Jae-Won Jang

List of Publications by Year
in descending order

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		361413	330143
89	1,565	20	37
papers	citations	h-index	g-index

89	89	89	1960
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Highâ€Performance Printed Transistors Realized Using Femtoliter Gravureâ€Printed Subâ€10 Î¼m Metallic Nanoparticle Patterns and Highly Uniform Polymer Dielectric and Semiconductor Layers. Advanced Materials, 2012, 24, 3065-3069.	21.0	168
2	Transparent Highâ€Performance Thin Film Transistors from Solutionâ€Processed SnO₂/ZrO₂ Gelâ€like Precursors. Advanced Materials, 2013, 25, 1042-1047.	21.0	149
3	Resistance Switching Characteristics of Solid Electrolyte Chalcogenide Ag₂Se Nanoparticles for Flexible Nonvolatile Memory Applications. Advanced Materials, 2012, 24, 3573-3576.	21.0	101
4	Fully Inkjetâ€Printed Transparent Oxide Thin Film Transistors Using a Fugitive Wettability Switch. Advanced Electronic Materials, 2015, 1, 1500086.	5.1	99
5	P-type CuO and Cu2O transistors derived from a solâ€“gel copper (II) acetate monohydrate precursor. Thin Solid Films, 2016, 600, 157-161.	1.8	72
6	Analysis of flicker noise in two-dimensional multilayer MoS2 transistors. Applied Physics Letters, 2014, 104, .	3.3	56
7	Megahertz-class printed high mobility organic thin-film transistors and inverters on plastic using attoliter-scale high-speed gravure-printed sub-5 Î¼m gate electrodes. Organic Electronics, 2014, 15, 3639-3647.	2.6	50
8	Gravure-Printed Solâ€“Gels on Flexible Glass: A Scalable Route to Additively Patterned Transparent Conductors. ACS Applied Materials & Interfaces, 2015, 7, 12679-12687.	8.0	44
9	Sol-Gel Processed p-Type CuO Phototransistor for a Near-Infrared Sensor. IEEE Electron Device Letters, 2018, 39, 47-50.	3.9	43
10	Fluoropolymer-based organic memristor with multifunctionality for flexible neural network system. Npj Flexible Electronics, 2021, 5, .	10.7	40
11	Highâ€Detectivity Flexible Nearâ€Infrared Photodetector Based on Chalcogenide Ag₂Se Nanoparticles. Advanced Optical Materials, 2019, 7, 1900812.	7.3	35
12	Transparent and flexible thin-film transistors with channel layers composed of sintered HgTe nanocrystals. Nanotechnology, 2008, 19, 015204.	2.6	33
13	High Performance Ultrathin SnO₂ Thin-Film Transistors by Solâ€“Gel Method. IEEE Electron Device Letters, 2018, 39, 1179-1182.	3.9	32
14	Synthesis and electrical characteristics of Ag2S nanocrystals. Materials Letters, 2008, 62, 1438-1440.	2.6	29
15	Impact of Device Area and Film Thickness on Performance of Sol-Gel Processed ZrO₂RRAM. IEEE Electron Device Letters, 2018, 39, 668-671.	3.9	29
16	Sol-Gel Processed Yttrium-Doped SnO2 Thin Film Transistors. Electronics (Switzerland), 2020, 9, 254.	3.1	29
17	Flexible spin-orbit torque devices. Applied Physics Letters, 2015, 107, .	3.3	26
18	Effect of electrode material on resistive switching memory behavior of solution-processed resistive switches: Realization of robust multi-level cells. Thin Solid Films, 2017, 625, 87-92.	1.8	26

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19	Laser Direct Writing Process for Making Electrodes and High-k Solâ€“Gel ZrO₂ for Boosting Performances of MoS₂ Transistors. ACS Applied Materials & Interfaces, 2016, 8, 9314-9318.	8.0	21
20	Improved Negative Bias Stress Stability of Sol-Gel-Processed Mg-Doped In₂O₃ Thin Film Transistors. IEEE Electron Device Letters, 2018, 39, 1872-1875.	3.9	20
21	Extremely bias stress stable enhancement mode solâ€“gel-processed SnO2 thin-film transistors with Y2O3 passivation layers. Applied Surface Science, 2021, 559, 149971.	6.1	20
22	Solution-Processed Complementary Resistive Switching Arrays for Associative Memory. IEEE Transactions on Electron Devices, 2017, 64, 4310-4316.	3.0	19
23	Versatile use of ZnO interlayer in hybrid solar cells for self-powered near infra-red photo-detecting application. Journal of Alloys and Compounds, 2020, 813, 152202.	5.5	19
24	Improvement in the Performance of Solâ€“Gel Processed In₂O₃Thin-Film Transistor Depending on Sb Dopant Concentration. IEEE Electron Device Letters, 2017, 38, 1027-1030.	3.9	18
25	Effect of Annealing Environment on the Performance of Solâ€“Gel-Processed ZrO2 RRAM. Electronics (Switzerland), 2019, 8, 947.	3.1	18
26	Schottky Nature of Au/SnO₂ Ultrathin Film Diode Fabricated Using Solâ€“Gel Process. IEEE Electron Device Letters, 2018, 39, 1732-1735.	3.9	16
27	Effect of Mg Doping on the Electrical Performance of a Sol-Gel-Processed SnO2 Thin-Film Transistor. Electronics (Switzerland), 2020, 9, 523.	3.1	16
28	N-channel thin-film transistors constructed on plastic by solution processes of HgSe nanocrystals. Microelectronic Engineering, 2009, 86, 2030-2033.	2.4	15
29	Effect of Annealing Ambient on SnO2 Thin Film Transistors Fabricated via An Ethanol-based Sol-gel Route. Electronics (Switzerland), 2019, 8, 955.	3.1	15
30	Comparative Study of Triboelectric Nanogenerators with Differently Woven Cotton Textiles for Wearable Electronics. Polymers, 2019, 11, 1443.	4.5	13
31	Densification Control as a Method of Improving the Ambient Stability of Solâ€“Gel-Processed SnO₂ Thin-Film Transistors. IEEE Electron Device Letters, 2019, 40, 905-908.	3.9	13
32	Numerical Analysis on Effective Mass and Traps Density Dependence of Electrical Characteristics of a-IGZO Thin-Film Transistors. Electronics (Switzerland), 2020, 9, 119.	3.1	13
33	Application of Genetic Algorithm for More Efficient Multi-Layer Thickness Optimization in Solar Cells. Energies, 2020, 13, 1726.	3.1	13
34	The Crucial Role of Quaternary Mixtures of Active Layer in Organic Indoor Solar Cells. Energies, 2019, 12, 1838.	3.1	12
35	Optoelectronic Characteristics of HgSe Nanoparticle Films Spin-Coated on Flexible Plastic Substrates. Japanese Journal of Applied Physics, 2010, 49, 030210.	1.5	10
36	Contact line curvature-induced molecular misorientation of a surface energy patterned organic semiconductor in meniscus-guided coating. Applied Surface Science, 2020, 504, 144362.	6.1	10

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37	Enhancement Mode Flexible SnO₂Thin Film Transistors Via a UV/Ozone-Assisted Sol-Gel Approach. IEEE Access, 2020, 8, 123013-123018.	4.2	10
38	Sol-gel-processed amorphous-phase ZrO₂ based resistive random access memory. Materials Research Express, 2021, 8, 116301.	1.6	10
39	Enhanced switching ratio of solâ€“gel-processed Y₂O₃ RRAM device by suppressing oxygen vacancy formation at high annealing temperatures. Semiconductor Science and Technology, 2022, 37, 015007.	2.0	10
40	Fabrication of AlGaN/GaN MISHEMT with dual-metal gate electrode and its performances. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	9
41	Polycrystalline-Silicon-MOSFET-Based Capacitorless DRAM With Grain Boundaries and Its Performances. IEEE Access, 2021, 9, 50281-50290.	4.2	9
42	Influence of Active Channel Layer Thickness on SnO2 Thin-Film Transistor Performance. Electronics (Switzerland), 2021, 10, 200.	3.1	9
43	Improved negative bias stability of solâ€“gel processed Ti-doped SnO₂ thin-film transistors. Semiconductor Science and Technology, 2020, 35, 115023.	2.0	9
44	Environmentally and Electrically Stable Solâ€“Gel-Deposited SnO₂ Thin-Film Transistors with Controlled Passivation Layer Diffusion Penetration Depth That Minimizes Mobility Degradation. ACS Applied Materials & Interfaces, 2022, 14, 10558-10565.	8.0	9
45	Ultra-Short Pulsed Laser Annealing Effects on MoS2 Transistors with Asymmetric and Symmetric Contacts. Electronics (Switzerland), 2019, 8, 222.	3.1	8
46	Enhanced Switching Reliability of Solâ€“Gel-Processed Y2O3 RRAM Devices Based on Y2O3 Surface Roughness-Induced Local Electric Field. Materials, 2022, 15, 1943.	2.9	8
47	Flexible Sol-Gelâ€”Processed Y2O3 RRAM Devices Obtained via UV/Ozone-Assisted Photochemical Annealing Process. Materials, 2022, 15, 1899.	2.9	8
48	Conformal and Ultra Shallow Junction Formation Achieved Using a Pulsed-Laser Annealing Process Integrated With a Modified Plasma Assisted Doping Method. IEEE Access, 2020, 8, 172166-172174.	4.2	7
49	High performance of solution-processed SnO₂ thin-film transistors by promotion of photo-exposure time-dependent carrier transport during the pre-annealing stage. Semiconductor Science and Technology, 2020, 35, 065019.	2.0	7
50	Viable strategy to minimize trap states of patterned oxide thin films for both exceptional electrical performance and uniformity in solâ€“gel processed transistors. Chemical Engineering Journal, 2022, 441, 135833.	12.7	7
51	Effect of electrode material on characteristics of non-volatile resistive memory consisting of Ag2S nanoparticles. AIP Advances, 2016, 6, 075006.	1.3	6
52	Self-alignment of 6,13-bis(triisopropylsilylethynyl)pentacene molecules through magnetic flux-affected nanoparticle motion in solution-processed transistors. Organic Electronics, 2017, 47, 44-50.	2.6	6
53	Enhanced Performance of Thiophene-Rich Heteroacene, Dibenzothiopheno [6,5-b:6â€™,5â€™-f] Thieno[3,2-b]Thiophene Thin-Film Transistor With MoO_xHole Injection Layers. IEEE Electron Device Letters, 2017, 38, 649-652.	3.9	6
54	Importance of Blade-Coating Temperature for Diketopyrrolopyrrole-based Thin-Film Transistors. Crystals, 2019, 9, 346.	2.2	6

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55	Design and Optimization of Germanium-Based Gate-Metal-Core Vertical Nanowire Tunnel FET. Micromachines, 2019, 10, 749.	2.9	6
56	Improved Negative Bias Stress Stability of Solâ€“Gel-Processed Li-Doped SnO2 Thin-Film Transistors. Electronics (Switzerland), 2021, 10, 1629.	3.1	6
57	Design of Capacitorless DRAM Based on Polycrystalline Silicon Nanotube Structure. IEEE Access, 2021, 9, 163675-163685.	4.2	6
58	Combustion-assisted low-temperature solution process for high-performance SnO2 thin-film transistors. Ceramics International, 2022, 48, 20591-20598.	4.8	6
59	Polycrystalline silicon metal-oxide-semiconductor field-effect transistor-based stacked multi-layer one-transistor dynamic random-access memory with double-gate structure for the embedded systems. Japanese Journal of Applied Physics, 2020, 59, SGGB01.	1.5	5
60	Simulation of capacitorless dynamic random access memory based on junctionless FinFETs using grain boundary of polycrystalline silicon. Applied Physics A: Materials Science and Processing, 2020, 126, 1.	2.3	5
61	Expeditious and eco-friendly solution-free self-patterning of solâ€“gel oxide semiconductor thin films. Materials and Design, 2020, 194, 108949.	7.0	5
62	Improving Ni/GaN Schottky diode performance through interfacial passivation layer formed via ultraviolet/ozone treatment. Current Applied Physics, 2020, 20, 293-297.	2.4	4
63	Polarization-Charge Inversion at Al2O3/GaN Interfaces through Post-Deposition Annealing. Electronics (Switzerland), 2020, 9, 1068.	3.1	4
64	Improving of Sensitivity of PbS Quantum Dot Based SWIR Photodetector Using P3HT. Materials, 2021, 14, 1488.	2.9	4
65	Room-Temperature High-Detectivity Flexible Near-Infrared Photodetectors with Chalcogenide Silver Telluride Nanoparticles. ACS Omega, 2022, 7, 10262-10267.	3.5	4
66	39.1: Invited Paper: Printed Inorganic Transistors Based on Transparent Oxides. Digest of Technical Papers SID International Symposium, 2015, 46, 587-590.	0.3	3
67	Effect of High-Speed Blade Coating on Electrical Characteristics in Polymer Based Transistors. Journal of Nanoscience and Nanotechnology, 2020, 20, 5486-5490.	0.9	3
68	Analysis for DC and RF Characteristics Recessed-Gate GaN MOSFET Using Stacked TiO2/Si3N4 Dual-Layer Insulator. Materials, 2022, 15, 819.	2.9	3
69	A very reliable multilevel YSZ resistive switching memory. , 2012, , .		2
70	Nanocrystal-Based Complementary Inverters Constructed on Flexible Plastic Substrates. Journal of Nanoscience and Nanotechnology, 2013, 13, 3597-3601.	0.9	2
71	Recessed-Gate GaN Metal-Insulator-Semiconductor High-Electron-Mobility Transistor Using a Dual Gate-Insulator Employing TiO2/SiN. Journal of Nanoscience and Nanotechnology, 2020, 20, 4678-4683.	0.9	2
72	Urbachâ€Energyâ€Dictated Spatial Propagation of Electrons in Thermodynamically Tuned Amorphous Zirconia Thin Films. Advanced Materials Interfaces, 2021, 8, 2101104.	3.7	2

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73	Semiâ€Transparent, Micrometer Resolution pâ€NiO/nâ€ZnO Heterojunction Diode Temperature Sensors with Ultrathin Metal Anode. Advanced Materials Technologies, 2022, 7, .	5.8	2
74	High Performance Sol-gel Processed SnO₂ thin film transistor with sol-gel processed ZrO₂ layers. , 2018, , .		1
75	Numerical Design of Carrier Transporting Layer in Top-Gate InGaZnO Thin-Film Transistors for Controlling Potential Energy. Journal of Nanoscience and Nanotechnology, 2021, 21, 3847-3852.	0.9	1
76	Design of a Capacitorless Dynamic Random Access Memory Based on Ultra-Thin Polycrystalline Silicon Junctionless Field-Effect Transistor with Dual-Gate. Journal of Nanoscience and Nanotechnology, 2021, 21, 4223-4229.	0.9	1
77	Design of a Capacitorless Dynamic Random Access Memory Based on Junctionless Dual-Gate Field-Effect Transistor with a Silicon-Germanium/Silicon Nanotube. Journal of Nanoscience and Nanotechnology, 2021, 21, 4235-4242.	0.9	1
78	Theoretical Analysis of Prospects of Organic Photovoltaics as a Multi-Functional Solar Cell and Laser Power Converter for Wireless Power Transfer. Journal of Nanoscience and Nanotechnology, 2020, 20, 4878-4883.	0.9	1
79	UV/ozone-process-assisted low-temperature SnO2 thin-film transistors. , 2018, , .		0
80	Sol-gel processed Mg-doped In₂O₃ thin-film transistors. , 2018, , .		0
81	Alternative approach to optimizing optical spacer layer thickness in solar cell using evolutionary algorithm. , 2019, , .		0
82	Analysis of Logic Inverter Based on Polycrystalline Silicon with Single Grain Boundary. Journal of Nanoscience and Nanotechnology, 2020, 20, 6616-6621.	0.9	0
83	The Effect of Grain Boundary on Electrical Characteristics in the Source and Drain Regions of Polycrystalline Silicon Based in One Transistor Dynamic Random Access Memory. Journal of Nanoscience and Nanotechnology, 2021, 21, 4258-4267.	0.9	0
84	Design and Analysis of DC/DC Boost Converter Using Vertical GaN Power Device. Journal of Nanoscience and Nanotechnology, 2021, 21, 4320-4324.	0.9	0
85	Aging Effects on Electrical Characteristics of Sol-gel Processed CuO Thin Film Transistors. Journal of the Korean Institute of Electrical and Electronic Material Engineers, 2016, 29, 527-531.	0.0	0
86	Optoelectronic Properties of Sol-gel Processed SnO2 Thin Film Transistors. Journal of Sensor Science and Technology, 2020, 29, 328-331.	0.2	0
87	Analysis of CMOS Logic Inverter Based on Gate-All-Around Field-Effect Transistors with the Strained-Silicon Layer for Improving the Switching Performances. Journal of Nanoscience and Nanotechnology, 2020, 20, 6632-6637.	0.9	0
88	Design and Analysis of Metal-Oxide-Semiconductor Field-Effect Transistor-Based Capacitorless One-Transistor Embedded Dynamic Random-Access Memory with Double-Polysilicon Layer Using Grain Boundary for Hole Storage. Journal of Nanoscience and Nanotechnology, 2020, 20, 6596-6602.	0.9	0
89	Analysis and Optimization for Characteristics of Vertical GaN Junctionless MOSFETs Depending on Specifications of GaN Substrates. Journal of Electrical Engineering and Technology, 0, , .	2.0	0