Jinyoung Hwang

List of Publications by Year in descending order

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60 papers	856 citations	516710 16 h-index	501196 28 g-index
62 all docs	62 docs citations	62 times ranked	662 citing authors

#	Article	IF	Citations
1	High stability of amorphous hafnium-indium-zinc-oxide thin film transistor. Applied Physics Letters, 2010, 96, .	3.3	122
2	Amorphous siliconâ€“indiumâ€“zinc oxide semiconductor thin film transistors processed below 150â€‰Â°C. Applied Physics Letters, 2010, 97, .	3.3	86
3	Role of silicon in silicon-indium-zinc-oxide thin-film transistor. Applied Physics Letters, 2010, 97, .	3.3	51
4	Color-selective photodetection from intermediate colloidal quantum dots buried in amorphous-oxide semiconductors. Nature Communications, 2017, 8, 840.	12.8	47
5	Comprehensive Review on Amorphous Oxide Semiconductor Thin Film Transistor. Transactions on Electrical and Electronic Materials, 2020, 21, 235-248.	1.9	43
6	Engineering of band gap states of amorphous SiZnSnO semiconductor as a function of Si doping concentration. Scientific Reports, 2016, 6, 36504.	3.3	40
7	Role of Si as carrier suppressor in amorphous Znâ€“Snâ€“O. Current Applied Physics, 2012, 12, S12-S16.	2.4	36
8	High performance of full swing logic inverter using all n-types amorphous ZnSnO and SiZnSnO thin film transistors. Applied Physics Letters, 2015, 106, .	3.3	36
9	Full swing logic inverter with amorphous SiInZnO and GaInZnO thin film transistors. Applied Physics Letters, 2012, 101, 092103.	3.3	31
10	First-principle study of amorphous SiZnSnO thin-film transistor with excellent stability. Thin Solid Films, 2013, 534, 609-613.	1.8	29
11	Effect of Si on the Energy Band Gap Modulation and Performance of Silicon Indium Zinc Oxide Thin-Film Transistors. Scientific Reports, 2017, 7, 15392.	3.3	29
12	Role of metal capping layer on highly enhanced electrical performance of In-free Siâ€“Znâ€“Snâ€“O thin film transistor. Thin Solid Films, 2015, 594, 293-298.	1.8	28
13	Effect of Trap Density on the Stability of SiInZnO Thin-Film Transistor under Temperature and Bias-Induced Stress. Electrochemical and Solid-State Letters, 2011, 14, H96.	2.2	22
14	Direct investigation on energy bandgap of Si added ZnSnO system for stability enhancement by X-ray photoelectron spectroscopy. Journal of Alloys and Compounds, 2017, 715, 9-15.	5.5	22
15	Mechanism of carrier controllability with metal capping layer on amorphous oxide SiZnSnO semiconductor. Scientific Reports, 2019, 9, 886.	3.3	22
16	Influence of a highly doped buried layer for HfInZnO thin-film transistors. Semiconductor Science and Technology, 2012, 27, 012001.	2.0	19
17	Influence of Channel Layer Thickness on the Instability of Amorphous SiZnSnO Thin Film Transistors Under Negative Bias Temperature Stress. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700698.	1.8	15
18	Investigation on energy bandgap states of amorphous SiZnSnO thin films. Scientific Reports, 2019, 9, 19246.	3.3	15

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19	Variation of optical and electrical properties of amorphous Inâ€“Gaâ€“Znâ€“O/Ag/amorphous Inâ€“Gaâ€“Znâ€“O depending on Ag thickness. Thin Solid Films, 2013, 536, 327-329.	1.8	13
20	Influence of Channel Thickness Variation on Temperature and Bias Induced Stress Instability of Amorphous SiInZnO Thin Film Transistors. Transactions on Electrical and Electronic Materials, 2017, 18, 51-54.	1.9	12
21	Effect of interface states on the instability under temperature stress in amorphous SiInZnO thin film transistor. Applied Physics Letters, 2011, 99, 162101.	3.3	10
22	Investigation on Contact Resistance of Amorphous Indium Gallium Zinc Oxide Thin Film Transistors with Various Electrodes by Transmission Line Method. Transactions on Electrical and Electronic Materials, 2015, 16, 139-141.	1.9	9
23	Simulation and optimization of layer thickness of amorphous oxide SIZO/Ag/SIZO multilayer to enhance transmittance of transparent electrodes without sacrificing sheet resistance. Journal of Alloys and Compounds, 2019, 798, 622-627.	5.5	8
24	Effect of channel thickness on the electrical performance and the stability of amorphous SiZnSnO thin film transistor. Materials Science in Semiconductor Processing, 2020, 117, 105183.	4.0	8
25	Low Emissivity Property of Amorphous Oxide Multilayer (SIZO/Ag/SIZO) Structure. Transactions on Electrical and Electronic Materials, 2017, 18, 13-15.	1.9	8
26	Investigation of addition of silicon on the electrical properties of low temperature solution processed SiInZnO thin film transistor. Journal of Sol-Gel Science and Technology, 2015, 74, 482-487.	2.4	7
27	Metal Capping on Silicon Indium Zinc Oxide Semiconductor for High Performance Thin Film Transistors Processed at 150 Â°C. Journal of Nanoscience and Nanotechnology, 2017, 17, 3397-3400.	0.9	6
28	Dependency of Si Content on the Performance of Amorphous SiZnSnO Thin Film Transistor Based Logic Circuits for Next-Generation Integrated Circuits. Transactions on Electrical and Electronic Materials, 2019, 20, 175-180.	1.9	6
29	Investigation on mechanism for instability under drain current stress in amorphous Siâ€“Inâ€“Znâ€“O thin-film transistors. Thin Solid Films, 2013, 527, 314-317.	1.8	5
30	Investigation on the variation of channel resistance and contact resistance of SiZnSnO semiconductor depending on Si contents using transmission line method. Solid-State Electronics, 2018, 139, 15-20.	1.4	5
31	Optimization of transparent amorphous oxide-metal-amorphous oxide multilayer with high figure of merit for high transmittance and low resistivity. Optical Materials, 2021, 112, 110820.	3.6	5
32	Mechanism of Extraordinary High Mobility in Multilayered Amorphous Oxide Thin Film Transistor. IEEE Transactions on Electron Devices, 2021, 68, 5618-5622.	3.0	5
33	Effect of Nitrogen Doping on the Electrical Performance of Amorphous Siâ€“Inâ€“Znâ€“O Thin Film Inverter. Transactions on Electrical and Electronic Materials, 2019, 20, 12-15.	1.9	4
34	Electrical and Optical Properties of Flexible SiInZnO/Ag/SiInZnO Multilayer Electrodes. Transactions on Electrical and Electronic Materials, 2020, 21, 117-122.	1.9	4
35	Carrier concentration dependency of plasma frequency in SiInZnO/Ag/SiInZnO transparent multilayer. Physica B: Condensed Matter, 2020, 592, 412242.	2.7	4
36	Temperature Dependence of SiInZnO Thin Film Transistor Fabricated by Solution Process. Transactions on Electrical and Electronic Materials, 2015, 16, 46-48.	1.9	4

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37	Thin Film Logic Circuits with Amorphous SiInZnO Channel Layer Annealed at Different Atmospheres for Nextâ€Generation Integrated Circuits. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700732.	1.8	3
38	Optical and Electrical Properties of Highly Transparent Inâ€“Znâ€“O/Ag/Inâ€“Znâ€“O Multilayers Deposited At Room Temperature. Transactions on Electrical and Electronic Materials, 2018, 19, 212-214.	1.9	3
39	Low-Temperature-Processed SiInZnO Thin-Film Transistor Fabricated by Radio Frequency Magnetron Sputtering. Transactions on Electrical and Electronic Materials, 2018, 19, 218-221.	1.9	3
40	Ag Layer Thickness Dependency of Electrical and Optical Properties of SiZnSnO/Ag/SiZnSnO Multilayer for High Performance and In-Free Transparent Conducting Electrode. Transactions on Electrical and Electronic Materials, 2019, 20, 417-419.	1.9	3
41	High Sensitivity of HCl Gas Sensor Based on Pentacene Organic Field-Effect Transistor. Transactions on Electrical and Electronic Materials, 2021, 22, 140-145.	1.9	3
42	Effect of Thermal Annealing on the Electrical Properties of In-Si-O/Ag/In-Si-O Multilayer. Transactions on Electrical and Electronic Materials, 2016, 17, 201-203.	1.9	3
43	Ammonia Gas Sensing Properties of 6,13-Bis(tri-isopropylsilyethynyl) Pentacene Based Field-Effect Transistor. Transactions on Electrical and Electronic Materials, 2022, 23, 182-186.	1.9	3
44	Effect of Carrier Diffusion on Optical Bandgap Design of Metal Oxide/Metal/Metal Oxide Multilayer. Transactions on Electrical and Electronic Materials, 2019, 20, 564-568.	1.9	2
45	High Performance of Cost-Effective Low-E Coating on Flexible PET Substrate with Transparent Amorphous Oxide Semiconductor. Transactions on Electrical and Electronic Materials, 2019, 20, 554-557.	1.9	2
46	Transmission Line Method Analysis on the Electrical Properties of Bi-Layer Channel Oxide Thin Film Transistors with Oxide-Metal-Oxide Electrodes. Transactions on Electrical and Electronic Materials, 2020, 21, 612-616.	1.9	2
47	Influence of Siâ€“Inâ€“Znâ€“O/Ag/Siâ€“Inâ€“Znâ€“O Electrode on Amorphous Siâ€“Znâ€“Snâ€“O Thin Film Transistors. Transactions on Electrical and Electronic Materials, 2021, 22, 103-107.	1.9	2
48	Effect of Annealing Temperature on the Electrical Performance of SiZnSnO Thin Film Transistors Fabricated by Radio Frequency Magnetron Sputtering. Transactions on Electrical and Electronic Materials, 2017, 18, 55-57.	1.9	2
49	Effect of RF Sputtering Power on the Electrical Properties of Siâ€“Inâ€“Znâ€“O Thin Film Transistors. Transactions on Electrical and Electronic Materials, 2019, 20, 518-521.	1.9	1
50	Development of Amorphous SIZO/Ag/Amorphous SIZO Multilayer for High-Performance Transparent Conducting Electrode by Controlling Ag Layer Thickness. Journal of Nanoscience and Nanotechnology, 2019, 19, 1755-1758.	0.9	1
51	Optimized Design of SiInZnO/Ag/SiInZnO Transparent Conductive Electrode by Using Optical Admittance Simulation. Transactions on Electrical and Electronic Materials, 2020, 21, 324-328.	1.9	1
52	Effect of Silicon Doping on the Electrical Performance of Amorphous SiInZnO Thin-film Transistors. Transactions on Electrical and Electronic Materials, 2021, 22, 133-139.	1.9	1
53	Derivation of Dielectric Constant and Debye Length of Amorphous Siâ€“Inâ€“Znâ€“O by Analyzing Optical Coefficients. Transactions on Electrical and Electronic Materials, 2021, 22, 378-381.	1.9	1
54	Layer Thickness Dependency of Oxideâ€“Metalâ€“Oxide Electrode on the Electrical Performance of Oxide Thin Film Transistors. Transactions on Electrical and Electronic Materials, 2021, 22, 593-597.	1.9	1

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55	Realization of Inverter and Logic Circuit Using Amorphous Siâ€“Inâ€“Znâ€“O Thin Film Transistor. Transactions on Electrical and Electronic Materials, 2021, 22, 598-602.	1.9	1
56	Amorphous Siâ€“Znâ€“Snâ€“O Thin Film Transistor with Inâ€“Siâ€“O as Transparent Conducting Electrodes. Transactions on Electrical and Electronic Materials, 2019, 20, 371-374.	1.9	0
57	Effect of Carrier Diffusion on the Optical Property in Siâ€“Inâ€“Znâ€“O/Ag/Siâ€“Inâ€“Znâ€“O Optical Media. Transactions on Electrical and Electronic Materials, 2020, 21, 599-605.	1.9	0
58	Investigation on the Relaxation Time Response of Metal Capped Amorphous Oxide Siâ€“Inâ€“Znâ€“O Thin Film Transistors. Transactions on Electrical and Electronic Materials, 2021, 22, 419-423.	1.9	0
59	Electrical Performance of Amorphous Oxide/Colloidal Quantum Dot/Amorphous Oxide Hybrid Thin Film Transistor. Transactions on Electrical and Electronic Materials, 2022, 23, 25.	1.9	0
60	Investigation of the Stability and the Transparency of Oxide Thin Film Transistor with bi-Layer Channels and Oxide/Metal/Oxide Multilayer Source/Drain Electrodes. Transactions on Electrical and Electronic Materials, 2022, 23, 187-192.	1.9	0