

Jeong-Soo Lee

List of Publications by Year in descending order

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55
papers

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623734

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580821

25
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55
all docs

55
docs citations

55
times ranked

1122
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicon nanowire biosensors for detection of cardiac troponin I (cTnI) with high sensitivity. Biosensors and Bioelectronics, 2016, 77, 695-701.	10.1	167
2	U-Health Smart Home. IEEE Nanotechnology Magazine, 2011, 5, 6-11.	1.3	70
3	Single-Event Transient in FinFETs and Nanosheet FETs. IEEE Electron Device Letters, 2018, 39, 1840-1843.	3.9	38
4	Junction Design Strategy for Si Bulk FinFETs for System-on-Chip Applications Down to the 7-nm Node. IEEE Electron Device Letters, 2015, 36, 994-996.	3.9	33
5	Investigation of Low-Frequency Noise Behavior After Hot-Carrier Stress in an n-Channel Junctionless Nanowire MOSFET. IEEE Electron Device Letters, 2012, 33, 1538-1540.	3.9	29
6	Characterization of Channel-Diameter-Dependent Low-Frequency Noise in Silicon Nanowire Field-Effect Transistors. IEEE Electron Device Letters, 2012, 33, 1348-1350.	3.9	24
7	Improved Electrical Characteristics of Honeycomb Nanowire ISFETs. IEEE Electron Device Letters, 2013, 34, 1059-1061.	3.9	23
8	Suspended honeycomb nanowire ISFETs for improved stiction-free performance. Nanotechnology, 2014, 25, 345501.	2.6	20
9	Investigation of the electrical stability of Si-nanowire biologically sensitive field-effect transistors with embedded Ag/AgCl pseudo reference electrode. RSC Advances, 2013, 3, 7963.	3.6	19
10	Thermal conductivity of ZnTe nanowires. Journal of Applied Physics, 2013, 114, .	2.5	17
11	Highly sensitive photodetectors using ZnTe/ZnO core/shell nanowire field effect transistors with a tunable core/shell ratio. Journal of Materials Chemistry C, 2016, 4, 2040-2046.	5.5	17
12	Caution: Abnormal Variability Due to Terrestrial Cosmic Rays in Scaled-Down FinFETs. IEEE Transactions on Electron Devices, 2019, 66, 1887-1891.	3.0	17
13	Device Design Guidelines for Nanoscale FinFETs in RF/Analog Applications. IEEE Electron Device Letters, 2012, 33, 1234-1236.	3.9	16
14	Thermally efficient and highly scalable In ₂ Se ₃ nanowire phase change memory. Journal of Applied Physics, 2013, 113, 164303.	2.5	16
15	Analysis of Abnormal Upturns in Capacitance-Voltage Characteristics for MOS Devices With High- κ Dielectrics. IEEE Electron Device Letters, 2011, 32, 434-436.	3.9	14
16	Investigation of electromigration in In ₂ Se ₃ nanowire for phase change memory devices. Applied Physics Letters, 2013, 103, .	3.3	14
17	Quantum-well Hall devices in Si-delta-doped Al _{0.25} Ga _{0.75} As/GaAs and pseudomorphic Al _{0.25} Ga _{0.75} As/In _{0.25} Ga _{0.75} As/GaAs heterostructures grown by LP-MOCVD: performance comparisons. IEEE Transactions on Electron Devices, 1996, 43, 1665-1670.	3.0	13
18	Highly Sensitive Detection of Influenza A (H1N1) Virus With Silicon Nanonet BioFETs. IEEE Sensors Journal, 2019, 19, 10985-10990.	4.7	13

#	ARTICLE	IF	CITATIONS
19	Investigation of RC parasitics considering middle-of-the-line in si-bulk FinFETs for Sub-14-nm node logic applications. IEEE Transactions on Electron Devices, 2015, 62, 3441-3444.	3.0	11
20	A Reconfigurable and Portable Highly Sensitive Biosensor Platform for ISFET and Enzyme-Based Sensors. IEEE Sensors Journal, 2016, 16, 4443-4451.	4.7	11
21	Electrical Characteristics and pH Response of a Parylene-H Sensing Membrane in a Si-Nanonet Ion-Sensitive Field-Effect Transistor. Sensors, 2018, 18, 3892.	3.8	11
22	Soft Error in Saddle Fin Based DRAM. IEEE Electron Device Letters, 2019, 40, 494-497.	3.9	11
23	Comparative study of fabricated junctionless and inversion-mode nanowire FETs. , 2011, , .		10
24	Interfacial-Layer-Driven Dielectric Degradation and Breakdown of HfSiON/SiON Gate Dielectric nMOSFETs. IEEE Electron Device Letters, 2011, 32, 1319-1321.	3.9	9
25	Threshold Voltage Variations Due to Oblique Single Grain Boundary in Sub-50-nm Polysilicon Channel. IEEE Transactions on Electron Devices, 2014, 61, 2705-2710.	3.0	9
26	Investigation on hot carrier effects in n-type short-channel junctionless nanowire transistors. , 2012, , .		6
27	Electrical and pH sensing characteristics of Si nanowire-based suspended FET biosensors. , 2014, , .		6
28	Physical DC and thermal noise models of 18 nm double-gate junctionless p-type MOSFETs for low noise RF applications. Japanese Journal of Applied Physics, 2015, 54, 04DC08.	1.5	5
29	Highly Enhanced Performance of Network Channel Polysilicon Thin-Film Transistors. IEEE Electron Device Letters, 2017, 38, 187-190.	3.9	5
30	Investigation of thermal resistance and power consumption in Ga-doped indium oxide (In ₂ O ₃) nanowire phase change random access memory. Applied Physics Letters, 2014, 104, 103510.	3.3	4
31	An Ultrasensitive Silicon-Based Electrolyte-Gated Transistor for the Detection of Peanut Allergens. Biosensors, 2022, 12, 24.	4.7	4
32	The Quiet Revolution of Inorganic Nanowires. IEEE Nanotechnology Magazine, 2010, 4, 4-9.	1.3	3
33	Characterization of Gate-All-Around Si-NWFET, including R _{sd} , cylindrical coordinate based 1/f noise and hot carrier effects. , 2010, , .		3
34	Comprehensive Study of Quasi-Ballistic Transport in High- κ /Metal Gate nMOSFETs. IEEE Electron Device Letters, 2011, 32, 1474-1476.	3.9	3
35	Investigation of Low-Frequency Noise in p-type Nanowire FETs: Effect of Switched Biasing Condition and Embedded SiGe Layer. IEEE Electron Device Letters, 2014, 35, 702-704.	3.9	3
36	Role of an encapsulating layer for reducing resistance drift in phase change random access memory. AIP Advances, 2014, 4, .	1.3	3

#	ARTICLE	IF	CITATIONS
37	Impact of P/E Stress on Trap Profiles in Bandgap-Engineered Tunneling Oxide of 3D NAND Flash Memory. IEEE Access, 2022, 10, 62423-62428.	4.2	3
38	pH sensing and noise characteristics of Si nanowire ion-sensitive field effect transistors. , 2011, , .		2
39	The temperature dependence of threshold voltage variations due to oblique single grain boundary in 3D NAND unit cells. , 2014, , .		2
40	The variability due to random discrete dopant and grain boundary in 3D NAND unit cell. , 2014, , .		2
41	Fabrication and Characterization of Nanonet-Channel LTPS TFTs Using a Nanosphere-Assisted Patterning Technique. Micromachines, 2021, 12, 741.	2.9	2
42	Improvement of Fermi-Level Pinning and Contact Resistivity in Ti/Ge Contact Using Carbon Implantation. Micromachines, 2022, 13, 108.	2.9	2
43	Reliable extraction of series resistance in silicon nanowire FETs using Y-function technique. , 2011, , .		1
44	Characterization of low frequency noise in nanowire FETs considering variability and quantum effects. , 2013, , .		1
45	Finite Amplitude Effects on Landau Damping and Diminished Transportation of Trapped Electrons. Journal of the Physical Society of Japan, 2014, 83, 074502.	1.6	1
46	Reliability properties in sub-50nm high performance high-k/metal gate stacks SiGe pMOSFETs. , 2010, , .		0
47	New Investigation of Hot-Carrier Degradation on RF Small-Signal Parameter and Performance in High- k /Metal-Gate nMOSFETs. IEEE Electron Device Letters, 2011, 32, 1668-1670.	3.9	0
48	Low-frequency noise behavior of La-doped HfSiON/metal gate nMOSFETs. , 2011, , .		0
49	Sensing and noise characteristics of si-nanowire ion-sensitive-field-effect-transistors for future biosensor applications. , 2012, , .		0
50	Size-dependent characteristics of highly-scalable In_2Se_3 nanowire phase-change random access memory. , 2013, , .		0
51	Noise consideration for cancer marker detection using nanowire. , 2014, , .		0
52	A threshold voltage variation calibration algorithm for an ISFET-based low-cost pH sensor system. , 2015, , .		0
53	Effects of work-function variation on analog figures-of-merits of inversion-mode and junctionless nanowire transistors. , 2016, , .		0
54	Silicon-Based BioFETs with 3-D Nanostructure: Easy integration, precise control of nanostructure, and a low device-to-device variation. IEEE Nanotechnology Magazine, 2016, 10, 21-29.	1.3	0

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55	Analog Figure-of-Merits Comparison of Gate Workfunction Variability and Random Discrete Dopant Between Inversion-Mode and Junctionless Nanowire FETs. Journal of Nanoscience and Nanotechnology, 2018, 18, 6598-6601.	0.9	0