You Seung Rim

List of Publications by Year
in descending order

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96 papers	5,164 citations	159525 30 h-index	88593 70 g-index
96 all docs	96 docs citations	96 times ranked	7144 citing authors

#	Article	IF	Citations
1	Fully transparent InZnSnO/Î²-Ga2O3/InSnO solar-blind photodetectors with high schottky barrier height and low-defect interfaces. Journal of Alloys and Compounds, 2022, 890, 161931.	2.8	16
2	Effect of Annealing in ITO Film Prepared at Various Argon-and-Oxygen-Mixture Ratios via Facing-Target Sputtering for Transparent Electrode of Perovskite Solar Cells. Coatings, 2022, 12, 203.	1.2	1
3	Control of Ni/Î²-Ga2O3 Vertical Schottky Diode Output Parameters at Forward Bias by Insertion of a Graphene Layer. Nanomaterials, 2022, 12, 827.	1.9	3
4	Physical Operations of a Self-Powered IZTO/Î²-Ga2O3 Schottky Barrier Diode Photodetector. Nanomaterials, 2022, 12, 1061.	1.9	4
5	Interfacial molecular engineering for enhanced polarization of negative tribo-materials. Nano Energy, 2022, 96, 107110.	8.2	12
6	Ag₂O/Î²-Ga₂O₃ Heterojunction-Based Self-Powered Solar Blind Photodetector with High Responsivity and Stability. ACS Applied Materials & Interfaces, 2022, 14, 25648-25658.	4.0	18
7	Review on interface engineering of low leakage current and on-resistance for high-efficiency Ga2O3-based power devices. Materials Today Physics, 2022, 27, 100777.	2.9	12
8	Wireless, continuous monitoring of daily stress and management practice via soft bioelectronics. Biosensors and Bioelectronics, 2021, 173, 112764.	5.3	19
9	Recent progress in the development of backplane thin film transistors for information displays. Journal of Information Display, 2021, 22, 1-11.	2.1	60
10	Modeling a Ni/Î²-Ga₂O₃ Schottky barrier diode deposited by confined magnetic-field-based sputtering. Journal Physics D: Applied Physics, 2021, 54, 115102.	1.3	27
11	Modeling and analyzing temperature-dependent parameters of Ni/Î²-Ga₂O₃ Schottky barrier diode deposited by confined magnetic field-based sputtering. Semiconductor Science and Technology, 2021, 36, 035020.	1.0	18
12	Indoor and Outdoor Performance Study of Metallic Zinc Particles in Black Paint to Improve Solar Absorption for Solar Still Application. Coatings, 2021, 11, 536.	1.2	8
13	Reduction of Persistent Photoconduction with IGZO/ZnON-Tandem-Structure Visibleâ€“Near-Infrared Phototransistors. ACS Applied Materials & Interfaces, 2021, 13, 17827-17834.	4.0	7
14	Low Temperature Modeling of Ni/Î²-Ga₂O₃ Schottky Barrier Diode Interface. ACS Applied Electronic Materials, 2021, 3, 3667-3673.	2.0	18
15	Biocompatible and Biodegradable Neuromorphic Device Based on Hyaluronic Acid for Implantable Bioelectronics. Advanced Functional Materials, 2021, 31, 2107074.	7.8	23
16	Study on the improvement of the open-circuit voltage of NiOx/Si heterojunction solar cell. Optical Materials, 2021, 120, 111453.	1.7	12
17	Evaluation of Metal Oxide Thin-Film Electrolyte-Gated Field Effect Transistors for Glucose Monitoring in Small Volume of Body Analytes. IEEE Sensors Journal, 2020, , 1-1.	2.4	10
18	Fully Integrated, Stretchable, Wireless Skinâ€Conformal Bioelectronics for Continuous Stress Monitoring in Daily Life. Advanced Science, 2020, 7, 2000810.	5.6	79

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19	Hybrid Integrated Photomedical Devices for Wearable Vital Sign Tracking. ACS Sensors, 2020, 5, 1582-1588.	4.0	14
20	Electrical Defect State Distribution in Single Crystal ZnO Schottky Barrier Diodes. Coatings, 2020, 10, 206.	1.2	10
21	Synergistic Design of Anataseâ€“Rutile TiO2 Nanostructured Heterophase Junctions toward Efficient Photoelectrochemical Water Oxidation. Coatings, 2020, 10, 557.	1.2	12
22	Versatile surface for solidâ€“solid/liquidâ€“solid triboelectric nanogenerator based on fluorocarbon liquid infused surfaces. Science and Technology of Advanced Materials, 2020, 21, 139-146.	2.8	34
23	Review of metal oxide semiconductors-based thin-film transistors for point-of-care sensor applications. Journal of Information Display, 2020, 21, 203-210.	2.1	38
24	Leakage Current Modelling and Optimization of Î²-Ga ₂ O ₃ Schottky Barrier Diode with Ni Contact under High Reverse Voltage. ECS Journal of Solid State Science and Technology, 2020, 9, 125001.	0.9	17
25	Effective surface diffusion of nickel on single crystal Î²-Ga₂O₃for Schottky barrier modulation and high thermal stability. Journal of Materials Chemistry C, 2019, 7, 10953-10960.	2.7	26
26	Numerical Simulation on Thickness Dependency and Bias Stress Test of Ultrathin IGZO Thinâ€Film Transistors Via a Solution Process. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800987.	0.8	7
27	Significant Performance Improvement of Solution-Processed Metal Oxide Transistors by Ligand Dissociation through Coupled Temperatureâ€“Time Treatment of Aqueous Precursors. ACS Applied Electronic Materials, 2019, 1, 505-512.	2.0	24
28	Suppression Effects of Oxygen Deficient on Ultrathin Indium Oxide Electrochemical Transistors-Based Biosensors. ECS Meeting Abstracts, 2019, , .	0.0	0
29	Defect-induced instability mechanisms of sputtered amorphous indium tin zinc oxide thin-film transistors. Journal of Applied Physics, 2018, 123, .	1.1	19
30	Photothermally Activated Nanocrystalline Oxynitride with Superior Performance in Flexible Field-Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 2709-2715.	4.0	13
31	Aptamerâ€“field-effect transistors overcome Debye length limitations for small-molecule sensing. Science, 2018, 362, 319-324.	6.0	570
32	Large-Area, Ultrathin Metal-Oxide Semiconductor Nanoribbon Arrays Fabricated by Chemical Lift-Off Lithography. Nano Letters, 2018, 18, 5590-5595.	4.5	27
33	Near-Infrared Photoresponsivity of ZnON Thin-Film Transistor with Energy Band-Tunable Semiconductor. ACS Applied Materials & Interfaces, 2018, 10, 30541-30547.	4.0	16
34	Interface Engineering of Metal Oxide Semiconductors for Biosensing Applications. Advanced Materials Interfaces, 2017, 4, 1700020.	1.9	72
35	Quasi-Two-Dimensional Metal Oxide Semiconductors Based Ultrasensitive Potentiometric Biosensors. ACS Nano, 2017, 11, 4710-4718.	7.3	79
36	Enhanced electrical stability of nitrate ligand-based hexaaqua complexes solution-processed ultrathin a-IGZO transistors. Journal Physics D: Applied Physics, 2017, 50, 485107.	1.3	6

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37	Silicon Cations Intermixed Indium Zinc Oxide Interface for High-Performance Thin-Film Transistors Using a Solution Process. ACS Applied Materials & Interfaces, 2017, 9, 29849-29856.	4.0	14
38	Modulation of the electrical properties in amorphous indium-gallium zinc-oxide semiconductor films using hydrogen incorporation. Applied Physics Letters, 2017, 111, .	1.5	19
39	A combination of selected mapping and clipping to increase energy efficiency of OFDM systems. PLoS ONE, 2017, 12, e0185965.	1.1	9
40	Film Density Controlled-InGaZnO Multi-Stacked Channel Based Thin-Film Transistors Using a Solution Process. Science of Advanced Materials, 2017, 9, 1578-1582.	0.1	3
41	ITO/Ag Multilayer Films Fabricated by Low-Damaging Facing-Target Sputtering. Science of Advanced Materials, 2017, 9, 1551-1554.	0.1	0
42	P-6: Aqueous Precursor Based Solution-Processed Metal Oxide Semiconductor. Digest of Technical Papers SID International Symposium, 2016, 47, 1140-1142.	0.1	1
43	Recent Progress in Materials and Devices toward Printable and Flexible Sensors. Advanced Materials, 2016, 28, 4415-4440.	11.1	643
44	Boosting Responsivity of Organicâ€“Metal Oxynitride Hybrid Heterointerface Phototransistor. ACS Applied Materials & Interfaces, 2016, 8, 14665-14670.	4.0	25
45	Deep-level defect distribution as a function of oxygen partial pressure in sputtered ZnO thin-film transistors. Current Applied Physics, 2016, 16, 1369-1373.	1.1	6
46	Single Crystal Formamidinium Lead Iodide (FAPbI₃): Insight into the Structural, Optical, and Electrical Properties. Advanced Materials, 2016, 28, 2253-2258.	11.1	781
47	Modified Stoichiometry in Homogeneous Indiumâ€“Zinc Oxide System as Vertically Graded Oxygen Deficiencies by Controlling Redox Reactions. Advanced Materials Interfaces, 2016, 3, 1500606.	1.9	7
48	Effects of structural modification via high-pressure annealing on solution-processed InGaO films and thin-film transistors. Journal Physics D: Applied Physics, 2016, 49, 075112.	1.3	15
49	Improvement of electrical characteristics of solution-processed InZnO thin-film transistor by vacuum annealing and nitrogen pressure treatment at 200 Â°C. Japanese Journal of Applied Physics, 2015, 54, 126502.	0.8	7
50	Low-Impurity High-Performance Solution-Processed Metal Oxide Semiconductors via a Facile Redox Reaction. Chemistry of Materials, 2015, 27, 4713-4718.	3.2	34
51	Fabrication of High-Performance Ultrathin In₂O₃ Film Field-Effect Transistors and Biosensors Using Chemical Lift-Off Lithography. ACS Nano, 2015, 9, 4572-4582.	7.3	156
52	Printable Ultrathin Metal Oxide Semiconductor-Based Conformal Biosensors. ACS Nano, 2015, 9, 12174-12181.	7.3	126
53	Highly Robust Silver Nanowire Network for Transparent Electrode. ACS Applied Materials & Interfaces, 2015, 7, 24601-24607.	4.0	113
54	Ultrahigh and Broad Spectral Photodetectivity of an Organicâ€“Inorganic Hybrid Phototransistor for Flexible Electronics. Advanced Materials, 2015, 27, 6885-6891.	11.1	137

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55	Hexaaqua Metal Complexes for Low-Temperature Formation of Fully Metal Oxide Thin-Film Transistors. Chemistry of Materials, 2015, 27, 5808-5812.	3.2	77
56	Origin of electrical improvement of amorphous TaInZnO TFT by oxygen thermo-pressure-induced process. Journal Physics D: Applied Physics, 2014, 47, 105104.	1.3	12
57	The Influence of Oxygen High-Pressure Annealing on the Performance and Bias Instability of Amorphous Geâ€“Inâ€“Gaâ€“O Thin-Film Transistors. IEEE Transactions on Electron Devices, 2014, 61, 4132-4136.	1.6	6
58	Densification effects on solution-processed indium-gallium-zinc-oxide films and their thin-film transistors. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2195-2198.	0.8	5
59	The effect of a zincâ€“tin-oxide layer used as an etch-stopper layer on the bias stress stability of solution-processed indiumâ€“galliumâ€“zinc-oxide thin-film transistors. Journal Physics D: Applied Physics, 2014, 47, 385104.	1.3	16
60	Manifestation of reversal conductivity on high pressurizing of solution-processed ZnSnO thin-film transistors at low temperature. Journal Physics D: Applied Physics, 2014, 47, 045502.	1.3	12
61	Boost Up Mobility of Solutionâ€Processed Metal Oxide Thinâ€Film Transistors via Confining Structure on Electron Pathways. Advanced Materials, 2014, 26, 4273-4278.	11.1	175
62	Direct Light Pattern Integration of Low-Temperature Solution-Processed All-Oxide Flexible Electronics. ACS Nano, 2014, 8, 9680-9686.	7.3	128
63	Homojunction Solution-Processed Metal Oxide Thin-Film Transistors Using Passivation-Induced Channel Definition. ACS Applied Materials & Interfaces, 2014, 6, 4819-4822.	4.0	11
64	Interface Control in Organic Electronics Using Mixed Monolayers of Carboranethiol Isomers. Nano Letters, 2014, 14, 2946-2951.	4.5	90
65	Improvement in Negative Bias Stress Stability of Solution-Processed Amorphous Inâ€“Gaâ€“Znâ€“O Thin-Film Transistors Using Hydrogen Peroxide. ACS Applied Materials & Interfaces, 2014, 6, 3371-3377.	4.0	71
66	Photoresist-Free Fully Self-Patterned Transparent Amorphous Oxide Thin-Film Transistors Obtained by Sol-Gel Process. Scientific Reports, 2014, 4, 4544.	1.6	31
67	Combined effect of the large ionic radius and low electronegativity of lanthanum additive on solution-processed zincâ€“tinâ€“oxide thin-film transistors. Thin Solid Films, 2013, 536, 291-294.	0.8	12
68	Defect reduction in photon-accelerated negative bias instability of InGaZnO thin-film transistors by high-pressure water vapor annealing. Applied Physics Letters, 2013, 102, .	1.5	44
69	Low-Temperature Metal-Oxide Thin-Film Transistors Formed by Directly Photopatternable and Combustible Solution Synthesis. ACS Applied Materials & Interfaces, 2013, 5, 3565-3571.	4.0	98
70	Chemical Stability and Electrical Performance of Dual-Active-Layered Zincâ€“Tinâ€“Oxide/Indiumâ€“Galliumâ€“Zincâ€“Oxide Thin-Film Transistors Using a Solution Process. ACS Applied Materials & Interfaces, 2013, 5, 6108-6112.	4.0	60
71	Enhanced Electrical Properties of Thin-Film Transistor with Self-Passivated Multistacked Active Layers. ACS Applied Materials & Interfaces, 2013, 5, 4190-4194.	4.0	36
72	Carrier-Suppressing Effect of Mg in Solution-Processed Zn-Sn-O Thin-Film Transistors. Electrochemical and Solid-State Letters, 2012, 15, H78.	2.2	16

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73	P-17: Performance Enhancement of Solution-Processed Zn-Sn-O TFTs Using High-Pressure Annealing. Digest of Technical Papers SID International Symposium, 2012, 43, 1104-1107.	0.1	1
74	Improved Electrical Performance of an Oxide Thin-Film Transistor Having Multistacked Active Layers Using a Solution Process. ACS Applied Materials & Interfaces, 2012, 4, 4001-4005.	4.0	81
75	Simultaneous modification of pyrolysis and densification for low-temperature solution-processed flexible oxide thin-film transistors. Journal of Materials Chemistry, 2012, 22, 12491.	6.7	158
76	The Effects of Dual-Active-Layer Modulation on a Low-Temperature Solution-Processed Oxide Thin-Film Transistor. IEEE Transactions on Electron Devices, 2012, 59, 2149-2152.	1.6	29
77	Solutionâ€processed oxide thinâ€film transistors using aluminum and nitrate precursors for lowâ€temperature annealing. Journal of the Society for Information Display, 2011, 19, 620-622.	0.8	3
78	Pâ€14: High Performance Solutionâ€Processed IGZO TFTs Formed by Using a Highâ€Pressure Annealing Method. Digest of Technical Papers SID International Symposium, 2011, 42, 1148-1150.	0.1	2
79	Influence of thermal parameter on solution-processed Zr-doped ZTO thin-film transistors. Current Applied Physics, 2011, 11, S258-S261.	1.1	15
80	Effects of highâ€pressure H₂Oâ€annealing on amorphous IGZO thinâ€film transistors. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 2231-2234.	0.8	21
81	The formation of InZnO lattices incorporating Ba for thin-film transistors using a solution process. Journal of Crystal Growth, 2011, 326, 163-165.	0.7	22
82	Investigation of solution-processed amorphous SrInZnO thin film transistors. Journal of Crystal Growth, 2011, 326, 171-174.	0.7	20
83	Low-Temperature Solution Processing of AlInZnO/InZnO Dual-Channel Thin-Film Transistors. IEEE Electron Device Letters, 2011, 32, 1242-1244.	2.2	64
84	Low-Temperature Solution-Processed ZrO2 Gate Insulators for Thin-Film Transistors Using High-Pressure Annealing. Electrochemical and Solid-State Letters, 2011, 14, E35.	2.2	44
85	Annealing temperature dependence on the positive bias stability of IGZO thin-film transistors. Journal of Information Display, 2011, 12, 209-212.	2.1	16
86	Improved Bias Stability of Solution-Processed ZnSnO Thin-Film Transistors by Zr Addition. Electrochemical and Solid-State Letters, 2011, 15, H37-H40.	2.2	21
87	Characteristics of indium zinc oxide films deposited using the facing targets sputtering method for OLEDs applications. Thin Solid Films, 2010, 518, 6223-6227.	0.8	7
88	Effect of Zr addition on ZnSnO thin-film transistors using a solution process. Applied Physics Letters, 2010, 97, .	1.5	168
89	The effect of La in InZnO systems for solution-processed amorphous oxide thin-film transistors. Applied Physics Letters, 2010, 97, .	1.5	59
90	Preparation of Indium Zinc Oxide Thin Films Deposited on Various Substrates. Molecular Crystals and Liquid Crystals, 2009, 514, 99/[429]-108/[438].	0.4	2

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91	Study on the electrical and optical properties of ITO and AZO thin film by oxygen gas flow rate. Journal of Electroceramics, 2009, 23, 341-345.	0.8	24
92	Properties of Indium-Zinc-Oxide Thin Films Prepared by Facing Targets Sputtering at Room Temperature. Journal of the Korean Physical Society, 2009, 54, 1267-1272.	0.3	14
93	Influence of a Ag Layer on AZO/Ag/AZO Multilayer Thin Films Prepared by Facing Targets Sputtering. Journal of the Korean Physical Society, 2009, 54, 1302-1308.	0.3	13
94	Properties of IZTO Thin Films Prepared by Using a Hetero-Target Sputtering System. Journal of the Korean Physical Society, 2009, 54, 1309-1314.	0.3	11
95	Preparation of Al-doped ZnO thin film deposited at room temperature. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2008, 313-314, 461-464.	2.3	22
96	Effects of Substrate Heating and Film Thickness on Properties of Silver-Based ZnO Multilayer Thin Films. Japanese Journal of Applied Physics, 2008, 47, 5022-5027.	0.8	20