

# Ga-Won Lee

## List of Publications by Year in descending order

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113  
papers

625  
citations

759233

12  
h-index

752698

20  
g-index

115  
all docs

115  
docs citations

115  
times ranked

809  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interaction of zinc interstitial with oxygen vacancy in zinc oxide: An origin of n-type doping. Solid State Communications, 2012, 152, 1711-1714.	1.9	54
2	Investigation of zinc interstitial ions as the origin of anomalous stress-induced hump in amorphous indium gallium zinc oxide thin film transistors. Applied Physics Letters, 2013, 102, .	3.3	35
3	Characterization of Random Telegraph Signal Noise of High-Performance p-MOSFETs With a High- $k$ Dielectric/Metal Gate. IEEE Electron Device Letters, 2011, 32, 686-688.	3.9	29
4	Trap evaluations of metal/oxide/silicon field-effect transistors with high- $k$ gate dielectric using charge pumping method. Applied Physics Letters, 2002, 81, 2050-2052.	3.3	26
5	Improvement of Thermal Stability of Ni Germanide Using a Ni-Pt(1%) Alloy on Ge-on-Si Substrate for Nanoscale Ge MOSFETs. IEEE Nanotechnology Magazine, 2010, 9, 258-263.	2.0	23
6	Crystal Quality Effect on Low-Frequency Noise in ZnO TFTs. IEEE Electron Device Letters, 2011, 32, 1701-1703.	3.9	21
7	Simplified Bilayer White Phosphorescent Organic Light-Emitting Diodes. ETRI Journal, 2016, 38, 260-264.	2.0	21
8	Ni Germanide Utilizing Ytterbium Interlayer for High-Performance Ge MOSFETs. Electrochemical and Solid-State Letters, 2009, 12, H18.	2.2	20
9	Anomalous Stress-Induced Hump Effects in Amorphous Indium Gallium Zinc Oxide TFTs. Transactions on Electrical and Electronic Materials, 2012, 13, 47-49.	1.9	19
10	Investigation of atomic-layer-deposited Al-doped ZnO film for AZO/ZnO double-stacked active layer thin-film transistor application. Thin Solid Films, 2017, 638, 89-95.	1.8	18
11	Conduction Mechanism and Reliability Characteristics of a Metal-Insulator-Metal Capacitor with Single $ZrO_2$ Layer. Japanese Journal of Applied Physics, 2011, 50, 04DD02.	1.5	14
12	Instability dependent upon bias and temperature stress in amorphous indium gallium zinc oxide (a-IGZO) thin-film transistors. Journal of the Society for Information Display, 2010, 18, 108-112.	2.1	13
13	Characterization of Polymetal Gate Transistors With Low-Temperature Atomic-Layer-Deposition-Grown Oxide Spacer. IEEE Electron Device Letters, 2009, 30, 181-184.	3.9	12
14	High performance SONOS flash memory with in-situ silicon nanocrystals embedded in silicon nitride charge trapping layer. Solid-State Electronics, 2018, 140, 134-138.	1.4	12
15	Work function variation of nickel silicide using an ytterbium buffer layer for Schottky barrier metal-oxide-semiconductor field-effect transistors. Journal of Applied Physics, 2007, 101, 103710.	2.5	11
16	Phase Separation of Ni Germanide Formed on a Ge-on-Si Structure for Ge MOSFETs. Electrochemical and Solid-State Letters, 2008, 11, H1.	2.2	11
17	Colored semi-transparent organic light-emitting diodes. Journal of Information Display, 2014, 15, 177-184.	4.0	11
18	Effects of Fluorine on the NBTI Reliability and Low-Frequency Noise Characteristics of p-MOSFETs. IEEE Journal of the Electron Devices Society, 2018, , 1-1.	2.1	11

#	ARTICLE	IF	CITATIONS
19	Process Temperature Dependence of Al <sub>2</sub> O <sub>3</sub> Film Deposited by Thermal ALD as a Passivation Layer for c-Si Solar Cells. Journal of Semiconductor Technology and Science, 2013, 13, 581-588.	0.4	11
20	Blistering Induced Degradation of Thermal Stability Al <sub>2</sub> O <sub>3</sub> Passivation Layer in Crystal Si Solar Cells. Journal of Semiconductor Technology and Science, 2014, 14, 53-60.	0.4	11
21	Thermally Robust Ni Germanide Technology Using Cosputtering of Ni and Pt for High-Performance Nanoscale Ge MOSFETs. IEEE Nanotechnology Magazine, 2012, 11, 769-776.	2.0	9
22	Hysteresis analysis in excimer laser annealed low temperature polycrystalline silicon thin film transistors. Journal of the Society for Information Display, 2012, 20, 355-359.	2.1	9
23	Effects of the Al <sub>2</sub> O <sub>3</sub> interlayer in ZnO thin-film transistors fabricated via atomic layer deposition. Journal of Information Display, 2013, 14, 61-65.	4.0	9
24	Novel silicon surface passivation by Al <sub>2</sub> O <sub>3</sub> /ZnO/Al <sub>2</sub> O <sub>3</sub> films deposited by thermal atomic layer deposition. Japanese Journal of Applied Physics, 2014, 53, 04ER19.	1.5	9
25	A Light-induced Threshold Voltage Instability Based on a Negative-U Center in a-IGZO TFTs with Different Oxygen Flow Rates. Transactions on Electrical and Electronic Materials, 2014, 15, 315-319.	1.9	9
26	Decrease of Parasitic Capacitance for Improvement of RF Performance of Multi-finger MOSFETs in 90-nm CMOS Technology. Journal of Semiconductor Technology and Science, 2015, 15, 312-317.	0.4	9
27	Microstructural Innovation of Ni Germanide on Ge-on-Si Substrate by Using Palladium Incorporation. Electrochemical and Solid-State Letters, 2009, 12, H402.	2.2	8
28	Analysis of stability improvement in ZnO thin film transistor with dual-gate structure under negative bias stress. Japanese Journal of Applied Physics, 2014, 53, 04EF11.	1.5	8
29	Effect of Nitrogen Concentration on Low-Frequency Noise and Negative Bias Temperature Instability of p-Channel Metal-Oxide Semiconductor Field-Effect Transistors with Nitrided Gate Oxide. Japanese Journal of Applied Physics, 2011, 50, 10PB03.	1.5	7
30	Dependence of Hot Carrier Reliability and Low Frequency Noise on Channel Stress in Nanoscale n-Channel Metal-Oxide Semiconductor Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 10PB01.	1.5	6
31	Tunneling oxide engineering by ion implantation of nitrogen for 3D vertical silicon pillar SONOS flash memory. Microelectronic Engineering, 2013, 103, 33-35.	2.4	6
32	Additive Effect of Poly(4-vinylphenol) Gate Dielectric in Organic Thin Film Transistor at Low Temperature Process. Journal of Nanoscience and Nanotechnology, 2013, 13, 3313-3316.	0.9	6
33	Effects of Al <sub>2</sub> O <sub>3</sub> gate insulator on the instability of amorphous indium-gallium zinc oxide thin film transistors. AIP Advances, 2018, 8, .	1.3	6
34	Enhanced Photo Current in n-ZnO/p-Si Diode Via Embedded Ag Nanoparticles for the Solar Cell Application. Journal of Semiconductor Technology and Science, 2015, 15, 35-40.	0.4	6
35	Effect of Nitrogen Concentration on Low-Frequency Noise and Negative Bias Temperature Instability of p-Channel Metal-Oxide Semiconductor Field-Effect Transistors with Nitrided Gate Oxide. Japanese Journal of Applied Physics, 2011, 50, 10PB03.	1.5	6
36	Performance and Stability Characterization of Bottom Gated Amorphous Indium Gallium Zinc Oxide Thin Film Transistors Grown by RF and DC Sputtering. Japanese Journal of Applied Physics, 2009, 48, 04C134.	1.5	5

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37	Effect of source/drain overlap region on device performance in aâ€ZnO thinâ€film transistors. Journal of the Society for Information Display, 2009, 17, 735-738.	2.1	5
38	Maskless Laser Direct Patterning of PEDOT/PSS Layer for Soluble Process Organic Thin Film Transistor. Journal of Nanoscience and Nanotechnology, 2010, 10, 3185-3188.	0.9	5
39	Modeling of T-model equivalent circuit for spiral inductors in 90 nm CMOS technology. , 2015, , .		5
40	Effective Schottky barrier lowering of NiGe/p-Ge(100) using Terbium interlayer structure for high performance p-type MOSFETs. Scientific Reports, 2020, 10, 4054.	3.3	5
41	Characterization of the Dopant Dependence of Ni-Silicide on a SOI Substrate for a Nano-Scale CMOSFET. Journal of the Korean Physical Society, 2007, 50, 1883.	0.7	5
42	An analysis on applicability of Ti-doped ZnO films as the channel layer of TFTs. , 2010, , .		4
43	Investigation of the Gate Bias Stress Instability in ZnO Thin Film Transistors by Low-Frequency Noise Analysis. Japanese Journal of Applied Physics, 2013, 52, 04CF04.	1.5	4
44	Effect of fluorine implantation on recovery characteristics of p-channel MOSFET after negative bias temperature instability stress. Japanese Journal of Applied Physics, 2014, 53, 08LA03.	1.5	4
45	Investigation of Intra-Nitride Charge Migration Suppression in SONOS Flash Memory. Micromachines, 2019, 10, 356.	2.9	4
46	Improvement of Thermal Stability of Ni-Silicide Using Vacuum Annealing on Boron Cluster Implanted Ultra Shallow Source/Drain for Nano-Scale CMOSFETs. Journal of Semiconductor Technology and Science, 2010, 10, 260-264.	0.4	4
47	Dependence of Hot Carrier Reliability and Low Frequency Noise on Channel Stress in Nanoscale n-Channel Metalâ€Oxideâ€Semiconductor Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 10PB01.	1.5	4
48	High Pressure Deuterium Passivation of Charge Trapping Layer for Nonvolatile Memory Applications. Micromachines, 2021, 12, 1316.	2.9	4
49	Physical and Electrical Analysis of Poly-Si Channel Effect on SONOS Flash Memory. Micromachines, 2021, 12, 1401.	2.9	4
50	Comparison of La-based high-k dielectrics: HfLaSiON and HfLaON. Microelectronic Engineering, 2009, 86, 268-271.	2.4	3
51	Electrical Characteristic Analysis of Postannealed ZnO Thin-Film Transistors under O<sub>2</sub> Ambient. Japanese Journal of Applied Physics, 2012, 51, 09MF09.	1.5	3
52	The Effect of Thermal Annealing on Pentacene Thin Film Transistor with Micro Contact Printing. Journal of Nanoscience and Nanotechnology, 2012, 12, 5325-5329.	0.9	3
53	Investigation of the instability of low-temperature poly-silicon thin film transistors under a negative bias temperature stress. Electronic Materials Letters, 2013, 9, 13-16.	2.2	3
54	Suppression of Nickel-germanide (NiGe) Agglomeration and NiPenetration by Hydrogen (H) Ion Shower Doping in NiGe on a ThinEpitaxial Ge-on-Si Substrate. Journal of the Korean Physical Society, 2009, 55, 221-226.	0.7	3

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55	Charge Spreading Effect of Stored Charge on Retention Characteristics in SONOS NAND Flash Memory Devices. Transactions on Electrical and Electronic Materials, 2015, 16, 183-186.	1.9	3
56	Characterization of Dielectric Relaxation and Reliability of High-k MIM Capacitor Under Constant Voltage Stress. Journal of Semiconductor Technology and Science, 2014, 14, 543-548.	0.4	3
57	The Short Channel Effect Immunity of Silicon Nanowire SONOS Flash Memory Using TCAD Simulation. Transactions on Electrical and Electronic Materials, 2013, 14, 139-142.	1.9	3
58	New Charge Pumping Method for Characterization of Charge Trapping Layer in Oxide-Nitride-Oxide Structure. Japanese Journal of Applied Physics, 2008, 47, 2692-2695.	1.5	2
59	Improvement of reliability characteristics using the N <sub>2</sub> implantation in SOHOS flash memory. , 2010, , .		2
60	Study of Surface-Modified PVP Gate Dielectric in Organic Thin Film Transistors with the Nano-Particle Silver Ink Source/Drain Electrode. Journal of Nanoscience and Nanotechnology, 2011, 11, 5640-5644.	0.9	2
61	Novel Palladium Germanide Schottky Contact for High Performance Schottky Barrier Ge MOSFETs and Characterization of Its Leakage Current Mechanism. Journal of Nanoscience and Nanotechnology, 2012, 12, 5347-5350.	0.9	2
62	3D gate-all-around bandgap-engineered SONOS flash memory in vertical silicon pillar with metal gate. Solid-State Electronics, 2013, 86, 6-10.	1.4	2
63	Effect of surface pretreatment in the thermal atomic layer deposition of Al <sub>2</sub> O <sub>3</sub> for passivation of crystal Si solar cells. Japanese Journal of Applied Physics, 2014, 53, 08LC04.	1.5	2
64	Current-voltage and low-frequency noise analysis of heterojunction diodes with various passivation layers. Thin Solid Films, 2016, 598, 109-114.	1.8	2
65	Selective UV-O <sub>3</sub> treatment for indium zinc oxide thin film transistors with solution-based multiple active layer. Japanese Journal of Applied Physics, 2018, 57, 06KB01.	1.5	2
66	Gate Voltage Dependence of Low Frequency Noise in Tunneling Field Effect Transistors. Journal of Nanoscience and Nanotechnology, 2019, 19, 6083-6086.	0.9	2
67	Reliability Analysis by Charge Migration of 3D SONOS Flash Memory. , 2020, , .		2
68	Analysis of Anomalous Large RTS Noise Amplitudes in Tunneling Field-effect Transistors. Journal of Semiconductor Technology and Science, 2018, 18, 193-199.	0.4	2
69	300 mm Large Area Wire Grid Polarizers with 50 nm Half-Pitch by ArF Immersion Lithography. Nanomaterials, 2022, 12, 481.	4.1	2
70	Source/Drain Overlap Length Dependence of VT in Thin Film Transistor on a-IGZO Channel Deposited by RF and DC Sputtering. Materials Research Society Symposia Proceedings, 2008, 1108, 1.	0.1	1
71	Extraction of Energy Distribution of Nitride Traps Using Charge Pumping Method in Silicon-Oxide-Nitride-Oxide-Silicon Flash Memory. Japanese Journal of Applied Physics, 2009, 48, 04C068.	1.5	1
72	Study on palladium germanide on Ge-on-Si substrate for nanoscale Ge channel Schottky barrier MOSFETs. , 2010, , .		1

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73	Novel Ni germanide technology with co-sputtering of Ni and Pt for thermally stable Ge MOSFETs on Ge-on-Si substrate. , 2010, , .		1
74	Improvement of Heavy Dopant Doped Ni-Silicide Using Ytterbium Interlayer for Nano-Scale MOSFETs with an Ultra Shallow Junction. Journal of Nanoscience and Nanotechnology, 2011, 11, 5628-5632.	0.9	1
75	Study on optimizing the thickness of silicon window of WLP for IR sensor. Proceedings of SPIE, 2012, , .	0.8	1
76	Characterization of polycrystalline silicon-oxide-nitride-oxide-silicon devices on a SiO <sub>2</sub> or Si <sub>3</sub> N <sub>4</sub> buffer layer. Electronic Materials Letters, 2013, 9, 23-27.	2.2	1
77	Novel Ni silicide formed with a Ni/Er/Ni/TiN structure for thermal stable and low contact resistance source/drain in MOSFETs. Japanese Journal of Applied Physics, 2014, 53, 08NE05.	1.5	1
78	Origin of Oxygen-Induced Abnormal Hump in Bottom-Gated Polycrystalline Zinc Oxide Thin Film Transistors. ECS Journal of Solid State Science and Technology, 2015, 4, Q31-Q34.	1.8	1
79	The Bilayer Structure for Low-Temperature, Solution-Processed Indium Zinc Oxide Thin-Film Transistors. Journal of Nanoscience and Nanotechnology, 2016, 16, 8692-8695.	0.9	1
80	Low frequency noise of silicon based tunneling field effect transistors. , 2018, , .		1
81	Investigation of Positive Bias Temperature Instability Characteristics of Fully Depleted Silicon on Insulator Tunneling Field Effect Transistor with High-k Dielectric Gate Stacks. Journal of Nanoscience and Nanotechnology, 2019, 19, 6131-6134.	0.9	1
82	Extraction of Effective Charge Diffusivity in the Charge Trapping Layer of SONOS Flash Memory. Transactions on Electrical and Electronic Materials, 2021, 22, 432-438.	1.9	1
83	Pillar Type Silicon-Oxide-Nitride-Oxide-Silicon Flash Memory Cells with Modulated Tunneling Oxide. Transactions on Electrical and Electronic Materials, 2013, 14, 250-253.	1.9	1
84	A Study on Contact Resistance Reduction in Ni Germanide/Ge using Sb Interlayer. Journal of Semiconductor Technology and Science, 2016, 16, 210-214.	0.4	1
85	Improvement of Thermal Stability of Ni-Germanide with Ni/Co/Ni/TiN Structure for High Performance Ge Metal-oxide-semiconductor Field Effect Transistors. Japanese Journal of Applied Physics, 2012, 51, 02BA02.	1.5	1
86	Analysis of SOHOS Flash Memory with 3-level Charge Pumping Method. Journal of Semiconductor Technology and Science, 2014, 14, 34-39.	0.4	1
87	A Novel Atomic Layer Deposited Al <sub>2</sub> O <sub>3</sub> Film with Diluted NH <sub>4</sub> OH for High-Efficient c-Si Solar Cell. Journal of Semiconductor Technology and Science, 2014, 14, 40-47.	0.4	1
88	Identification of Interface States and Shallow and Deep Hole Traps under NBTI Stress using Fast, Normal, and Charge-pumping Measurement Techniques. Journal of Semiconductor Technology and Science, 2018, 18, 160-166.	0.4	1
89	Impact of initial-oxidation on 1/f noise and subthreshold swing of n-channel MOSFETs. , 2006, , .		0
90	Thermal Stable Nickel Silicide Utilizing Ni/Co/Ni/TiN structure and Two-Step RTP on Doped Substrate. , 2007, , .		0

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91	Thermal Stability of Nickel Silicide with Stressed Inter-Layer Dielectric Layer on Doped Si Substrate. , 2007, , .		0
92	Improvement of thermal stability and reduction of Schottky barrier height of Ni germanide utilizing Ni-Pt(1%) alloy on Ge-on-Si substrate. , 2008, , .		0
93	Device Performance and Reliability Characterization of Interface and Bulk Effect in Amorphous Indium Gallium Zinc Oxide (a-IGZO) Thin Film Transistor. Materials Research Society Symposia Proceedings, 2008, 1108, 1.	0.1	0
94	Thermal stability improvement of Ni germanide utilizing Ni-Pd alloy for nano-scale Ge MOSFETs. , 2008, , .		0
95	Tradeoff Between Hot Carrier and Negative Bias Temperature Degradations in High-Performance $\text{Si}_{1-x}\text{Ge}_x$ pMOSFETs With High-Metal Gate Stacks. IEEE Electron Device Letters, 2010, , .	3.9	0
96	Improvement of junction characteristics of ultra shallow junction with boron-cluster implantation and Ni-silicide for nano-scale CMOS technology. , 2010, , .		0
97	Thermal Endurance and Microstructural Evolution of PtGe for High-Performance Nano-Scale Ge-on-Si MOSFETs. Journal of Nanoscience and Nanotechnology, 2011, 11, 5633-5639.	0.9	0
98	Electrical Instabilities in Amorphous InGaZnO Thin Film Transistors with $\text{Si}_3\text{N}_4$ and $\text{Si}_3\text{N}_4/\text{Al}_2\text{O}_3$ Gate Dielectrics. Japanese Journal of Applied Physics, 2012, 51, 09MF10.	1.5	0
99	Improvement of Thermal Stability of Ni-Germanide with Ni/Co/Ni/TiN Structure for High Performance Ge Metal-Oxide-Semiconductor Field Effect Transistors. Japanese Journal of Applied Physics, 2012, 51, 02BA02.	1.5	0
100	Studies on transmittance of silicon with AR coating films for IR transparent window. , 2012, , .		0
101	A novel BJT structure for high- performance analog circuit applications. , 2013, , .		0
102	Channel engineering of ZnO-based thin film transistors using $\text{Al}_2\text{O}_3$ interlayer grown by atomic layer deposition. Japanese Journal of Applied Physics, 2014, 53, 091101.	1.5	0
103	Fabrication and characteristic analysis of gas sensor using nano-structure. , 2018, , .		0
104	Investigation of Random Telegraph Noise Characteristics with Intentional Hot Carrier Aging. , 2020, , .		0
105	Test Structures for Noise Reduction of Fully Depleted-Silicon on Insulator p-Type Tunneling FET Using Channel Orientation. , 2020, , .		0
106	Modeling and Verification of Interface and Bulk Trap Level Density Extraction in SONOS Memory Charge Trapping Layer. Transactions on Electrical and Electronic Materials, 2021, 22, 372-377.	1.9	0
107	Process effect analysis on nitride trap distribution in silicon-oxide-nitride-oxide-silicon flash memory based on charge retention model. Materials Express, 2021, 11, 1615-1618.	0.5	0
108	Initial Reaction of Zn Precursors with Si (001) Surface for ZnO Thin-Film Growth. Korean Journal of Materials Research, 2010, 20, 463-466.	0.2	0

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109	Effect of Aluminum on Nitrogen Solubility in Zinc Oxide: Density Functional Theory. Korean Journal of Materials Research, 2011, 21, 639-643.	0.2	0
110	Comparative Analysis of Bandgap-Engineered Pillar Type Flash Memory with HfO <sub>2</sub> and S <sub>3</sub> N <sub>4</sub> as Trapping Layer. IEICE Transactions on Electronics, 2012, E95.C, 831-836.	0.6	0
111	Electrical Characteristic Analysis of Postannealed ZnO Thin-Film Transistors under O <sub>2</sub> Ambient. Japanese Journal of Applied Physics, 2012, 51, 09MF09.	1.5	0
112	Dependence of the 1/f Noise Characteristics of CMOSFETs on Body Bias in Sub-threshold and Strong Inversion Regions. Journal of Semiconductor Technology and Science, 2013, 13, 655-661.	0.4	0
113	Temperature Dependence of Low Frequency Noise in Silicon on Insulator Tunneling Field Effect Transistor. Journal of Nanoscience and Nanotechnology, 2020, 20, 4699-4703.	0.9	0