

H-S Philip Wong

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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.

395
papers

26,159
citations

78
h-index

153
g-index

417
ext. papers

31,164
ext. citations

7.6
avg, IF

7.48
L-index

#	Paper	IF	Citations
395	MetalOxide RRAM. <i>Proceedings of the IEEE</i> , 2012 , 100, 1951-1970	14.3	1699
394	Phase Change Memory. <i>Proceedings of the IEEE</i> , 2010 , 98, 2201-2227	14.3	1108
393	Nanoelectronic programmable synapses based on phase change materials for brain-inspired computing. <i>Nano Letters</i> , 2012 , 12, 2179-86	11.5	836
392	MoS2 transistors with 1-nanometer gate lengths. <i>Science</i> , 2016 , 354, 99-102	33.3	812
391	Synaptic electronics: materials, devices and applications. <i>Nanotechnology</i> , 2013 , 24, 382001	3.4	789
390	Carbon nanotube computer. <i>Nature</i> , 2013 , 501, 526-30	50.4	745
389	In-memory computing with resistive switching devices. <i>Nature Electronics</i> , 2018 , 1, 333-343	28.4	703
388	An Electronic Synapse Device Based on Metal Oxide Resistive Switching Memory for Neuromorphic Computation. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 2729-2737	2.9	563
387	A Compact SPICE Model for Carbon-Nanotube Field-Effect Transistors Including Nonidealities and Its ApplicationPart I: Model of the Intrinsic Channel Region. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 3186-3194	2.9	505
386	Face classification using electronic synapses. <i>Nature Communications</i> , 2017 , 8, 15199	17.4	502
385	Memory leads the way to better computing. <i>Nature Nanotechnology</i> , 2015 , 10, 191-4	28.7	497
384	Graphene and two-dimensional materials for silicon technology. <i>Nature</i> , 2019 , 573, 507-518	50.4	445
383	A Compact SPICE Model for Carbon-Nanotube Field-Effect Transistors Including Nonidealities and Its ApplicationPart II: Full Device Model and Circuit Performance Benchmarking. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 3195-3205	2.9	419
382	A low energy oxide-based electronic synaptic device for neuromorphic visual systems with tolerance to device variation. <i>Advanced Materials</i> , 2013 , 25, 1774-9	24	380
381	Three-dimensional integration of nanotechnologies for computing and data storage on a single chip. <i>Nature</i> , 2017 , 547, 74-78	50.4	373
380	Optoelectronic resistive random access memory for neuromorphic vision sensors. <i>Nature Nanotechnology</i> , 2019 , 14, 776-782	28.7	370
379	Continuous wireless pressure monitoring and mapping with ultra-small passive sensors for health monitoring and critical care. <i>Nature Communications</i> , 2014 , 5, 5028	17.4	320

378	Electronic synapses made of layered two-dimensional materials. <i>Nature Electronics</i> , 2018 , 1, 458-465	28.4	316
377	Recommended Methods to Study Resistive Switching Devices. <i>Advanced Electronic Materials</i> , 2019 , 5, 1800143	6.4	297
376	Conduction mechanism of TiN/HfOx/Pt resistive switching memory: A trap-assisted-tunneling model. <i>Applied Physics Letters</i> , 2011 , 99, 063507	3.4	272
375	HfOx-based vertical resistive switching random access memory suitable for bit-cost-effective three-dimensional cross-point architecture. <i>ACS Nano</i> , 2013 , 7, 2320-5	16.7	265
374	The End of Moore's Law: A New Beginning for Information Technology. <i>Computing in Science and Engineering</i> , 2017 , 19, 41-50	1.5	264
373	The end of CMOS scaling: toward the introduction of new materials and structural changes to improve MOSFET performance. <i>IEEE Circuits and Devices: the Magazine of Electronic and Photonic Systems</i> , 2005 , 21, 16-26		263
372	On the Switching Parameter Variation of Metal-Oxide RRAM Part I: Physical Modeling and Simulation Methodology. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 1172-1182	2.9	245
371	Artificial optic-neural synapse for colored and color-mixed pattern recognition. <i>Nature Communications</i> , 2018 , 9, 5106	17.4	243
370	Generalized scale length for two-dimensional effects in MOSFETs. <i>IEEE Electron Device Letters</i> , 1998 , 19, 385-387	4.4	234
369	Wafer-scale single-crystal hexagonal boron nitride monolayers on Cu(111). <i>Nature</i> , 2020 , 579, 219-223	50.4	209
368	. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 2531-2538	2.9	209
367	Investigating the switching dynamics and multilevel capability of bipolar metal oxide resistive switching memory. <i>Applied Physics Letters</i> , 2011 , 98, 103514	3.4	205
366	Extension and source/drain design for high-performance FinFET devices. <i>IEEE Transactions on Electron Devices</i> , 2003 , 50, 952-958	2.9	205
365	Phase-Change Memory towards a Storage-Class Memory. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 4374-4385	2.9	191
364	Compact Modeling of Conducting-Bridge Random-Access Memory (CBRAM). <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 1352-1360	2.9	180
363	A Phenomenological Model for the Reset Mechanism of Metal Oxide RRAM. <i>IEEE Electron Device Letters</i> , 2010 , 31, 1455-1457	4.4	164
362	A 1 GHz integrated circuit with carbon nanotube interconnects and silicon transistors. <i>Nano Letters</i> , 2008 , 8, 706-9	11.5	163
361	. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 1183-1188	2.9	156

360	Wafer-Scale Growth and Transfer of Aligned Single-Walled Carbon Nanotubes. <i>IEEE Nanotechnology Magazine</i> , 2009 , 8, 498-504	2.6	156
359	A SPICE Compact Model of Metal Oxide Resistive Switching Memory With Variations. <i>IEEE Electron Device Letters</i> , 2012 , 33, 1405-1407	4.4	155
358	Technology and device scaling considerations for CMOS imagers. <i>IEEE Transactions on Electron Devices</i> , 1996 , 43, 2131-2142	2.9	150
357	Ultra-low-energy three-dimensional oxide-based electronic synapses for implementation of robust high-accuracy neuromorphic computation systems. <i>ACS Nano</i> , 2014 , 8, 6998-7004	16.7	148
356	Brain-like associative learning using a nanoscale non-volatile phase change synaptic device array. <i>Frontiers in Neuroscience</i> , 2014 , 8, 205	5.1	147
355	CMOS-analogous wafer-scale nanotube-on-insulator approach for submicrometer devices and integrated circuits using aligned nanotubes. <i>Nano Letters</i> , 2009 , 9, 189-97	11.5	144
354	Fermi level depinning in metal/Ge Schottky junction for metal source/drain Ge metal-oxide-semiconductor field-effect-transistor application. <i>Journal of Applied Physics</i> , 2009 , 105, 023702	7.5	143
353	Self-aligned n-channel germanium MOSFETs with a thin Ge oxynitride gate dielectric and tungsten gate. <i>IEEE Electron Device Letters</i> , 2004 , 25, 135-137	4.4	138
352	Electrical characterization of germanium p-channel MOSFETs. <i>IEEE Electron Device Letters</i> , 2003 , 24, 242-244	4.4	137
351	Removable and Recyclable Conjugated Polymers for Highly Selective and High-Yield Dispersion and Release of Low-Cost Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2016 , 138, 802-5	16.4	123
350	2012 ,		123
349	Al ₂ O ₃ -Based RRAM Using Atomic Layer Deposition (ALD) With 1-A RESET Current. <i>IEEE Electron Device Letters</i> , 2010 , 31, 1449-1451	4.4	121
348	How 2D semiconductors could extend Moore's law. <i>Nature</i> , 2019 , 567, 169-170	50.4	120
347	Statistical Study on the Schottky Barrier Reduction of Tunneling Contacts to CVD Synthesized MoS ₂ . <i>Nano Letters</i> , 2016 , 16, 276-81	11.5	118
346	Multi-level control of conductive nano-filament evolution in HfO ₂ ReRAM by pulse-train operations. <i>Nanoscale</i> , 2014 , 6, 5698-702	7.7	113
345	Energy-Efficient Abundant-Data Computing: The N3XT 1,000x. <i>Computer</i> , 2015 , 48, 24-33	1.6	112
344	Self-aligned (top and bottom) double-gate MOSFET with a 25 nm thick silicon channel		111
343	On the stochastic nature of resistive switching in metal oxide RRAM: Physical modeling, monte carlo simulation, and experimental characterization 2011 ,		108

342	Device design considerations for double-gate, ground-plane, and single-gated ultra-thin SOI MOSFETs at the 25 nm channel length generation		108
341	. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 3137-3143	2.9	107
340	Monitoring oxygen movement by Raman spectroscopy of resistive random access memory with a graphene-inserted electrode. <i>Nano Letters</i> , 2013 , 13, 651-7	11.5	106
339	Large-area assembly of densely aligned single-walled carbon nanotubes using solution shearing and their application to field-effect transistors. <i>Advanced Materials</i> , 2015 , 27, 2656-62	24	104
338	Variability in carbon nanotube transistors: improving device-to-device consistency. <i>ACS Nano</i> , 2012 , 6, 1109-15	16.7	104
337	Synthesis and size-dependent crystallization of colloidal germanium telluride nanoparticles. <i>Journal of Materials Chemistry</i> , 2010 , 20, 1285-1291		103
336	Crystallization times of GeTe phase change materials as a function of composition. <i>Applied Physics Letters</i> , 2009 , 95, 071910	3.4	101
335	Thickness and stoichiometry dependence of the thermal conductivity of GeSbTe films. <i>Applied Physics Letters</i> , 2007 , 91, 111904	3.4	100
334	Energy-Efficient Phase-Change Memory with Graphene as a Thermal Barrier. <i>Nano Letters</i> , 2015 , 15, 6809-14	9.4	98
333	. <i>IEEE Nanotechnology Magazine</i> , 2009 , 8, 37-45	2.6	98
332	High-Performance p-Type Black Phosphorus Transistor with Scandium Contact. <i>ACS Nano</i> , 2016 , 10, 4672-7	2.7	96
331	A Compact Model for MetalOxide Resistive Random Access Memory With Experiment Verification. <i>IEEE Transactions on Electron Devices</i> , 2016 , 63, 1884-1892	2.9	96
330	Metal oxide-resistive memory using graphene-edge electrodes. <i>Nature Communications</i> , 2015 , 6, 8407	17.4	95
329	Cost-effective, transfer-free, flexible resistive random access memory using laser-scribed reduced graphene oxide patterning technology. <i>Nano Letters</i> , 2014 , 14, 3214-9	11.5	93
328	Selective synthesis and device applications of semiconducting single-walled carbon nanotubes using isopropyl alcohol as feedstock. <i>ACS Nano</i> , 2012 , 6, 7454-62	16.7	93
327	SiGe-on-insulator prepared by wafer bonding and layer transfer for high-performance field-effect transistors. <i>Applied Physics Letters</i> , 2001 , 78, 1267-1269	3.4	92
326	Flexible control of block copolymer directed self-assembly using small, topographical templates: potential lithography solution for integrated circuit contact hole patterning. <i>Advanced Materials</i> , 2012 , 24, 3107-14, 3082	24	89
325	Thermal Boundary Resistance Measurements for Phase-Change Memory Devices. <i>IEEE Electron Device Letters</i> , 2010 , 31, 56-58	4.4	89

324	2012,		88
323	Impact of a Process Variation on Nanowire and Nanotube Device Performance. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2369-2376	2.9	88
322	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2012 , 31, 453-471	2.5	85
321	. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 2377-2385	2.9	84
320	Ultrafast characterization of phase-change material crystallization properties in the melt-quenched amorphous phase. <i>Nano Letters</i> , 2014 , 14, 3419-26	11.5	82
319	Low-voltage high-performance flexible digital and analog circuits based on ultrahigh-purity semiconducting carbon nanotubes. <i>Nature Communications</i> , 2019 , 10, 2161	17.4	80
318	High Current Density and Low Thermal Conductivity of Atomically Thin Semimetallic WTe ₂ . <i>ACS Nano</i> , 2016 , 10, 7507-14	16.7	78
317	Design Methods for Misaligned and Mispositioned Carbon-Nanotube Immune Circuits. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2008 , 27, 1725-1736	2.5	76
316	. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 1155-1163	2.9	72
315	Nanoscale Bipolar and Complementary Resistive Switching Memory Based on Amorphous Carbon. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 3933-3939	2.9	72
314	Low-Energy Robust Neuromorphic Computation Using Synaptic Devices. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 3489-3494	2.9	71
313	Monolithic 3D integration of logic and memory: Carbon nanotube FETs, resistive RAM, and silicon FETs 2014,		68
312	Strained Si CMOS (SS CMOS) technology: opportunities and challenges. <i>Solid-State Electronics</i> , 2003 , 47, 1133-1139	1.7	68
311	. <i>IEEE Transactions on Electron Devices</i> , 1989 , 36, 479-487	2.9	68
310	Metal/III-V Schottky barrier height tuning for the design of nonalloyed III-V field-effect transistor source/drain contacts. <i>Journal of Applied Physics</i> , 2010 , 107, 063712	2.5	66
309	VMR: VLSI-compatible metallic carbon nanotube removal for imperfection-immune cascaded multi-stage digital logic circuits using Carbon Nanotube FETs 2009,		65
308	Carbon nanomaterials for non-volatile memories. <i>Nature Reviews Materials</i> , 2018 , 3,	73.3	64
307	Sensor-to-Digital Interface Built Entirely With Carbon Nanotube FETs. <i>IEEE Journal of Solid-State Circuits</i> , 2014 , 49, 190-201	5.5	64

306	Device and materials requirements for neuromorphic computing. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 113001	3	64
305	Hyperdimensional computing with 3D VRRAM in-memory kernels: Device-architecture co-design for energy-efficient, error-resilient language recognition 2016 ,		63
304	Carbon nanotube circuit integration up to sub-20 nm channel lengths. <i>ACS Nano</i> , 2014 , 8, 3434-43	16.7	61
303	TDI charge-coupled devices: Design and applications. <i>IBM Journal of Research and Development</i> , 1992 , 36, 83-106	2.5	61
302	Electrical tuning of phase-change antennas and metasurfaces. <i>Nature Nanotechnology</i> , 2021 , 16, 667-672	8.7	61
301	Distinctive in-Plane Cleavage Behaviors of Two-Dimensional Layered Materials. <i>ACS Nano</i> , 2016 , 10, 8980-8987	16.7	60
300	Threshold Voltage and On/Off Ratio Tuning for Multiple-Tube Carbon Nanotube FETs. <i>IEEE Nanotechnology Magazine</i> , 2009 , 8, 4-9	2.6	59
299	Carbon Nanotube Transistor Circuits: Circuit-Level Performance Benchmarking and Design Options for Living with Imperfections. <i>Digest of Technical Papers - IEEE International Solid-State Circuits Conference</i> , 2007 ,	4	59
298	Analytical Modeling of the Suspended-Gate FET and Design Insights for Low-Power Logic. <i>IEEE Transactions on Electron Devices</i> , 2008 , 55, 48-59	2.9	58
297	VLSI-compatible carbon nanotube doping technique with low work-function metal oxides. <i>Nano Letters</i> , 2014 , 14, 1884-90	11.5	57
296	Resistive random access memory (RRAM) technology: From material, device, selector, 3D integration to bottom-up fabrication. <i>Journal of Electroceramics</i> , 2017 , 39, 21-38	1.5	57
295	Real-Time Observation of the Electrode-Size-Dependent Evolution Dynamics of the Conducting Filaments in a SiO Layer. <i>ACS Nano</i> , 2017 , 11, 4097-4104	16.7	55
294	2018 ,		55
293	Efficient FPGAs using nanoelectromechanical relays 2010 ,		55
292	Discrete random dopant distribution effects in nanometer-scale MOSFETs. <i>Microelectronics Reliability</i> , 1998 , 38, 1447-1456	1.2	55
291	A Circuit-Compatible SPICE model for Enhancement Mode Carbon Nanotube Field Effect Transistors 2006 ,		55
290	Phonon and electron transport through Ge ₂ Sb ₂ Te ₅ films and interfaces bounded by metals. <i>Applied Physics Letters</i> , 2013 , 102, 191911	3-4	54
289	Nanoscale phase change memory materials. <i>Nanoscale</i> , 2012 , 4, 4382-92	7.7	54

288	. <i>IEEE Nanotechnology Magazine</i> , 2018 , 17, 1259-1269	2.6	52
287	Resistance and Threshold Switching Voltage Drift Behavior in Phase-Change Memory and Their Temperature Dependence at Microsecond Time Scales Studied Using a Micro-Thermal Stage. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 584-592	2.9	51
286	Beyond the conventional transistor. <i>Solid-State Electronics</i> , 2005 , 49, 755-762	1.7	51
285	Read/write schemes analysis for novel complementary resistive switches in passive crossbar memory arrays. <i>Nanotechnology</i> , 2010 , 21, 465202	3.4	50
284	Ternary content-addressable memory with MoS ₂ transistors for massively parallel data search. <i>Nature Electronics</i> , 2019 , 2, 108-114	28.4	48
283	Hysteresis in Carbon Nanotube Transistors: Measurement and Analysis of Trap Density, Energy Level, and Spatial Distribution. <i>ACS Nano</i> , 2016 , 10, 4599-608	16.7	48
282	A Monte Carlo study of the low resistance state retention of HfO _x based resistive switching memory. <i>Applied Physics Letters</i> , 2012 , 100, 043507	3.4	47
281	Device study, chemical doping, and logic circuits based on transferred aligned single-walled carbon nanotubes. <i>Applied Physics Letters</i> , 2008 , 93, 033101	3.4	47
280	Picosecond Electric-Field-Induced Threshold Switching in Phase-Change Materials. <i>Physical Review Letters</i> , 2016 , 117, 067601	7.4	47
279	Nanometer-Scale HfO_x RRAM. <i>IEEE Electron Device Letters</i> , 2013 , 34, 1005-1007	4.4	46
278	Schottky-Barrier Carbon Nanotube Field-Effect Transistor Modeling. <i>IEEE Transactions on Electron Devices</i> , 2007 , 54, 439-445	2.9	46
277	Resistive RAM-Centric Computing: Design and Modeling Methodology. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2017 , 64, 2263-2273	3.9	45
276	. <i>IEEE Transactions on Electron Devices</i> , 2013 , 60, 1834-1843	2.9	45
275	Impact of fixed charge on metal-insulator-semiconductor barrier height reduction. <i>Applied Physics Letters</i> , 2011 , 99, 252104	3.4	43
274	Nanoelectromechanical (NEM) relays integrated with CMOS SRAM for improved stability and low leakage 2009 ,		43
273	CMOS active pixel image sensors fabricated using a 1.8-V, 0.25- μm CMOS technology. <i>IEEE Transactions on Electron Devices</i> , 1998 , 45, 889-894	2.9	43
272	Analytical ballistic theory of carbon nanotube transistors: Experimental validation, device physics, parameter extraction, and performance projection. <i>Journal of Applied Physics</i> , 2008 , 104, 124514	2.5	43
271	Analysis of Temperature in Phase Change Memory Scaling. <i>IEEE Electron Device Letters</i> , 2007 , 28, 697-699	2.4	43

270	Electron and hole mobility enhancement in strained SOI by wafer bonding. <i>IEEE Transactions on Electron Devices</i> , 2002 , 49, 1566-1571	2.9	43
269	The N3XT Approach to Energy-Efficient Abundant-Data Computing. <i>Proceedings of the IEEE</i> , 2019 , 107, 19-48	14.3	43
268	Layered Semiconducting 2D Materials for Future Transistor Applications. <i>Small Structures</i> , 2021 , 2, 20001803	10.3	43
267	Hysteresis-Free Carbon Nanotube Field-Effect Transistors. <i>ACS Nano</i> , 2017 , 11, 4785-4791	16.7	42
266	Optical Absorption Enhancement in Freestanding GaAs Thin Film Nanopyramid Arrays. <i>Advanced Energy Materials</i> , 2012 , 2, 1254-1260	21.8	42
265	The Effect of Donor/Acceptor Nature of Interface Traps on Ge MOSFET Characteristics. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 1015-1022	2.9	42
264	Fabrication of metal gated FinFETs through complete gate silicidation with Ni. <i>IEEE Transactions on Electron Devices</i> , 2004 , 51, 2115-2120	2.9	41
263	In Situ Tuning of Switching Window in a Gate-Controlled Bilayer Graphene-Electrode Resistive Memory Device. <i>Advanced Materials</i> , 2015 , 27, 7767-74	24	40
262	Electronic and optical switching of solution-phase deposited SnSe ₂ phase change memory material. <i>Journal of Applied Physics</i> , 2011 , 109, 113506	2.5	40
261	In situ transmission electron microscopy observation of nanostructural changes in phase-change memory. <i>ACS Nano</i> , 2011 , 5, 2742-8	16.7	40
260	Integration of nanoelectromechanical (NEM) relays with silicon CMOS with functional CMOS-NEM circuit 2011 ,		40
259	Carbon nanotube correlation 2010 ,		40
258	Experimental demonstration of high mobility Ge NMOS 2009 ,		39
257	Two gates are better than one [double-gate MOSFET process]. <i>IEEE Circuits and Devices: the Magazine of Electronic and Photonic Systems</i> , 2003 , 19, 48-62		39
256	Frequency response of top-gated carbon nanotube field-effect transistors. <i>IEEE Nanotechnology Magazine</i> , 2004 , 3, 383-387	2.6	38
255	Digital VLSI logic technology using Carbon Nanotube FETs 2009 ,		36
254	Unipolar n-Type Black Phosphorus Transistors with Low Work Function Contacts. <i>Nano Letters</i> , 2018 , 18, 2822-2827	11.5	35
253	A general design strategy for block copolymer directed self-assembly patterning of integrated circuits contact holes using an alphabet approach. <i>Nano Letters</i> , 2015 , 15, 805-12	11.5	35

252	Effect of annealing ambient and temperature on the electrical characteristics of atomic layer deposition Al ₂ O ₃ /In _{0.53} Ga _{0.47} As metal-oxide-semiconductor capacitors and MOSFETs. <i>Journal of Applied Physics</i> , 2012 , 111, 044105	2.5	35
251	Characterization and Design of Logic Circuits in the Presence of Carbon Nanotube Density Variations. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2011 , 30, 1103-1113	2.5	35
250	2016 ,		35
249	Universal Selective Dispersion of Semiconducting Carbon Nanotubes from Commercial Sources Using a Supramolecular Polymer. <i>ACS Nano</i> , 2017 , 11, 5660-5669	16.7	34
248	Characterization of the silicon on insulator film in bonded wafers by high resolution x-ray diffraction. <i>Applied Physics Letters</i> , 1999 , 75, 787-789	3.4	34
247	. <i>IEEE Electron Device Letters</i> , 2014 , 35, 912-914	4.4	33
246	A non-iterative compact model for carbon nanotube FETs incorporating source exhaustion effects 2009 ,		33
245	Integrated wafer-scale growth and transfer of directional Carbon Nanotubes and misaligned-Carbon-Nanotube-immune logic structures 2008 ,		33
244	High-performance carbon nanotube field-effect transistors 2014 ,		32
243	Current Scaling in Aligned Carbon Nanotube Array Transistors With Local Bottom Gating. <i>IEEE Electron Device Letters</i> , 2010 , 31, 644-646	4.4	32
242	. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 2969-2978	2.9	32
241	Metal/III-V effective barrier height tuning using atomic layer deposition of high- γ high- Γ bilayer interfaces. <i>Applied Physics Letters</i> , 2011 , 99, 092107	3.4	32
240	Biomimetic Approaches for Fabricating High-Density Nanopatterned Arrays. <i>Chemistry of Materials</i> , 2007 , 19, 839-843	9.6	32
239	Rapid Co-Optimization of Processing and Circuit Design to Overcome Carbon Nanotube Variations. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2015 , 34, 1082-1095	2.5	31
238	. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 1361-1370	2.9	31
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236	Design and optimization methodology for 3D RRAM arrays 2013 ,		30
235	Phase change nanodot arrays fabricated using a self-assembly diblock copolymer approach. <i>Applied Physics Letters</i> , 2007 , 91, 013104	3.4	30

234	Experimental demonstration of array-level learning with phase change synaptic devices 2013 ,		29
233	Analysis of the Frequency Response of Carbon Nanotube Transistors. <i>IEEE Nanotechnology Magazine</i> , 2006 , 5, 599-605	2.6	29
232	. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 2197-2204	2.9	28
231	AC conductance measurement and analysis of the conduction processes in HfOx based resistive switching memory. <i>Applied Physics Letters</i> , 2011 , 99, 232105	3.4	28
230	Ultralow Voltage Crossbar Nonvolatile Memory Based on Energy-Reversible NEM Switches. <i>IEEE Electron Device Letters</i> , 2009 , 30, 626-628	4.4	28
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228	Monolithic Integration of CMOS VLSI and Carbon Nanotubes for Hybrid Nanotechnology Applications. <i>IEEE Nanotechnology Magazine</i> , 2008 , 7, 636-639	2.6	28
227	Vertical and Lateral Copper Transport through Graphene Layers. <i>ACS Nano</i> , 2015 , 9, 8361-7	16.7	27
226	Block copolymer directed self-assembly (DSA) aware contact layer optimization for 10 nm 1D standard cell library 2013 ,		27
225	Ultrafast terahertz-induced response of GeSbTe phase-change materials. <i>Applied Physics Letters</i> , 2014 , 104, 251907	3.4	27
224	Modeling the switching dynamics of programmable-metallization-cell (PMC) memory and its application as synapse device for a neuromorphic computation system 2010 ,		27
223	. <i>IEEE Transactions on Electron Devices</i> , 2010 , 57, 1037-1046	2.9	27
222	An Integrated Phase Change Memory Cell With Ge Nanowire Diode For Cross-Point Memory 2007 ,		27
221	Resistive RAM With Multiple Bits Per Cell: Array-Level Demonstration of 3 Bits Per Cell. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 641-646	2.9	27
220	Hyperdimensional Computing Exploiting Carbon Nanotube FETs, Resistive RAM, and Their Monolithic 3D Integration. <i>IEEE Journal of Solid-State Circuits</i> , 2018 , 53, 3183-3196	5.5	27
219	Engineering thermal and electrical interface properties of phase change memory with monolayer MoS ₂ . <i>Applied Physics Letters</i> , 2019 , 114, 082103	3.4	26
218	Phase change nanodots patterning using a self-assembled polymer lithography and crystallization analysis. <i>Journal of Applied Physics</i> , 2008 , 104, 074312	2.5	26
217	Graphene Interconnect Lifetime: A Reliability Analysis. <i>IEEE Electron Device Letters</i> , 2012 , 33, 1604-1606	4.4	25

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215	A 3D Multi-Aperture Image Sensor Architecture 2006 ,		25
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