

# Byoung Hun Lee

## List of Publications by Year in descending order

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274  
papers

9,482  
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50276

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87  
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274  
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274  
docs citations

274  
times ranked

11265  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal stability and electrical characteristics of ultrathin hafnium oxide gate dielectric reoxidized with rapid thermal annealing. Applied Physics Letters, 2000, 76, 1926-1928.	3.3	581
2	Charge-transfer-based Gas Sensing Using Atomic-layer MoS <sub>2</sub> . Scientific Reports, 2015, 5, 8052.	3.3	489
3	Gate stack technology for nanoscale devices. Materials Today, 2006, 9, 32-40.	14.2	463
4	Chemical Sensing of 2D Graphene/MoS <sub>2</sub> Heterostructure device. ACS Applied Materials & Interfaces, 2015, 7, 16775-16780.	8.0	375
5	Negative oxygen vacancies in HfO <sub>2</sub> as charge traps in high-k stacks. Applied Physics Letters, 2006, 89, 082908.	3.3	295
6	Neuromorphic Hardware System for Visual Pattern Recognition With Memristor Array and CMOS Neuron. IEEE Transactions on Industrial Electronics, 2015, 62, 2410-2419.	7.9	231
7	Electrical characteristics of highly reliable ultrathin hafnium oxide gate dielectric. IEEE Electron Device Letters, 2000, 21, 181-183.	3.9	214
8	Highly Flexible and Transparent Multilayer MoS <sub>2</sub> Transistors with Graphene Electrodes. Small, 2013, 9, 3295-3300.	10.0	189
9	Electrical and reliability characteristics of ZrO <sub>2</sub> deposited directly on Si for gate dielectric application. Applied Physics Letters, 2000, 77, 3269-3271.	3.3	165
10	Bifunctional Sensing Characteristics of Chemical Vapor Deposition Synthesized Atomic-Layered MoS <sub>2</sub> . ACS Applied Materials & Interfaces, 2015, 7, 2952-2959.	8.0	162
11	Sub-10 nm Graphene Nanoribbon Array Field-Effect Transistors Fabricated by Block Copolymer Lithography. Advanced Materials, 2013, 25, 4723-4728.	21.0	150
12	Spectroscopic ellipsometry characterization of high-k dielectric HfO <sub>2</sub> thin films and the high-temperature annealing effects on their optical properties. Applied Physics Letters, 2002, 80, 1249-1251.	3.3	148
13	Epitaxial Synthesis of Molybdenum Carbide and Formation of a Mo <sub>2</sub> C/MoS <sub>2</sub> Hybrid Structure via Chemical Conversion of Molybdenum Disulfide. ACS Nano, 2018, 12, 338-346.	14.6	148
14	The effect of interfacial layer properties on the performance of Hf-based gate stack devices. Journal of Applied Physics, 2006, 100, 094108.	2.5	135
15	Electronic system with memristive synapses for pattern recognition. Scientific Reports, 2015, 5, 10123.	3.3	133
16	Mechanism of Electron Trapping and Characteristics of Traps in HfO <sub>2</sub> Gate Stacks. IEEE Transactions on Device and Materials Reliability, 2007, 7, 138-145.	2.0	128
17	Fast transient charging at the graphene/SiO <sub>2</sub> interface causing hysteretic device characteristics. Applied Physics Letters, 2011, 98, .	3.3	122
18	Flexible organic solar cells composed of P3HT:PCBM using chemically doped graphene electrodes. Nanotechnology, 2012, 23, 344013.	2.6	119

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19	Neuromorphic speech systems using advanced ReRAM-based synapse. , 2013, , .		118
20	Effects of interfacial layer growth on the electrical characteristics of thin titanium oxide films on silicon. Applied Physics Letters, 1999, 74, 3143-3145.	3.3	114
21	Nucleation and growth study of atomic layer deposited HfO <sub>2</sub> gate dielectrics resulting in improved scaling and electron mobility. Journal of Applied Physics, 2006, 99, 023508.	2.5	109
22	Ultrathin zirconium silicate film with good thermal stability for alternative gate dielectric application. Applied Physics Letters, 2000, 77, 1704-1706.	3.3	108
23	RRAM-based synapse for neuromorphic system with pattern recognition function. , 2012, , .		108
24	Low-temperature-grown continuous graphene films from benzene by chemical vapor deposition at ambient pressure. Scientific Reports, 2015, 5, 17955.	3.3	108
25	Nanoscale RRAM-based synaptic electronics: toward a neuromorphic computing device. Nanotechnology, 2013, 24, 384009.	2.6	103
26	Work function engineering using lanthanum oxide interfacial layers. Applied Physics Letters, 2006, 89, 232103.	3.3	100
27	Modulation of the Electronic Properties of MXene (Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> ) via Surface-Covalent Functionalization with Diazonium. ACS Nano, 2021, 15, 1388-1396.	14.6	100
28	Tailoring Crystallographic Orientations to Substantially Enhance Charge Separation Efficiency in Anisotropic BiVO <sub>4</sub> Photoanodes. ACS Catalysis, 2018, 8, 5952-5962.	11.2	85
29	Two-Dimensional Atomic-Layered Alloy Junctions for High-Performance Wearable Chemical Sensor. ACS Applied Materials & Interfaces, 2016, 8, 19635-19642.	8.0	83
30	Fibre-optic sensing applications of a pair of long-period fibre gratings. Measurement Science and Technology, 2001, 12, 778-781.	2.6	77
31	Alloyed 2D Metal-Semiconductor Atomic Layer Junctions. Nano Letters, 2016, 16, 1890-1895.	9.1	77
32	Robust and stretchable indium gallium zinc oxide-based electronic textiles formed by cilia-assisted transfer printing. Nature Communications, 2016, 7, 11477.	12.8	73
33	Interfacial Layer-Induced Mobility Degradation in High-k Transistors. Japanese Journal of Applied Physics, 2004, 43, 7899-7902.	1.5	70
34	Plasmonic Transition Metal Carbide Electrodes for High-Performance InSe Photodetectors. ACS Nano, 2019, 13, 8804-8810.	14.6	69
35	ZnO composite nanolayer with mobility edge quantization for multi-value logic transistors. Nature Communications, 2019, 10, 1998.	12.8	67
36	Effects of multi-layer graphene capping on Cu interconnects. Nanotechnology, 2013, 24, 115707.	2.6	66

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37	Sulfur vacancy-induced reversible doping of transition metal disulfides via hydrazine treatment. <i>Nanoscale</i> , 2017, 9, 9333-9339.	5.6	66
38	Pulsed $I_{\{d\}}$ – $V_{\{g\}}$ Methodology and Its Application to Electron-Trapping Characterization and Defect Density Profiling. <i>IEEE Transactions on Electron Devices</i> , 2009, 56, 1322-1329.	3.0	65
39	Alloyed 2D Metal–Semiconductor Heterojunctions: Origin of Interface States Reduction and Schottky Barrier Lowering. <i>Nano Letters</i> , 2016, 16, 5928-5933.	9.1	57
40	Transition–Metal–Carbide ( $\text{Mo}_{2}\text{C}$ ) Multiperiod Gratings for Realization of High–Sensitivity and Broad–Spectrum Photodetection. <i>Advanced Functional Materials</i> , 2019, 29, 1905384.	14.9	57
41	Metal Electrode/High- $k$ Dielectric Gate-Stack Technology for Power Management. <i>IEEE Transactions on Electron Devices</i> , 2008, 55, 8-20.	3.0	56
42	Breakdown in the metal/high- $k$ gate stack: Identifying the weak link in the multilayer dielectric. , 2008, , .		55
43	High–Responsivity Near–Infrared Photodetector Using Gate–Modulated Graphene/Germanium Schottky Junction. <i>Advanced Electronic Materials</i> , 2019, 5, 1800957.	5.1	54
44	Mechanism of the effects of low temperature $\text{Al}_2\text{O}_3$ passivation on graphene field effect transistors. <i>Carbon</i> , 2013, 53, 182-187.	10.3	53
45	Gate–Controlled Graphene–Silicon Schottky Junction Photodetector. <i>Small</i> , 2018, 14, e1801182.	10.0	53
46	Perovskite multifunctional logic gates via bipolar photoresponse of single photodetector. <i>Nature Communications</i> , 2022, 13, 720.	12.8	53
47	Quantitative analysis of hysteretic reactions at the interface of graphene and $\text{SiO}_2$ using the short pulse $I$ – $V$ method. <i>Carbon</i> , 2013, 60, 453-460.	10.3	51
48	Metal gate work function engineering using $\text{AlN}_x$ interfacial layers. <i>Applied Physics Letters</i> , 2006, 88, 112114.	3.3	50
49	Au nanoparticle-decorated graphene electrodes for GaN-based optoelectronic devices. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	48
50	$\text{HfO}_2/\text{HfS}_2$ hybrid heterostructure fabricated <i>via</i> controllable chemical conversion of two-dimensional $\text{HfS}_2$ . <i>Nanoscale</i> , 2018, 10, 18758-18766.	5.6	48
51	Ternary Full Adder Using Multi-Threshold Voltage Graphene Barristors. <i>IEEE Electron Device Letters</i> , 2018, 39, 1948-1951.	3.9	46
52	Ultrathin hafnium oxide with low leakage and excellent reliability for alternative gate dielectric application. , 0, , .		45
53	Validity of constant voltage stress based reliability assessment of high- $\kappa$ devices. <i>IEEE Transactions on Device and Materials Reliability</i> , 2005, 5, 20-25.	2.0	43
54	Demonstration of Complementary Ternary Graphene Field-Effect Transistors. <i>Scientific Reports</i> , 2016, 6, 39353.	3.3	42

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55	Template-engineered epitaxial BiVO <sub>4</sub> photoanodes for efficient solar water splitting. Journal of Materials Chemistry A, 2017, 5, 18831-18838.	10.3	42
56	Charge trapping and detrapping characteristics in hafnium silicate gate stack under static and dynamic stress. IEEE Electron Device Letters, 2005, 26, 197-199.	3.9	41
57	Effective work function modification of atomic-layer-deposited-TaN film by capping layer. Applied Physics Letters, 2006, 89, 032113.	3.3	41
58	Metal Decoration Effects on the Gas-Sensing Properties of 2D Hybrid-Structures on Flexible Substrates. Sensors, 2015, 15, 24903-24913.	3.8	41
59	Gate-Modulated Ultrasensitive Visible and Near-Infrared Photodetection of Oxygen Plasma-Treated WSe <sub>2</sub> Lateral pn-Homojunctions. ACS Applied Materials & Interfaces, 2020, 12, 23261-23271.	8.0	41
60	High-quality nitrogen-doped graphene films synthesized from pyridine via two-step chemical vapor deposition. Carbon, 2020, 159, 579-585.	10.3	40
61	Characteristics of a pressure sensitive touch sensor using a piezoelectric PVDF-TrFE/MoS <sub>2</sub> stack. Nanotechnology, 2013, 24, 475501.	2.6	39
62	Highly responsive near-infrared photodetector with low dark current using graphene/germanium Schottky junction with Al <sub>2</sub> O <sub>3</sub> interfacial layer. Nanophotonics, 2021, 10, 1573-1579.	6.0	39
63	Hot carrier degradation of HfSiON gate dielectrics with TiN electrode. IEEE Transactions on Device and Materials Reliability, 2005, 5, 177-182.	2.0	38
64	Dielectric Dispersion and High Field Response of Multilayer Hexagonal Boron Nitride. Advanced Functional Materials, 2018, 28, 1804235.	14.9	38
65	Resonant optical nonlinearity measurement of Yb <sup>3+</sup> /Al <sup>3+</sup> codoped optical fibers by use of a long-period fiber grating pair. Optics Letters, 2002, 27, 580.	3.3	37
66	Mobility evaluation in transistors with charge-trapping gate dielectrics. Applied Physics Letters, 2005, 87, 042905.	3.3	37
67	Highly Bendable In-Ga-ZnO Thin Film Transistors by Using a Thermally Stable Organic Dielectric Layer. Scientific Reports, 2016, 6, 37764.	3.3	35
68	Improved interface quality and charge-trapping characteristics of MOSFETs with high- $\kappa$ gate dielectric. IEEE Electron Device Letters, 2005, 26, 725-727.	3.9	34
69	Charge transfer in graphene/polymer interfaces for CO <sub>2</sub> detection. Nano Research, 2018, 11, 3529-3536.	10.4	34
70	Graphene transfer in vacuum yielding a high quality graphene. Carbon, 2015, 93, 286-294.	10.3	33
71	Comparison of effective work function extraction methods using capacitance and current measurement techniques. IEEE Electron Device Letters, 2006, 27, 598-601.	3.9	32
72	Effect of the Interfacial SiO <sub>2</sub> Layer in High- $\kappa$ HfO <sub>2</sub> Gate Stacks on NBTI. IEEE Transactions on Device and Materials Reliability, 2008, 8, 47-61.	2.0	32

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73	Wafer-Scale Integration of Highly Uniform and Scalable MoS <sub>2</sub> Transistors. ACS Applied Materials & Interfaces, 2017, 9, 37146-37153.	8.0	32
74	MOSFET devices with polysilicon on single-layer HfO <sub>2</sub> / high-K dielectrics. , 0, , .		31
75	Self-formed Schottky barrier induced selector-less RRAM for crosspoint memory applications. Physica Status Solidi - Rapid Research Letters, 2012, 6, 454-456.	2.4	31
76	MXenes for future nanophotonic device applications. Nanophotonics, 2020, 9, 1831-1853.	6.0	31
77	Ferroelectric polymer-gated graphene memory with high speed conductivity modulation. Nanotechnology, 2013, 24, 175202.	2.6	30
78	Oxide based nanoscale analog synapse device for neural signal recognition system. , 2015, , .		30
79	Shear stress-induced enhancement of the piezoelectric properties of PVDF-TrFE thin films. Organic Electronics, 2016, 28, 67-72.	2.6	29
80	Intrinsic photocurrent characteristics of graphene photodetectors passivated with Al <sub>2</sub> O <sub>3</sub> . Optics Express, 2013, 21, 23391.	3.4	28
81	Complementary Unipolar WS <sub>2</sub> Field-Effect Transistors Using Fermi-Level Depinning Layers. Advanced Electronic Materials, 2016, 2, 1500278.	5.1	28
82	Zero-Bias Operation of CVD Graphene Photodetector with Asymmetric Metal Contacts. ACS Photonics, 2018, 5, 365-370.	6.6	28
83	Effects of Structural Properties of Hf-Based Gate Stack on Transistor Performance. Materials Research Society Symposia Proceedings, 2004, 811, 176.	0.1	27
84	Intrinsic Threshold Voltage Instability of the HfO <sub>2</sub> NMOS Transistors. , 2006, , .		26
85	Electric-field-driven dielectric breakdown of metal-insulator-metal hafnium silicate. Applied Physics Letters, 2007, 91, .	3.3	26
86	Charge trapping and detrapping characteristics in hafnium silicate gate dielectric using an inversion pulse measurement technique. Applied Physics Letters, 2005, 87, 122901.	3.3	25
87	A facile process to achieve hysteresis-free and fully stabilized graphene field-effect transistors. Nanoscale, 2015, 7, 4013-4019.	5.6	25
88	Contact Resistance Reduction of WS <sub>2</sub> FETs Using High-Pressure Hydrogen Annealing. IEEE Journal of the Electron Devices Society, 2018, 6, 164-168.	2.1	25
89	Avalanche Carrier Multiplication in Multilayer Black Phosphorus and Avalanche Photodetector. Small, 2019, 15, e1805352.	10.0	25
90	High-responsivity PtSe <sub>2</sub> photodetector enhanced by photogating effect. Applied Physics Letters, 2021, 118, .	3.3	25

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91	Thermal response of Ru electrodes in contact with SiO <sub>2</sub> and Hf-based high-k gate dielectrics. Journal of Applied Physics, 2005, 98, 043520.	2.5	24

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109	Al <sub>2</sub> O <sub>3</sub> -Induced Sub-Gap Doping on the IGZO Channel for the Detection of Infrared Light. ACS Applied Electronic Materials, 2020, 2, 1478-1483.	4.3	19
110	Highly manufacturable advanced gate-stack technology for sub-45-nm self-aligned gate-first CMOSFETs. IEEE Transactions on Electron Devices, 2006, 53, 979-989.	3.0	18
111	Band Edge n-MOSFETs with High-k/Metal Gate Stacks Scaled to EOT=0.9nm with Excellent Carrier Mobility and High Temperature Stability. , 2006, , .		18
112	Effects of metal gate-induced strain on the performance of metal-oxide-semiconductor field effect transistors with titanium nitride gate electrode and hafnium oxide dielectric. Applied Physics Letters, 2007, 91, .	3.3	18
113	Electrical characterization and analysis techniques for the high- $\Gamma^{\circ}$ era. Microelectronics Reliability, 2007, 47, 479-488.	1.7	18
114	Ultraviolet emission from a multi-layer graphene/MgZnO/ZnO light-emitting diode. Applied Physics Letters, 2014, 104, 051120.	3.3	18
115	Generalized Scheme for High Performing Photodetectors with a p-type 2D Channel Layer and n-type Nanoparticles. Small, 2018, 14, 1703065.	10.0	18
116	A negative electrocaloric effect in an antiferroelectric zirconium dioxide thin film. Nanoscale, 2020, 12, 3894-3901.	5.6	18
117	Transient Charging and Relaxation in High-k Gate Dielectrics and Their Implications. Japanese Journal of Applied Physics, 2005, 44, 2415-2419.	1.5	17
118	Stress field analysis to understand the breakdown characteristics of stacked high-k dielectrics. Applied Physics Letters, 2009, 94, 162904.	3.3	17
119	Process-Dependent N/PBTI Characteristics of TiN Gate FinFETs. IEEE Electron Device Letters, 2012, 33, 937-939.	3.9	17
120	Threshold Voltage Modulation of a Graphene-ZnO Barristor Using a Polymer Doping Process. Advanced Electronic Materials, 2019, 5, 1800805.	5.1	17
121	Influence of extrinsic factors on accuracy of mobility extraction in graphene metal-oxide-semiconductor field effect transistors. Applied Physics Letters, 2013, 102, .	3.3	16
122	Extraction of the Interface State Density of Top-Gate Graphene Field-Effect Transistors. IEEE Electron Device Letters, 2015, 36, 408-410.	3.9	16
123	Decoupling of cold-carrier effects in hot-carrier reliability assessment of HfO <sub>2</sub> /sub 2/ gated nMOSFETs. IEEE Electron Device Letters, 2006, 27, 662-664.	3.9	15
124	A Study of Strain Engineering Using CESL Stressor on Reliability Comparing Effect of Intrinsic Mechanical Stress. IEEE Electron Device Letters, 2009, 30, 760-762.	3.9	15
125	Quantitatively estimating defects in graphene devices using discharge current analysis method. Scientific Reports, 2015, 4, 4886.	3.3	15
126	Monolayer MoS <sub>2</sub> metal insulator transition based memcapacitor modeling with extension to a ternary device. AIP Advances, 2016, 6, .	1.3	15



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127	Quantitative Analysis of Deuterium Annealing Effect on Poly-Si TFTs by Low Frequency Noise and DC Characterization. IEEE Transactions on Electron Devices, 2018, 65, 1640-1644.	3.0	15
128	Quantitative Analysis of High-Pressure Deuterium Annealing Effects on Vertically Stacked Gate-All-Around SONOS Memory. IEEE Transactions on Electron Devices, 2020, 67, 3903-3907.	3.0	15
129	High Gain and Broadband Absorption Graphene Photodetector Decorated with Bi <sub>2</sub> Te <sub>3</sub> Nanowires. Nanomaterials, 2021, 11, 755.	4.1	15
130	Localized transient charging and its implication on the hot carrier reliability of HfSiON MOSFETs. , 0, , .		14
131	Trapping/De-Trapping Gate Bias Dependence of Hf-Silicate Dielectrics with Poly and TiN Gate Electrode. Japanese Journal of Applied Physics, 2005, 44, 2420-2423.	1.5	14
132	Correlation between the hysteresis and the initial defect density of graphene. Applied Physics Letters, 2013, 103, 083110.	3.3	14
133	Development of a Semiempirical Compact Model for DC/AC Cell Operation of $\text{HfO}_2$ -Based ReRAMs. IEEE Electron Device Letters, 2013, 34, 1133-1135.	3.9	14
134	Reduction of low-frequency noise in multilayer MoS <sub>2</sub> FETs using a Fermi-level depinning layer. Physica Status Solidi - Rapid Research Letters, 2016, 10, 634-638.	2.4	14
135	Effect of ribbon width on electrical transport properties of graphene nanoribbons. Nano Convergence, 2018, 5, 7.	12.1	14
136	Probing stress effects in HfO <sub>2</sub> gate stacks with time dependent measurements. Microelectronics Reliability, 2005, 45, 806-810.	1.7	13
137	Effects of boron diffusion in pMOSFETs with TiN-HfSiO gate stack. IEEE Electron Device Letters, 2005, 26, 366-368.	3.9	13
138	Electrical characteristics of wrinkle-free graphene formed by laser graphitization of 4H-SiC. Applied Physics Letters, 2011, 99, 082111.	3.3	13
139	Correlation of low frequency noise characteristics with the interfacial charge exchange reaction at graphene devices. Carbon, 2012, 50, 4046-4051.	10.3	13
140	Patterned catalyst arrays of Pd/SnO <sub>2</sub> core-shell nanowires for electrooxidations of biomass-derived alcohols. Journal of Materials Chemistry A, 2015, 3, 13492-13499.	10.3	13
141	Copper-graphene heterostructure for back-end-of-line compatible high-performance interconnects. Npj 2D Materials and Applications, 2021, 5, .	7.9	13
142	The Effect of Nanoscale Nonuniformity of Oxygen Vacancy on Electrical and Reliability Characteristics of $\text{HfO}_2$ MOSFET Devices. IEEE Electron Device Letters, 2008, 29, 54-56.	3.9	12
143	Advantages of a buried-gate structure for graphene field-effect transistor. Semiconductor Science and Technology, 2019, 34, 055010.	2.0	12
144	Novel multi-bit memory device using metal/PVDF-TrFE/graphene stack. Microelectronic Engineering, 2013, 109, 87-89.	2.4	11

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145	Intrinsic Time Zero Dielectric Breakdown Characteristics of HfAlO Alloys. IEEE Transactions on Electron Devices, 2013, 60, 3683-3689.	3.0	11
146	A Correlation Between Oxygen Vacancies and Reliability Characteristics in a Single Zirconium Oxide Metal-Insulator-Metal Capacitor. IEEE Transactions on Electron Devices, 2014, 61, 2619-2627.	3.0	11
147	Contact resistance improvement by the modulation of peripheral length to area ratio of graphene contact pattern. Applied Physics Letters, 2015, 106, .	3.3	11
148	Operation Mechanism of a MoS <sub>2</sub> /BP Heterojunction FET. Nanomaterials, 2018, 8, 797.	4.1	11
149	Performance enhancement of graphene/Ge near-infrared photodetector by modulating the doping level of graphene. APL Photonics, 2022, 7, .	5.7	11
150	Demonstration of Anti-ambipolar Switch and Its Applications for Extremely Low Power Ternary Logic Circuits. ACS Nano, 2022, 16, 10994-11003.	14.6	11
151	Performance of MOSFETs with ultra thin ZrO <sub>2</sub> and Zr silicate gate dielectrics. , 0, , .		10
152	Rotor saliency improved structural design for cost reduction in single-phase line-start permanent magnet motor. , 2009, , .		10
153	A nitrogen-treated memristive device for tunable electronic synapses. Semiconductor Science and Technology, 2014, 29, 104006.	2.0	10
154	Flexible Transparent Nanogenerators Utilizing Shape-Modulated ZnO Nanorod Arrays on Graphene Electrodes. Advanced Materials Technologies, 2018, 3, 1700355.	5.8	10
155	Facile process to clean PMMA residue on graphene using KrF laser annealing. AIP Advances, 2018, 8, .	1.3	10
156	Gate First Metal-Aluminum-Nitride PMOS Electrodes for 32nm Low Standby Power Applications. , 2007, , .		9
157	Characteristics of light-induced electron transport from P3HT to ZnO-nanowire field-effect transistors. Applied Physics Letters, 2013, 103, 223305.	3.3	9
158	Operation Principles of ZnO/Al <sub>2</sub> O <sub>3</sub> /DMP/ZnO Stacked-Channel Ternary Thin-Film Transistor. Advanced Electronic Materials, 2021, 7, 2100247.	5.1	9
159	Effect of barrier layer on the electrical and reliability characteristics of high-k gate dielectric films. , 0, , .		8
160	Comparison of Low-Frequency Noise in Channel and Gate-Induced Drain Leakage Currents of High- $k$ nFETs. IEEE Electron Device Letters, 2010, 31, 1086-1088.	3.9	8
161	Pulsed KrF laser-assisted direct deposition of graphitic capping layer for Cu interconnect. Carbon, 2017, 123, 307-310.	10.3	8
162	Tunable graphene doping by modulating the nanopore geometry on a SiO <sub>2</sub> /Si substrate. RSC Advances, 2018, 8, 9031-9037.	3.6	8

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163	Chemically doped graphene based ternary field effect transistors. Japanese Journal of Applied Physics, 2019, 58, SBBH04.	1.5	8
164	Low-Power Complementary Logic Circuit Using Polymer-Electrolyte-Gated Graphene Switching Devices. ACS Applied Materials & Interfaces, 2019, 11, 47247-47252.	8.0	8
165	Extreme Low Power Technology using Ternary Arithmetic Logic Circuits via Drastic Interconnect Length Reduction. , 2020, , .		8
166	Integration issues of high-k gate stack: Process-induced charging. , 0, , .		7
167	Time-Dependent Dielectric Breakdown of $\text{La}_{2}\text{O}_{3}$ -Doped High-k Metal Gate Stacked NMOSFETs. IEEE Electron Device Letters, 2009, 30, 298-301.	3.9	7
168	Hot-Carrier Instability of nMOSFETs Under Pseudorandom Bit Sequence Stress. IEEE Electron Device Letters, 2016, 37, 366-368.	3.9	7
169	High-pressure oxygen annealing of $\text{Al}_{2}\text{O}_{3}$ passivation layer for performance enhancement of graphene field-effect transistors. Nanotechnology, 2018, 29, 055202.	2.6	7
170	Contact resistance reduction of ZnO thin film transistors (TFTs) with saw-shaped electrode. Nanotechnology, 2018, 29, 325202.	2.6	7
171	Demonstration of ternary devices and circuits using dual channel graphene barristors. , 2019, , .		7
172	Hot-Carrier Degradation Estimation of a Silicon-on-Insulator Tunneling FET Using Ambipolar Characteristics. IEEE Electron Device Letters, 2019, 40, 1716-1719.	3.9	7
173	Nitrogen ( $\text{N}_{2}$ ) Implantation to Suppress Growth of Interfacial Oxide in MOCVD Bst and Sputtered Bst Films. Materials Research Society Symposia Proceedings, 1999, 567, 521.	0.1	6
174	Modulation of the work function of silicon gate electrode using thin TaN interlayers. Applied Physics Letters, 2005, 87, 052109.	3.3	6
175	High Performance Metal Gate CMOSFETs with Aggressively Scaled Hf-Based High-k. ECS Transactions, 2006, 1, 609-623.	0.5	6
176	Effects of ALD TiN Metal Gate Thickness on Metal Gate /High-k Dielectric SOI FinFET Characteristics. SOI Conference, Proceedings of the IEEE International, 2006, , .	0.0	6
177	A Novel Bias Temperature Instability Characterization Methodology for High-k MOSFETs. Solid-State Device Research Conference, 2008 ESSDERC 2008 38th European, 2006, , .	0.0	6
178	Negative Bias Temperature Instability Dependence on Dielectric Thickness and Nitrogen Concentration in Ultra-scaled HfSiON Dielectric/TiN Gate Stacks. Japanese Journal of Applied Physics, 2006, 45, 2945-2948.	1.5	6
179	Effect of Si interlayer thickness and post-metallization annealing on Ge MOS capacitor on Ge-on-Si substrate. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2008, 154-155, 102-105.	3.5	6
180	A comparative study of reliability and performance of strain engineering using CESL stressor and mechanical strain. , 2008, , .		6

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181	Device and reliability improvement of HfSiON+LaOx/metal gate stacks for 22nm node application. , 2008, , .		6
182	Effective surface passivation methodologies for high performance germanium metal oxide semiconductor field effect transistors. Applied Physics Letters, 2008, 93, 192115.	3.3	6
183	Quantitative analysis of interfacial reactions at a graphene/SiO2 interface using the discharge current analysis method. Applied Physics Letters, 2014, 104, 151604.	3.3	6
184	Design of Ratioless Ternary Inverter Using Graphene Barristor. , 2016, , .		6
185	Piezoelectrically modulated touch pressure sensor using a graphene barristor. Japanese Journal of Applied Physics, 2019, 58, SBBH03.	1.5	6
186	High-performance near-infrared photodetectors based on gate-controlled grapheneâ€“germanium Schottky junction with split active junction. Nanophotonics, 2022, 11, 1041-1049.	6.0	6
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