters</i> , 2020 , 41, 1629-1632	4.4	2
345	Bioinspired Photoresponsive Single Transistor Neuron for a Neuromorphic Visual System. <i>Nano Letters</i> , 2020 , 20, 8781-8788	11.5	19
344	Random number generator with a chaotic wind-driven triboelectric energy harvester. <i>Nano Energy</i> , 2020 , 78, 105275	17.1	6
343	Quantitative Analysis of High-Pressure Deuterium Annealing Effects on Vertically Stacked Gate-All-Around SONOS Memory. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 3903-3907	2.9	3
342	Low-Frequency Noise Characteristics Under the OFF-State Stress. <i>IEEE Transactions on Electron Devices</i> , 2020 , 67, 4366-4371	2.9	4
341	Reconfigurable Beamforming Silicon Plasma Antenna with Vertical PIN Diode Array. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000257	6.4	

340	Noninverting BuckBoost DCDC Converter Using a Duobinary-Encoded Single-Bit Delta-Sigma Modulator. <i>IEEE Transactions on Power Electronics</i> , 2020 , 35, 484-495	7.2	8
339	Si-MoS Vertical Heterojunction for a Photodetector with High Responsivity and Low Noise Equivalent Power. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 7626-7634	9.5	36
338	Nanoscale FET-Based Transduction toward Sensitive Extended-Gate Biosensors. <i>ACS Sensors</i> , 2019 , 4, 1724-1729	9.2	17
337	A study of the charge distribution and output characteristics of an ultra-thin tribo-dielectric layer. <i>Nano Energy</i> , 2019 , 62, 458-464	17.1	5
336	Physically Unclonable Function by an All-Printed Carbon Nanotube Network. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 1162-1168	4	7
335	Bioinspired Polydopamine-Based Resistive-Switching Memory on Cotton Fabric for Wearable Neuromorphic Device Applications. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900151	6.8	17
334	Carbon Nanotube Based X-Ray Detector. <i>ACS Sensors</i> , 2019 , 4, 1097-1102	9.2	5
333	Suppression of Self-Heating Effects in 3-D V-NAND Flash Memory Using a Plugged Pillar-Shaped Heat Sink. <i>IEEE Electron Device Letters</i> , 2019 , 40, 212-215	4.4	7
332	Self-powered wearable touchpad composed of all commercial fabrics utilizing a crossline array of triboelectric generators. <i>Nano Energy</i> , 2019 , 65, 103994	17.1	22
331	Joule-Heated and Suspended Silicon Nanowire Based Sensor for Low-Power and Stable Hydrogen Detection. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 42349-42357	9.5	12
330	A Comparative Study of the Curing Effects of Local and Global Thermal Annealing on a FinFET. <i>IEEE Journal of the Electron Devices Society</i> , 2019 , 7, 954-958	2.3	4
329	Curing of Hot-Carrier Induced Damage by Gate-Induced Drain Leakage Current in Gate-All-Around FETs. <i>IEEE Electron Device Letters</i> , 2019 , 40, 1909-1912	4.4	10
328	A 12 Gb/s 1.59 mW/Gb/s Input-Data-Jitter-Tolerant Injection-Type CDR With Super-Harmonic Injection-Locking in 65-nm CMOS. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2019 , 66, 1972-1976	3.5	2
327	Effect of OFF-State Stress on Gate-Induced Drain Leakage by Interface Traps in Buried-Gate FETs. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 5126-5132	2.9	3
326	Power reduction for recovery of a FinFET by electrothermal annealing. <i>Solid-State Electronics</i> , 2019 , 151, 6-10	1.7	2
325	Self-sustainable wind speed sensor system with omni-directional wind based triboelectric generator. <i>Nano Energy</i> , 2019 , 55, 115-122	17.1	23
324	Electro-Thermal Erasing at 104-Fold Faster Speeds in Charge-Trap Flash Memory. <i>IEEE Electron Device Letters</i> , 2019 , 40, 196-199	4.4	5
323	Multilevel States of Nano-Electromechanical Switch for a PUF-Based Security Device. <i>Small</i> , 2019 , 15, e1803825	11	6

322	A Low Switching Noise and High-Efficiency Buck Converter Using a Continuous-Time Reconfigurable Delta-Sigma Modulator. <i>IEEE Transactions on Power Electronics</i> , 2018 , 33, 10501-10511	7.2	12
321	Low-Temperature Fabrication of Robust, Transparent, and Flexible Thin-Film Transistors with a Nanolaminated Insulator. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15829-15840	9.5	18
320	Multidirection and Multiamplitude Triboelectric Nanogenerator Composed of Porous Conductive Polymer with Prolonged Time of Current Generation. <i>Advanced Energy Materials</i> , 2018 , 8, 1800654	21.8	17
319	Demonstration of a Curable Nanowire FinFET Using Punchthrough Current to Repair Hot-Carrier Damage. <i>IEEE Electron Device Letters</i> , 2018 , 39, 180-183	4.4	12
318	A Comparative Study on Hot-Carrier Injection in 5-Story Vertically Integrated Inversion-Mode and Junctionless-Mode Gate-All-Around MOSFETs. <i>IEEE Electron Device Letters</i> , 2018 , 39, 4-7	4.4	14
317	Metallic TiCT MXene Gas Sensors with Ultrahigh Signal-to-Noise Ratio. <i>ACS Nano</i> , 2018 , 12, 986-993	16.7	664
316	Enhanced transconductance in a double-gate graphene field-effect transistor. <i>Solid-State Electronics</i> , 2018 , 141, 65-68	1.7	5
315	Localized Electrothermal Annealing with Nanowatt Power for a Silicon Nanowire Field-Effect Transistor. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 4838-4843	9.5	7
314	A multi-directional wind based triboelectric generator with investigation of frequency effects. <i>Extreme Mechanics Letters</i> , 2018 , 19, 46-53	3.9	7
313	Quantitative Analysis of Deuterium Annealing Effect on Poly-Si TFTs by Low Frequency Noise and DC I_{DS} Characterization. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 1640-1644	2.9	6
312	Highly Biased Linear Condition Method for Separately Extracting Source and Drain Resistance in MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 419-423	2.9	5
311	A Low-Power Continuous-Time Delta-Sigma Modulator Using a Resonant Single Op-Amp Third-Order Loop Filter. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018 , 65, 854-858	3.5	6
310	Self-powered data erasing of nanoscale flash memory by triboelectricity. <i>Nano Energy</i> , 2018 , 52, 63-70	17.1	9
309	Triboelectric nanogenerator based on rolling motion of beads for harvesting wind energy as active wind speed sensor. <i>Nano Energy</i> , 2018 , 52, 256-263	17.1	46
308	Sanitization of Data in Nanoscale Flash Memory by Thermal Erasing and Reuse of Storage. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018 , 215, 1800194	1.6	2
307	A 0.65-V, 11.2-Gb/s Power Noise Tolerant Source-Synchronous Injection-Locked Receiver With Direct DTLB DFE. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2018 , 65, 1564-1568	3.5	3
306	Reply to Comments by Ortiz-Conde et al.. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 4022-4024	2.9	
305	Ferromagnetic nanoparticle-embedded hybrid nanogenerator for harvesting omnidirectional vibration energy. <i>Nanoscale</i> , 2018 , 10, 12276-12283	7.7	15

304	A Recoverable Synapse Device Using a Three-Dimensional Silicon Transistor. <i>Advanced Functional Materials</i> , 2018 , 28, 1804844	15.6	22
303	. <i>IEEE Transactions on Electron Devices</i> , 2018 , 65, 5208-5212	2.9	4
302	A frequency reconfigurable dipole antenna with solid-state plasma in silicon. <i>Scientific Reports</i> , 2018 , 8, 14996	4.9	5
301	On-Chip Curing by Microwave for Long Term Usage of Electronic Devices in Harsh Environments. <i>Scientific Reports</i> , 2018 , 8, 14953	4.9	3
300	Electrothermal Annealing to Enhance the Electrical Performance of an Exfoliated MoS2 Field-Effect Transistor. <i>IEEE Electron Device Letters</i> , 2018 , 1-1	4.4	6
299	Self-powered wearable keyboard with fabric based triboelectric nanogenerator. <i>Nano Energy</i> , 2018 , 53, 596-603	17.1	44
298	Disk-based triboelectric nanogenerator operated by rotational force converted from linear force by a gear system. <i>Nano Energy</i> , 2018 , 50, 489-496	17.1	35
297	First Demonstration of a Logic-Process Compatible Junctionless Ferroelectric FinFET Synapse for Neuromorphic Applications. <i>IEEE Electron Device Letters</i> , 2018 , 39, 1445-1448	4.4	81
296	Tunneling Effects in a Charge-Plasma Dopingless Transistor. <i>IEEE Nanotechnology Magazine</i> , 2017 , 16, 315-320	2.6	12
295	Triboelectrification driven fin-fact (flip-flop actuated channel transistor) for security application 2017 ,		1
294	Ultra-low power hydrogen sensor by suspended and palladium coated silicon nanowire 2017 ,		1
293	A SONOS device with a separated charge trapping layer for improvement of charge injection. <i>AIP Advances</i> , 2017 , 7, 035205	1.5	3
292	Direct-laser-patterned friction layer for the output enhancement of a triboelectric nanogenerator. <i>Nano Energy</i> , 2017 , 35, 379-386	17.1	48
291	Low-Frequency Noise Characteristics in SONOS Flash Memory With Vertically Stacked Nanowire FETs. <i>IEEE Electron Device Letters</i> , 2017 , 38, 40-43	4.4	17
290	Large-sized sandpaper coated with solution-processed aluminum for a triboelectric nanogenerator with reliable durability. <i>RSC Advances</i> , 2017 , 7, 137-144	3.7	16
289	Investigation of Self-Heating Effects in Gate-All-Around MOSFETs With Vertically Stacked Multiple Silicon Nanowire Channels. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 4393-4399	2.9	21
288	. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 5223-5229	2.9	3
287	Surface structural analysis of a friction layer for a triboelectric nanogenerator. <i>Nano Energy</i> , 2017 , 42, 34-42	17.1	52

286	Improved Technique for Extraction of Effective Mobility by Considering Gate Bias-Dependent Inversion Charges in a Floating-Body Si/SiGe pMOSFET. <i>Journal of Nanoscience and Nanotechnology</i> , 2017 , 17, 3247-3250	1.3	0
285	Charge and dielectric effects of biomolecules on electrical characteristics of nanowire FET biosensors. <i>Applied Physics Letters</i> , 2017 , 111, 113701	3.4	12
284	Investigation of Border Trap Characteristics in the AlON/GeO ₂ /Ge Gate Stacks. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 3998-4001	2.9	2
283	Functional Circuitry on Commercial Fabric via Textile-Compatible Nanoscale Film Coating Process for Fibertronics. <i>Nano Letters</i> , 2017 , 17, 6443-6452	11.5	47
282	A Novel Technique for Curing Hot-Carrier-Induced Damage by Utilizing the Forward Current of the PN-Junction in a MOSFET. <i>IEEE Electron Device Letters</i> , 2017 , 38, 1012-1014	4.4	16
281	Comprehensive Study on the Relation Between Low-Frequency Noise and Asymmetric Parasitic Resistances in a Vertical Pillar-Type FET. <i>IEEE Electron Device Letters</i> , 2017 , 38, 1008-1011	4.4	4
280	Characterization of intrinsic subgap density-of-states in exfoliated MoS ₂ FETs using a multi-frequency capacitance-conductance technique. <i>AIP Advances</i> , 2017 , 7, 075304	1.5	7
279	Nano-electromechanical Switch Based on a Physical Unclonable Function for Highly Robust and Stable Performance in Harsh Environments. <i>ACS Nano</i> , 2017 , 11, 12547-12552	16.7	18
278	Reconfigurable Yagi-Uda antenna based on a silicon reflector with a solid-state plasma. <i>Scientific Reports</i> , 2017 , 7, 17232	4.9	6
277	Electro-Thermal Annealing Method for Recovery of Cyclic Bending Stress in Flexible a-IGZO TFTs. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 3189-3192	2.9	18
276	Editors' Choice Vertically Integrated Nanowire-Based Zero-Capacitor Dynamic Random Access Memory. <i>ECS Journal of Solid State Science and Technology</i> , 2017 , 6, Q1-Q5	2	1
275	Flammable carbon nanotube transistors on a nitrocellulose paper substrate for transient electronics. <i>Nano Research</i> , 2017 , 10, 87-96	10	26
274	Ferrofluid-based triboelectric-electromagnetic hybrid generator for sensitive and sustainable vibration energy harvesting. <i>Nano Energy</i> , 2017 , 31, 233-238	17.1	88
273	LF Noise Analysis for Trap Recovery in Gate Oxides Using Built-In Joule Heater. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 5081-5086	2.9	6
272	Feasibility Study of Extended-Gate-Type Silicon Nanowire Field-Effect Transistors for Neural Recording. <i>Sensors</i> , 2017 , 17,	3.8	4
271	3D Carbon Electrode Based Triboelectric Nanogenerator. <i>Advanced Materials Technologies</i> , 2016 , 1, 1600180	13	13
270	Electrothermal Annealing (ETA) Method to Enhance the Electrical Performance of Amorphous-Oxide-Semiconductor (AOS) Thin-Film Transistors (TFTs). <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 23820-6	9.5	13
269	Three-Dimensional Fin-Structured Semiconducting Carbon Nanotube Network Transistor. <i>ACS Nano</i> , 2016 , 10, 10894-10900	16.7	14

268	A Superamphiphobic Sponge with Mechanical Durability and a Self-Cleaning Effect. <i>Scientific Reports</i> , 2016 , 6, 29993	4.9	22
267	Local Electro-Thermal Annealing for Repair of Total Ionizing Dose-Induced Damage in Gate-All-Around MOSFETs. <i>IEEE Electron Device Letters</i> , 2016 , 37, 843-846	4.4	15
266	Multilayer Graphene with a Rippled Structure as a Spacer for Improving Plasmonic Coupling. <i>Advanced Functional Materials</i> , 2016 , 26, 5093-5101	15.6	28
265	A Triboelectric Sponge Fabricated from a Cube Sugar Template by 3D Soft Lithography for Superhydrophobicity and Elasticity. <i>Advanced Electronic Materials</i> , 2016 , 2, 1500331	6.4	52
264	. <i>IEEE Electron Device Letters</i> , 2016 , 37, 190-192	4.4	7
263	Nanogap Embedded Transistor for Investigation of Charge Properties in DNA. <i>IEEE Nanotechnology Magazine</i> , 2016 , 15, 188-192	2.6	4
262	Self-Destructible Fin Flip-Flop Actuated Channel Transistor. <i>IEEE Electron Device Letters</i> , 2016 , 37, 130-134	4.4	9
261	Comprehensive Analysis of Gate-Induced Drain Leakage in Vertically Stacked Nanowire FETs: Inversion-Mode Versus Junctionless Mode. <i>IEEE Electron Device Letters</i> , 2016 , 37, 541-544	4.4	50
260	Self-Curable Gate-All-Around MOSFETs Using Electrical Annealing to Repair Degradation Induced From Hot-Carrier Injection. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 910-915	2.9	25
259	A Separate Extraction Method for Asymmetric Source and Drain Resistances Using Frequency-Dispersive β Characteristics in Exfoliated MoS ₂ FET. <i>IEEE Electron Device Letters</i> , 2016 , 37, 231-233	4.4	5
258	A Vertically Integrated Junctionless Nanowire Transistor. <i>Nano Letters</i> , 2016 , 16, 1840-7	11.5	48
257	A 21%-Jitter-Improved Self-Aligned Dividerless Injection-Locked PLL With a VCO Control Voltage Ripple-Compensated Phase Detector. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2016 , 63, 733-737	3.5	3
256	Triboelectric Nanogenerator Based on the Internal Motion of Powder with a Package Structure Design. <i>ACS Nano</i> , 2016 , 10, 1017-24	16.7	39
255	Functionalized porous Si nanowires for selective and simultaneous electrochemical detection of Cd(II) and Pb(II) ions. <i>Electrochimica Acta</i> , 2016 , 211, 998-1005	6.7	43
254	Self-Powered Ion Concentration Sensor with Triboelectricity from Liquid-Solid Contact Electrification. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600006	6.4	42
253	Controllable electrical and physical breakdown of poly-crystalline silicon nanowires by thermally assisted electromigration. <i>Scientific Reports</i> , 2016 , 6, 19314	4.9	11
252	Impact of crystalline damage on a vertically integrated junctionless nanowire transistor. <i>Applied Physics Letters</i> , 2016 , 109, 183108	3.4	6
251	Logic circuits composed of flexible carbon nanotube thin-film transistor and ultra-thin polymer gate dielectric. <i>Scientific Reports</i> , 2016 , 6, 26121	4.9	24

250	Physically Transient Memory on a Rapidly Dissoluble Paper for Security Application. <i>Scientific Reports</i> , 2016 , 6, 38324	4.9	30
249	Ink-jet printed semiconducting carbon nanotube ambipolar transistors and inverters with chemical doping technique using polyethyleneimine. <i>Applied Physics Letters</i> , 2016 , 109, 263103	3.4	11
248	Foldable and Disposable Memory on Paper. <i>Scientific Reports</i> , 2016 , 6, 38389	4.9	36
247	Temperature measurement of Joule heated silicon micro/nanowires using selectively decorated quantum dots. <i>Nanotechnology</i> , 2016 , 27, 505705	3.4	2
246	Sustainable electronics for nano-spacecraft in deep space missions 2016 ,		11
245	Triboelectric energy harvester with an ultra-thin tribo-dielectric layer by initiated CVD and investigation of underlying physics in the triboelectricity 2016 ,		1
244	Single nanowire on graphene (SNOG) as an efficient, reproducible, and stable SERS-active platform. <i>Nanoscale</i> , 2016 , 8, 8878-86	7.7	21
243	Hybrid energy harvester with simultaneous triboelectric and electromagnetic generation from an embedded floating oscillator in a single package. <i>Nano Energy</i> , 2016 , 23, 50-59	17.1	66
242	Triboelectric nanogenerator with nanostructured metal surface using water-assisted oxidation. <i>Nano Energy</i> , 2016 , 21, 258-264	17.1	42
241	Investigation of Low-Frequency Noise in Nonvolatile Memory Composed of a Gate- All-Around Junctionless Nanowire FET. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 2210-2213	2.9	16
240	Controlled anisotropic wetting of scalloped silicon nanogroove. <i>RSC Advances</i> , 2016 , 6, 41914-41918	3.7	14
239	Joule Heating to Enhance the Performance of a Gate-All-Around Silicon Nanowire Transistor. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 2288-2292	2.9	7
238	Vertically Integrated Nanowire-Based Unified Memory. <i>Nano Letters</i> , 2016 , 16, 5909-16	11.5	14
237	Self-powered electro-coagulation system driven by a wind energy harvesting triboelectric nanogenerator for decentralized water treatment. <i>Nano Energy</i> , 2016 , 28, 288-295	17.1	46
236	Optimization of the intrinsic length of a PIN diode for a reconfigurable antenna 2016 ,		2
235	Performance-enhanced triboelectric nanogenerator using the glass transition of polystyrene. <i>Nano Energy</i> , 2016 , 27, 306-312	17.1	23
234	Threshold Voltage Tuning Technique in Gate-All-Around MOSFETs by Utilizing Gate Electrode With Potential Distribution. <i>IEEE Electron Device Letters</i> , 2016 , 37, 1391-1394	4.4	3
233	Self-heated silicon nanowires for high performance hydrogen gas detection. <i>Nanotechnology</i> , 2015 , 26, 095501	3.4	40

232	Investigation of Physically Unclonable Functions Using Flash Memory for Integrated Circuit Authentication. <i>IEEE Nanotechnology Magazine</i> , 2015 , 14, 384-389	2.6	22
231	A Highly Responsive Silicon Nanowire/Amplifier MOSFET Hybrid Biosensor. <i>Scientific Reports</i> , 2015 , 5, 12286	4.9	41
230	Direct Observation of a Carbon Filament in Water-Resistant Organic Memory. <i>ACS Nano</i> , 2015 , 9, 7306-136.7	13.7	65
229	. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 2710-2716	2.9	13
228	Vertically stacked thin triboelectric nanogenerator for wind energy harvesting. <i>Nano Energy</i> , 2015 , 14, 201-208	17.1	132
227	Highly uniform carbon nanotube nanomesh network transistors. <i>Nano Research</i> , 2015 , 8, 1320-1326	10	11
226	A Core Compact Model for Multiple-Gate Junctionless FETs. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 2285-2291	2.9	9
225	Impact of contact pressure on output voltage of triboelectric nanogenerator based on deformation of interfacial structures. <i>Nano Energy</i> , 2015 , 17, 63-71	17.1	88
224	Vertically Integrated Multiple Nanowire Field Effect Transistor. <i>Nano Letters</i> , 2015 , 15, 8056-61	11.5	45
223	3-Dimensional broadband energy harvester based on internal hydrodynamic oscillation with a package structure. <i>Nano Energy</i> , 2015 , 17, 82-90	17.1	47
222	Compensation technique for time alignment of envelope and phase paths in an envelope delta-sigma modulator. <i>IEICE Electronics Express</i> , 2015 , 12, 20150372-20150372	0.5	0
221	Surface Engineering of Triboelectric Nanogenerator with an Electrodeposited Gold Nanoflower Structure. <i>Scientific Reports</i> , 2015 , 5, 13866	4.9	40
220	Floating Oscillator-Embedded Triboelectric Generator for Versatile Mechanical Energy Harvesting. <i>Scientific Reports</i> , 2015 , 5, 16409	4.9	30
219	Investigation of optimal hydrogen sensing performance in semiconducting carbon nanotube network transistors with palladium electrodes. <i>Applied Physics Letters</i> , 2015 , 107, 193108	3.4	9
218	Experimental study on quantum mechanical effect for insensitivity of threshold voltage against temperature variation in strained SOI MOSFETs 2015 ,		4
217	√16 spaced single RF chain MIMO antenna using low-power CMOS switches 2015 ,		1
216	Self-cleaning hybrid energy harvester to generate power from raindrop and sunlight. <i>Nano Energy</i> , 2015 , 12, 636-645	17.1	118
215	High-performance nanopattern triboelectric generator by block copolymer lithography. <i>Nano Energy</i> , 2015 , 12, 331-338	17.1	101

214	Multiplex electrical detection of avian influenza and human immunodeficiency virus with an underlap-embedded silicon nanowire field-effect transistor. <i>Biosensors and Bioelectronics</i> , 2014 , 55, 162-7 ^{11.8}	30
213	Evolution of Unified-RAM: 1T-DRAM and BE-SONOS Built on a Highly Scaled Vertical Channel. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 60-65	2.9 9
212	Optimization of Bias Schemes for Long-Term Endurable 1T-DRAM Through the Use of the Biristor Mode Operation. <i>IEEE Electron Device Letters</i> , 2014 , 35, 220-222	4.4 5
211	A Bandgap-Engineered Silicon-Germanium Biristor for Low-Voltage Operation. <i>IEEE Transactions on Electron Devices</i> , 2014 , 61, 2-7	2.9 19
210	A mechanical and electrical transistor structure (METS) with a sub-2 nm nanogap for effective voltage scaling. <i>Nanoscale</i> , 2014 , 6, 7799-804	7.7 12
209	First Demonstration of Ultra-Thin SiGe-Channel Junctionless Accumulation-Mode (JAM) Bulk FinFETs on Si Substrate with PN Junction-Isolation Scheme. <i>IEEE Journal of the Electron Devices Society</i> , 2014 , 2, 123-127	2.3 6
208	Influence of Total Ionizing Dose on Sub-100 nm Gate-All-Around MOSFETs. <i>IEEE Transactions on Nuclear Science</i> , 2014 , 61, 1420-1425	1.7 10
207	Electrical biomolecule detection using nanopatterned silicon via block copolymer lithography. <i>Small</i> , 2014 , 10, 337-43	11 42
206	Accurate extraction of mobility in carbon nanotube network transistors using C-V and I-V measurements. <i>Applied Physics Letters</i> , 2014 , 105, 212103	3.4 12
205	Design and measurement of 500-MS/s Σ modulator with half-delayed return-to-zero feedback DAC 2014 ,	2
204	Flexible high-performance nonvolatile memory by transferring GAA silicon nanowire SONOS onto a plastic substrate 2014 ,	1
203	A Novel FinFET With High-Speed and Prolonged Retention for Dynamic Memory. <i>IEEE Electron Device Letters</i> , 2014 , 35, 1236-1238	4.4 10
202	High-performance thin-film transistors produced from highly separated solution-processed carbon nanotubes. <i>Applied Physics Letters</i> , 2014 , 104, 143508	3.4 17
201	Nature-replicated nano-in-micro structures for triboelectric energy harvesting. <i>Small</i> , 2014 , 10, 3887-94 ¹¹	133
200	Palladium nanoparticle decorated silicon nanowire field-effect transistor with side-gates for hydrogen gas detection. <i>Applied Physics Letters</i> , 2014 , 104, 013508	3.4 51
199	Vacuum gate dielectric gate-all-around nanowire for hot carrier injection and bias temperature instability free transistor. <i>Applied Physics Letters</i> , 2014 , 104, 253506	3.4 18
198	Fabrication of Nanowires and Their Applications 2014 , 89-128	
197	. <i>IEEE Electron Device Letters</i> , 2013 , 34, 1479-1481	4.4 43

196	Piezoelectric nanogenerator with a nanoforest structure. <i>Nano Energy</i> , 2013 , 2, 1142-1148	17.1	37
195	Analytical Threshold Voltage Model of Junctionless Double-Gate MOSFETs With Localized Charges. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 2951-2955	2.9	36
194	CRP detection from serum for chip-based point-of-care testing system. <i>Biosensors and Bioelectronics</i> , 2013 , 41, 322-7	11.8	51
193	Design strategy for a piezoelectric nanogenerator with a well-ordered nanoshell array. <i>ACS Nano</i> , 2013 , 7, 10773-9	16.7	51
192	Improvement of Sensitivity and Limit of Detection in a Nanogap Biosensor by Controlling Surface Wettability. <i>BioNanoScience</i> , 2013 , 3, 192-197	3.4	9
191	Investigation of Silicon Nanowire Gate-All-Around Junctionless Transistors Built on a Bulk Substrate. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1355-1360	2.9	89
190	A biristor based on a floating-body silicon nanowire for biosensor applications. <i>Applied Physics Letters</i> , 2013 , 102, 043701	3.4	8
189	A pH sensor with a double-gate silicon nanowire field-effect transistor. <i>Applied Physics Letters</i> , 2013 , 102, 083701	3.4	36
188	Surface engineering for enhancement of sensitivity in an underlap-FET biosensor by control of wettability. <i>Biosensors and Bioelectronics</i> , 2013 , 41, 867-70	11.8	39
187	Investigation of gate length and fringing field effects for program and erase efficiency in gate-all-around SONOS memory cells. <i>Solid-State Electronics</i> , 2013 , 79, 7-10	1.7	2
186	Advanced Class-S transmitter with tri-level delta-sigma modulator 2013 ,		1
185	Latch-up based bidirectional npn selector for bipolar resistance-change memory. <i>Applied Physics Letters</i> , 2013 , 103, 033505	3.4	19
184	Transfer of functional memory devices to any substrate. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 326-331	2.5	7
183	Dielectric Detection Using Biochemical Assays 2013 , 97-123		2
182	A New Charge-Pumping Technique for a Double-Gated SOI MOSFET Using Pulsed Drain Current Transients. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 241-246	2.9	1
181	. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 367-373	2.9	13
180	A Compact Model of Quantum Electron Density at the Subthreshold Region for Double-Gate Junctionless Transistors. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 1008-1012	2.9	70
179	A Dual-Gate Field-Effect Transistor for Label-Free Electrical Detection of Avian Influenza. <i>BioNanoScience</i> , 2012 , 2, 35-41	3.4	10

178	A 9-bit 100-MS/s flash-SAR ADC without track-and-hold circuits 2012 ,		3
177	Origin of transient V _{th} shift after erase and its impact on 2D/3D structure charge trap flash memory cell operations 2012 ,		3
176	20-MHz bandwidth continuous-time delta-sigma modulator for EPWM transmitter 2012 ,		3
175	A Gate-Dielectric-Last Process via Photosolidification of Liquid Resin. <i>IEEE Electron Device Letters</i> , 2012 , 33, 746-748	4.4	1
174	Physical observation of a thermo-morphic transition in a silicon nanowire. <i>ACS Nano</i> , 2012 , 6, 2378-84	16.7	10
173	A prototype high sensitivity load cell using single walled carbon nanotube strain gauges. <i>Sensors and Actuators A: Physical</i> , 2012 , 180, 120-126	3.9	38
172	Liquid gate dielectric field effect transistor for a radiation nose. <i>Sensors and Actuators A: Physical</i> , 2012 , 182, 1-5	3.9	2
171	Self-aligned nanoforest in silicon nanowire for sensitive conductance modulation. <i>Nano Letters</i> , 2012 , 12, 5603-8	11.5	16
170	A fully-microfabricated SWCNT film strain sensor. <i>Journal of the Korean Physical Society</i> , 2012 , 61, 1656-1659		3
169	Photoactive memory by a Si-nanowire field-effect transistor. <i>ACS Nano</i> , 2012 , 6, 1449-54	16.7	11
168	Hybrid porphyrin-silicon nanowire field-effect transistor by opto-electrical excitation. <i>ACS Nano</i> , 2012 , 6, 7885-92	16.7	23
167	A New Sensing Metric to Reduce Data Fluctuations in a Nanogap-Embedded Field-Effect Transistor Biosensor. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 2825-2831	2.9	43
166	A Nonpiecewise Model for Long-Channel Junctionless Cylindrical Nanowire FETs. <i>IEEE Electron Device Letters</i> , 2012 , 33, 155-157	4.4	44
165	Accumulation mode field-effect transistors for improved sensitivity in nanowire-based biosensors. <i>Applied Physics Letters</i> , 2012 , 100, 213703	3.4	14
164	Integration of field effect transistor-based biosensors with a digital microfluidic device for a lab-on-a-chip application. <i>Lab on A Chip</i> , 2012 , 12, 1533-9	7.2	68
163	An Underlap Channel-Embedded Field-Effect Transistor for Biosensor Application in Watery and Dry Environment. <i>IEEE Nanotechnology Magazine</i> , 2012 , 11, 390-394	2.6	63
162	An electrostatic micromechanical biosensor for electrical detection of label-free DNA. <i>Applied Physics Letters</i> , 2012 , 100, 163701	3.4	6
161	Micropatterning Polydiacetylene Supramolecular Vesicles on Glass Substrates using a Pre-Patterned Hydrophobic Thin Film. <i>Macromolecular Chemistry and Physics</i> , 2012 , 213, 610-616	2.6	12

160	. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 2243-2249	2.9	15
159	Droplet transportation using a pre-charging method for digital microfluidics. <i>Microfluidics and Nanofluidics</i> , 2012 , 12, 821-827	2.8	18
158	Highly durable floating body cell memory: Vertical biristor 2012 ,		12
157	Terahertz time-domain spectroscopy of anisotropic complex conductivity tensors in silicon nanowire films. <i>Applied Physics Letters</i> , 2012 , 100, 211102	3.4	11
156	Effects of the oxygen vacancy concentration in InGaZnO-based resistance random access memory. <i>Applied Physics Letters</i> , 2012 , 101, 243503	3.4	47
155	Addressable Nanowire Field-Effect-Transistor Biosensors With Local Backgates. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 2507-2511	2.9	6
154	A nanoforest structure for practical surface-enhanced Raman scattering substrates. <i>Nanotechnology</i> , 2012 , 23, 095301	3.4	18
153	Adhesion Force Change by Electrowetting on a Polymer Microlens Array. <i>Journal of Adhesion Science and Technology</i> , 2012 , 26, 2079-2086	2	6
152	Self-cleaning effect of highly water-repellent microshell structures for solar cell applications. <i>Journal of Materials Chemistry</i> , 2011 , 21, 633-636		162
151	Development of a Point-of-Care Testing Platform With a Nanogap-Embedded Separated Double-Gate Field Effect Transistor Array and Its Readout System for Detection of Avian Influenza. <i>IEEE Sensors Journal</i> , 2011 , 11, 351-360	4	50
150	Label-free DNA detection with a nanogap embedded complementary metal oxide semiconductor. <i>Nanotechnology</i> , 2011 , 22, 135502	3.4	45
149	Sensitivity of Threshold Voltage to Nanowire Width Variation in Junctionless Transistors. <i>IEEE Electron Device Letters</i> , 2011 , 32, 125-127	4.4	214
148	A polydimethylsiloxane (PDMS) sponge for the selective absorption of oil from water. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 4552-6	9.5	488
147	Damage immune field effect transistors with vacuum gate dielectric. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011 , 29, 011014	1.3	20
146	Vertically Integrated Unidirectional Biristor. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1483-1485	4.4	15
145	Detection of a Nanoscale Hot Spot by Hot Carriers in a Poly-Si TFT Using Polydiacetylene-Based Thermoresponsive Fluorometry. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 1570-1574	2.9	2
144	An Extraction Method of the Energy Distribution of Interface Traps by an Optically Assisted Charge Pumping Technique. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 3667-3673	2.9	5
143	A Full-Range Drain Current Model for Double-Gate Junctionless Transistors. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 4219-4225	2.9	101

142	Nanogap electrode fabrication for a nanoscale device by volume-expanding electrochemical synthesis. <i>Small</i> , 2011 , 7, 2210-6	11	11
141	Thermofluorescent Conjugated Polymer Sensors for Nano- and Microscale Temperature Monitoring. <i>Macromolecular Chemistry and Physics</i> , 2011 , 212, 1211-1220	2.6	32
140	Network Polydiacetylene Films: Preparation, Patterning, and Sensor Applications. <i>Advanced Functional Materials</i> , 2011 , 21, 1032-1039	15.6	69
139	Photoinduced memory with hybrid integration of an organic fullerene derivative and an inorganic nanogap-embedded field-effect transistor for low-voltage operation. <i>Advanced Materials</i> , 2011 , 23, 3326-3331	2.4	10
138	Bio-inspired complementary photoconductor by porphyrin-coated silicon nanowires. <i>Advanced Materials</i> , 2011 , 23, 3979-83	24	26
137	Silicon Nanowire All-Around Gate MOSFETs Built on a Bulk Substrate by All Plasma-Etching Routes. <i>IEEE Electron Device Letters</i> , 2011 , 32, 452-454	4.4	34
136	Interface-Trap Analysis by an Optically Assisted Charge-Pumping Technique in a Floating-Body Device. <i>IEEE Electron Device Letters</i> , 2011 , 32, 84-86	4.4	3
135	Nonvolatile Memory by All-Around-Gate Junctionless Transistor Composed of Silicon Nanowire on Bulk Substrate. <i>IEEE Electron Device Letters</i> , 2011 , 32, 602-604	4.4	52
134	Electrophoretic deposition of amphiphilic diacetylene supramolecules: polymerization, selective immobilization, pattern transfer and sensor applications. <i>Journal of Materials Chemistry</i> , 2011 , 21, 18605		15
133	Investigation of Size Dependence on Sensitivity for Nanowire FET Biosensors. <i>IEEE Nanotechnology Magazine</i> , 2011 , 10, 1405-1411	2.6	21
132	Simple Analytical Bulk Current Model for Long-Channel Double-Gate Junctionless Transistors. <i>IEEE Electron Device Letters</i> , 2011 , 32, 704-706	4.4	125
131	Transformable functional nanoscale building blocks with wafer-scale silicon nanowires. <i>Nano Letters</i> , 2011 , 11, 854-9	11.5	14
130	Multi-layer nanogap array for high-performance SERS substrate. <i>Nanotechnology</i> , 2011 , 22, 235303	3.4	4
129	Microfabrication and characterization of spray-coated single-wall carbon nanotube film strain gauges. <i>Nanotechnology</i> , 2011 , 22, 455301	3.4	29
128	Comprehensive modeling of resistive switching in the Al/TiO _x /TiO ₂ /Al heterostructure based on space-charge-limited conduction. <i>Applied Physics Letters</i> , 2010 , 97, 033508	3.4	54
127	A Bendable-Channel FinFET for Logic Application. <i>IEEE Electron Device Letters</i> , 2010 , 31, 624-626	4.4	3
126	Biristor Bistable Resistor Based on a Silicon Nanowire. <i>IEEE Electron Device Letters</i> , 2010 , 31, 797-799	4.4	35
125	Optically Assisted Charge Pumping on Floating-Body FETs. <i>IEEE Electron Device Letters</i> , 2010 , 31, 1365-1367	4.4	2

124	A charge pumping technique to identify biomolecular charge polarity using a nanogap embedded biotransistor. <i>Applied Physics Letters</i> , 2010 , 97, 073702	3.4	7
123	Double-gate nanowire field effect transistor for a biosensor. <i>Nano Letters</i> , 2010 , 10, 2934-8	11.5	139
122	Superhydrophobic cylindrical nanoshell array. <i>Langmuir</i> , 2010 , 26, 7661-4	4	24
121	Comprehensive study of a detection mechanism and optimization strategies to improve sensitivity in a nanogap-embedded biotransistor. <i>Journal of Applied Physics</i> , 2010 , 107, 114705	2.5	5
120	Charge pumping technique to analyze the effect of intrinsically retained charges and extrinsically trapped charges in biomolecules by use of a nanogap embedded biotransistor. <i>Applied Physics Letters</i> , 2010 , 96, 053702	3.4	7
119	A 9-bit 80 MS/s Successive Approximation Register Analog-to-Digital Converter With a Capacitor Reduction Technique. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2010 , 57, 502-506	3.5	28
118	An underlap field-effect transistor for electrical detection of influenza. <i>Applied Physics Letters</i> , 2010 , 96, 033703	3.4	49
117	Surface-modified microelectrode array with flake nanostructure for neural recording and stimulation. <i>Nanotechnology</i> , 2010 , 21, 85303	3.4	65
116	Analytical modeling and thermodynamic analysis of robust superhydrophobic surfaces with inverse-trapezoidal microstructures. <i>Langmuir</i> , 2010 , 26, 17389-97	4	30
115	A robust superhydrophobic and superoleophobic surface with inverse-trapezoidal microstructures on a large transparent flexible substrate. <i>Soft Matter</i> , 2010 , 6, 1401	3.6	290
114	Gold nanoparticle embedded silicon nanowire biosensor for applications of label-free DNA detection. <i>Biosensors and Bioelectronics</i> , 2010 , 25, 2182-5	11.8	42
113	Electrowetting on a polymer microlens array. <i>Langmuir</i> , 2010 , 26, 12443-7	4	32
112	Analysis and Evaluation of a BJT-Based 1T-DRAM. <i>IEEE Electron Device Letters</i> , 2010 , 31, 393-395	4.4	13
111	A 9.15mW 0.22mm ² 10b 204MS/s pipelined SAR ADC in 65nm CMOS 2010 ,		2
110	High-Performance Polycrystalline Silicon TFT on the Structure of a Dopant-Segregated Schottky-Barrier Source/Drain. <i>IEEE Electron Device Letters</i> , 2010 , 31, 228-230	4.4	11
109	Fin Width (W_{fin}) Dependence of Programming Characteristics on a Dopant-Segregated Schottky-Barrier (DSSB) FinFET SONOS Device for a NOR-Type Flash Memory Device. <i>IEEE Electron Device Letters</i> , 2010 , 31, 71-73	4.4	6
108	Fin-Width Dependence of BJT-Based 1T-DRAM Implemented on FinFET. <i>IEEE Electron Device Letters</i> , 2010 , 31, 909-911	4.4	9
107	FinFACT _{in} Flip-Flop Actuated Channel Transistor. <i>IEEE Electron Device Letters</i> , 2010 , 31, 764-766	4.4	12

106	Bistable resistor (biristor) - gateless silicon nanowire memory 2010 ,		22
105	A color display system based on thermochromic conjugated polydiacetylene supramolecules. <i>Macromolecular Research</i> , 2010 , 18, 404-407	1.9	15
104	Polysilicon Channel TFT With Separated Double-Gate for Unified RAM (URAM) Unified Function for Nonvolatile SONOS Flash and High-Speed Capacitorless 1T-DRAM. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 601-607	2.9	17
103	An Optically Assisted Program Method for Capacitorless 1T-DRAM. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 1714-1718	2.9	6
102	P-Channel Nonvolatile Flash Memory With a Dopant-Segregated Schottky-Barrier Source/Drain. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 1737-1742	2.9	3
101	Dopant-Segregated Schottky Source/Drain FinFET With a NiSi FUSI Gate and Reduced Leakage Current. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 2902-2906	2.9	8
100	Analytical Modeling of a Nanogap-Embedded FET for Application as a Biosensor. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 3477-3484	2.9	81
99	Fabrication of Patterned Polydiacetylene Composite Films Using a Replica-Molding (REM) Technique. <i>Macromolecular Rapid Communications</i> , 2010 , 31, 270-4	4.8	15
98	A new approach to cell size scaling with a multi-dual cell and a buffer/background programming of unified RAM. <i>Microelectronic Engineering</i> , 2010 , 87, 135-138	2.5	2
97	Highly durable and flexible memory based on resistance switching. <i>Solid-State Electronics</i> , 2010 , 54, 392-396	3.9	41
96	Nanowire mechanical switch with a built-in diode. <i>Small</i> , 2010 , 6, 1197-200	11	18
95	Fullerene-derivative-embedded nanogap field-effect-transistor and its nonvolatile memory application. <i>Small</i> , 2010 , 6, 1617-21	11	14
94	Transparent Zinc Oxide Gate Metal Oxide Semiconductor Field-Effect Transistor for High-Responsivity Photodetector. <i>IEEE Electron Device Letters</i> , 2009 , 30, 493-495	4.4	10
93	Investigation of the source-side injection characteristic of a dopant-segregated Schottky barrier metal-oxide-semiconductor field-effect-transistor. <i>Applied Physics Letters</i> , 2009 , 95, 063508	3.4	3
92	Gate-to-Source/Drain Nonoverlap Device for Soft-Program Immune Unified RAM (URAM). <i>IEEE Electron Device Letters</i> , 2009 , 30, 544-546	4.4	10
91	Fully Depleted Polysilicon TFTs for Capacitorless 1T-DRAM. <i>IEEE Electron Device Letters</i> , 2009 , 30, 742-744	4.4	8
90	Characterization of current injection mechanism in Schottky-barrier metal-oxide-semiconductor field-effect transistors. <i>Applied Physics Letters</i> , 2009 , 95, 083502	3.4	
89	Parasitic BJT Read Method for High-Performance Capacitorless 1T-DRAM Mode in Unified RAM. <i>IEEE Electron Device Letters</i> , 2009 , 30, 1108-1110	4.4	11

88	Densely-Packed Microbowl Array with Balanced Dielectrophoretic Forces for Single-Cell Microarray. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1222, 1		
87	Mass fabrication of resistive random access crossbar arrays by step and flash imprint lithography. <i>Nanotechnology</i> , 2009 , 20, 445305	3.4	6
86	Designed Workfunction Engineering of Double-Stacked Metal Nanocrystals for Nonvolatile Memory Application. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 377-382	2.9	21
85	Refinement of Unified Random Access Memory. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 601-608	2.9	4
84	Resistive Switching Characteristics of Sol-Gel Zinc Oxide Films for Flexible Memory Applications. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 696-699	2.9	144
83	Resistive-Memory Embedded Unified RAM (R-URAM). <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 2670-2674	2.9	4
82	A Comprehensive Study of the Resistive Switching Mechanism in $\text{Al}/\text{TiO}_2/\text{Al}$ -Structured RRAM. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 3049-3054	2.9	68
81	Improvement of the Sensing Window on a Capacitorless 1T-DRAM of a FinFET-Based Unified RAM. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 3228-3231	2.9	3
80	"Lock-and-key" geometry effect of patterned surfaces: wettability and switching of adhesive force. <i>Small</i> , 2009 , 5, 90-4	11	97
79	Nanogap field-effect transistor biosensors for electrical detection of avian influenza. <i>Small</i> , 2009 , 5, 2407-12	11	96
78	Geometric effects of nanocrystals in nonvolatile memory using block copolymer nanotemplate. <i>Solid-State Electronics</i> , 2009 , 53, 640-643	1.7	3
77	High Aspect Ratio Silicon Nanowire for Stiction Immune Gate-All-Around MOSFETs. <i>IEEE Electron Device Letters</i> , 2009 , 30, 864-866	4.4	7
76	Substrate surface roughness-dependent 3-D complex nanoarchitectures of gold particles from directed electrodeposition. <i>Journal of Materials Chemistry</i> , 2009 , 19, 478-483		23
75	A biomolecular detection method based on charge pumping in a nanogap embedded field-effect-transistor biosensor. <i>Applied Physics Letters</i> , 2009 , 94, 243903	3.4	25
74	Analysis of Trapped Charges in Dopant-Segregated Schottky Barrier-Embedded FinFET SONOS Devices. <i>IEEE Electron Device Letters</i> , 2009 , 30, 1084-1086	4.4	3
73	A well-ordered flower-like gold nanostructure for integrated sensors via surface-enhanced Raman scattering. <i>Nanotechnology</i> , 2009 , 20, 235302	3.4	62
72	Enhancement of Program Speed in Dopant-Segregated Schottky-Barrier (DSSB) FinFET SONOS for NAND-Type Flash Memory. <i>IEEE Electron Device Letters</i> , 2009 , 30, 78-81	4.4	17
71	A conventional route to scalable morphology-controlled regular structures and their superhydrophobic/hydrophilic properties for biochips application. <i>Lab on A Chip</i> , 2009 , 9, 2140-4	7.2	28

70	Low-Cost and Highly Heat Controllable Capacitorless PiFET (Partially Insulated FET) 1T DRAM for Embedded Memory. <i>IEEE Nanotechnology Magazine</i> , 2009 , 8, 100-105	2.6	5
69	High Injection Efficiency and Low-Voltage Programming in a Dopant-Segregated Schottky Barrier (DSSB) FinFET SONOS for nor-type Flash Memory. <i>IEEE Electron Device Letters</i> , 2009 , 30, 265-268	4.4	9
68	A Highly Flexible Superhydrophobic Microlens Array with Small Contact Angle Hysteresis for Droplet-Based Microfluidics 2009 ,		2
67	Gate-Induced Drain-Leakage (GIDL) Programming Method for Soft-Programming-Free Operation in Unified RAM (URAM). <i>IEEE Electron Device Letters</i> , 2009 , 30, 189-191	4.4	16
66	A 2.85mW 0.12mm ² 1.0V 11-bit 20-MS/s algorithmic ADC in 65nm CMOS 2009 ,		3
65	Universal Potential Model in Tied and Separated Double-Gate MOSFETs With Consideration of Symmetric and Asymmetric Structure. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 1472-1479	2.9	40
64	Controlled Molecularly Mediated Assembly of Gold Nanooctahedra for a Glucose Biosensor. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 3605-3611	3.8	16
63	Resistive switching of aluminum oxide for flexible memory. <i>Applied Physics Letters</i> , 2008 , 92, 223508	3.4	112
62	Analytical Threshold Voltage Model for Double-Gate MOSFETs With Localized Charges. <i>IEEE Electron Device Letters</i> , 2008 , 29, 927-930	4.4	40
61	Structure Effects on Resistive Switching of $\text{Al}/\text{TiO}_x/\text{Al}$ Devices for RRAM Applications. <i>IEEE Electron Device Letters</i> , 2008 , 29, 331-333	4.4	72
60	Nonvolatile Memory Characteristics of NMOSFET With Ag Nanocrystals Synthesized via a Thermal Decomposition Process for Uniform Device Distribution. <i>IEEE Nanotechnology Magazine</i> , 2008 , 7, 145-150 ⁶	2.6	7
59	A Bulk FinFET Unified-RAM (URAM) Cell for Multifunctioning NVM and Capacitorless 1T-DRAM. <i>IEEE Electron Device Letters</i> , 2008 , 29, 632-634	4.4	19
58	Integrated current readout circuit and DMFET array for label-free detection of cancer marker 2008 ,		2
57	Controlled Synthesis of Gold Nanocomplex Arrays by a Combined Top-Down and Bottom-Up Approach and Their Electrochemical Behavior. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 12747-12753	3.8	14
56	Nonvolatile memory based on sol-gel ZnO thin-film transistors with Ag nanoparticles embedded in the ZnO/gate insulator interface. <i>Applied Physics Letters</i> , 2008 , 93, 224106	3.4	73
55	Partially Depleted SONOS FinFET for Unified RAM (URAM) Unified Function for High-Speed 1T DRAM and Nonvolatile Memory. <i>IEEE Electron Device Letters</i> , 2008 , 29, 781-783	4.4	16
54	Metal nanocrystals synthesized with a micellar template based on a diblock copolymer for three-dimensional nonvolatile memory. <i>Applied Physics Letters</i> , 2008 , 93, 052106	3.4	12
53	Wafer-scale controlled Au/Pt bimetallic flowerlike structure array 2008 , 41, 58-65		7

52	A one-step route to a perfectly ordered wafer-scale microbowl array for size-dependent superhydrophobicity. <i>Small</i> , 2008 , 4, 211-6	11	37
51	Doping-free nanoscale complementary carbon-nanotube field-effect transistors with DNA-templated molecular lithography. <i>Small</i> , 2008 , 4, 1959-63	11	2
50	Alternative route to reconstitute an electrical contact of enzyme on a single-walled carbon nanotube/ferrocene hybrid. <i>Journal of Electroanalytical Chemistry</i> , 2008 , 621, 38-42	4.1	8
49	Body Thickness Dependence of Impact Ionization in a Multiple-Gate FinFET. <i>IEEE Electron Device Letters</i> , 2007 , 28, 625-627	4.4	19
48	A dielectric-modulated field-effect transistor for biosensing. <i>Nature Nanotechnology</i> , 2007 , 2, 430-4	28.7	305
47	Quasi 3-D Velocity Saturation Model for Multiple-Gate MOSFETs. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 1165-1170	2.9	6
46	Chemical sensors based on nanostructured materials. <i>Sensors and Actuators B: Chemical</i> , 2007 , 122, 659-671	67.1	530
45	Sublithographic vertical gold nanogap for label-free electrical detection of protein-ligand binding. <i>Journal of Vacuum Science & Technology B</i> , 2007 , 25, 443		30
44	A Unified-RAM (URAM) Cell for Multi-Functioning Capacitorless DRAM and NVM 2007 ,		17
43	Vertically standing carbon nanotubes as charge storage nodes for an ultimately scaled nonvolatile memory application. <i>Applied Physics Letters</i> , 2007 , 91, 063110	3.4	12
42	Ferrocene Functionalized Single-Walled Carbon Nanotube Bundles. Hybrid Interdigitated Construction Film for L-Glutamate Detection. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 1200-1206	3.8	59
41	Extremely scaled 3-dimensional multiple-gate technologies for terabit era. <i>Journal of Nanoscience and Nanotechnology</i> , 2007 , 7, 4126-30	1.3	
40	Morphology-controlled SWCNT/polymeric microsphere arrays by a wet chemical self-assembly technique and their application for sensors. <i>Nanotechnology</i> , 2006 , 17, 2988-2993	3.4	24
39	Reliability Issues in Multi-Gate FinFETs 2006 ,		4
38	Direct electrochemistry of uric acid at chemically assembled carboxylated single-walled carbon nanotubes netlike electrode. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 21850-6	3.4	66
37	A comprehensive modeling of dynamic negative-bias temperature instability in PMOS body-tied FinFETs. <i>IEEE Electron Device Letters</i> , 2006 , 27, 281-283	4.4	1
36	Parasitic S/D resistance effects on hot-carrier reliability in body-tied FinFETs. <i>IEEE Electron Device Letters</i> , 2006 , 27, 514-516	4.4	12
35	Aspartate Aminotransferase (AST/GOT) and Alanine Aminotransferase (ALT/GPT) Detection Techniques. <i>Sensors</i> , 2006 , 6, 756-782	3.8	207

34	Oscillating behaviour of hazardous gas on tin oxide gas sensor: Fourier and wavelet transform analysis. <i>Sensors and Actuators B: Chemical</i> , 2006 , 115, 357-364	8.5	18
33	Electrochemical behavior of needle-like and forest-like single-walled carbon nanotube electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2006 , 594, 27-34	4.1	22
32	Dynamic determination of domestic liquefied petroleum gas down to several ppm levels using a Sr-doped SnO ₂ thick film gas sensor. <i>Mikrochimica Acta</i> , 2006 , 156, 245-251	5.8	12
31	A study of negative-bias temperature instability of SOI and body-tied FinFETs. <i>IEEE Electron Device Letters</i> , 2005 , 26, 326-328	4.4	30
30	Sublithographic nanofabrication technology for nanocatalysts and DNA chips. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2003 , 21, 2951		55
29	Sub-lithographic patterning technology for nanowire model catalysts and DNA label-free hybridization detection 2003 ,		2
28	Fabrication of Sub-10-nm Silicon Nanowire Arrays by Size Reduction Lithography. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 3340-3343	3.4	153
27	Hydrogen annealing effect on DC and low-frequency noise characteristics in CMOS FinFETs. <i>IEEE Electron Device Letters</i> , 2003 , 24, 186-188	4.4	40
26	. <i>Proceedings of the IEEE</i> , 2003 , 9, 1860-1873	14.3	157
25	Low-frequency noise characteristics of ultrathin body p-MOSFETs with molybdenum gate. <i>IEEE Electron Device Letters</i> , 2003 , 24, 31-33	4.4	9
24	A spacer patterning technology for nanoscale CMOS. <i>IEEE Transactions on Electron Devices</i> , 2002 , 49, 436-441	2.9	144
23	Spacer FinFET: nanoscale double-gate CMOS technology for the terabit era. <i>Solid-State Electronics</i> , 2002 , 46, 1595-1601	1.7	46
22	Low-frequency noise characteristics in p-channel FinFETs. <i>IEEE Electron Device Letters</i> , 2002 , 23, 722-724	4.4	15
21	Nanostructured Electrodes for Improved Neural Recording. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 729, 4111		4
20	Batch Fabrication of Nanopillars for Autonomous Nanofluidic SERS Arrays. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 729, 491		3
19	Nanogap Capacitors for Label Free DNA Analysis. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 729, 4101		9
18	Nanoscale CMOS spacer FinFET for the terabit era. <i>IEEE Electron Device Letters</i> , 2002 , 23, 25-27	4.4	124
17	. <i>IEEE Transactions on Electron Devices</i> , 2001 , 48, 880-886	2.9	184

16	Patterning sub-30-nm MOSFET gate with i-line lithography. <i>IEEE Transactions on Electron Devices</i> , 2001 , 48, 1004-1006	2.9	29
15	Nanoscale ultrathin body PMOSFETs with raised selective germanium source/drain. <i>IEEE Electron Device Letters</i> , 2001 , 22, 447-448	4.4	32
14	Sub-60-nm quasi-planar FinFETs fabricated using a simplified process. <i>IEEE Electron Device Letters</i> , 2001 , 22, 487-489	4.4	99
13	Ultrathin-body SOI MOSFET for deep-sub-tenth micron era. <i>IEEE Electron Device Letters</i> , 2000 , 21, 254-255	4.4	134
12	Reliability study of CMOS FinFETs		5
11	Threshold voltage shift by quantum confinement in ultra-thin body device		2
10	Spacer FinFET: nano-scale CMOS technology for the terabit era		4
9	FinFET process refinements for improved mobility and gate work function engineering		49
8	30 nm ultra-thin-body SOI MOSFET with selectively deposited Ge raised S/D		10
7	FinFET-a quasi-planar double-gate MOSFET		12
6	Ultra-thin body PMOSFETs with selectively deposited Ge source/drain		6
5	Quasi-planar NMOS FinFETs with sub-100 nm gate lengths		9
4	Ultra-thin body SOI MOSFET for deep-sub-tenth micron era		13
3	Sub 50-nm FinFET: PMOS		39
2	Mechanically robust triboelectric nanogenerator with shear thickening fluid for impact monitoring. <i>Journal of Materials Chemistry A</i> ,	13	1
1	A Multiple-State Ion Synaptic Transistor Applicable to Abnormal Car Detection with Transfer Learning. <i>Advanced Intelligent Systems</i> ,2100231	6	