Sunghwan Lee

List of Publications by Citations

46 papers	1,111 citations	17 h-index	33 g-index
64 ext. papers	1,282 ext. citations	7 avg, IF	4.39 L-index

#	Paper	IF	Citations
46	Amorphous IZO-based transparent thin film transistors. *Thin Solid Films*, **2008**, 516, 5894-5898	2.2	186
45	25th anniversary article: CVD polymers: a new paradigm for surface modification and device fabrication. *Advanced Materials*, **2013**, 25, 5392-423	24	185
44	High electrical conductivity and carrier mobility in oCVD PEDOT thin films by engineered crystallization and acid treatment. *Science Advances*, **2018**, 4, eaat5780	14.3	113
43	A facile solution-phase approach to transparent and conducting ITO nanocrystal assemblies. *Journal of the American Chemical Society*, **2012**, 134, 13410-4	16.4	105
42	A study of the specific contact resistance and channel resistivity of amorphous IZO thin film transistors with IZO source□rain metallization. *Journal of Applied Physics*, **2011**, 109, 063702	2.5	60
41	Enhanced Optical Property with Tunable Band Gap of Cross-linked PEDOT Copolymers via Oxidative Chemical Vapor Deposition. *Advanced Functional Materials*, **2015**, 25, 85-93	15.6	45
40	Identification of the native defect doping mechanism in amorphous indium zinc oxide thin films studied using ultra high pressure oxidation. *Applied Physics Letters*, **2013**, 102, 052101	3.4	40
39	Optoelectronic properties of polythiophene thin films and organic TFTs fabricated by oxidative chemical vapor deposition. *Journal of Materials Chemistry C*, **2014**, 2, 7223	7.1	32
38	Heavily Doped poly(3,4-ethylenedioxythiophene) Thin Films with High Carrier Mobility Deposited Using Oxidative CVD: Conductivity Stability and Carrier Transport. *Advanced Functional Materials*, **2014**, 24, n/a-n/a	15.6	29
37	Amorphous structure and electrical performance of low-temperature annealed amorphous indium zinc oxide transparent thin film transistors. *Thin Solid Films*, **2012**, 520, 3764-3768	2.2	28
36	The effect of growth temperature on physical properties of heavily doped ZnO:Al films. *Physica Status Solidi (A) Applications and Materials Science*, **2009**, 206, 697-703	1.6	26
35	Work function investigations of Al-doped ZnO for band-alignment in electronic and optoelectronic applications. *Applied Surface Science*, **2019**, 484, 990-998	6.7	23
34	Low Substrate Temperature Encapsulation for Flexible Electrodes and Organic Photovoltaics. *Advanced Energy Materials*, **2015**, 5, 1401442	21.8	21
33	The effect of metallization contact resistance on the measurement of the field effect mobility of long-channel unannealed amorphous In□nO thin film transistors. *Thin Solid Films*, **2012**, 520, 3769-3773	2.2	21
32	On the effect of Ti on the stability of amorphous indium zinc oxide used in thin film transistor applications. *Applied Physics Letters*, **2011**, 98, 262108	3.4	20
31	Obtaining a Low and Wide Atomic Layer Deposition Window (150-275 □C) for In O Films Using an In Amidinate and H O. *Chemistry - A European Journal*, **2018**, 24, 9525-9529	4.8	18
30	Structural and electrical properties of transparent conducting Al2O3-doped ZnO thin films using off-axis DC magnetron sputtering. *Materials Letters*, **2012**, 85, 88-90	3.3	18

29	Metallization strategies for In2O3-based amorphous oxide semiconductor materials. *Journal of Materials Research*, **2012**, 27, 2299-2308	2.5	17
28	Channel scaling and field-effect mobility extraction in amorphous InZnO thin film transistors. *Solid-State Electronics*, **2017**, 135, 94-99	1.7	13
27	Effects of membrane thickness on the performance of ionic polymer-metal composite actuators.. *RSC Advances*, **2019**, 9, 14621-14626	3.7	11
26	Air-stable polythiophene-based thin film transistors processed using oxidative chemical vapor deposition: Carrier transport and channel/metallization contact interface. *Organic Electronics*, **2016**, 33, 253-262	3.5	11
25	Factors controlling conductivity of PEDOT deposited using oxidative chemical vapor deposition. *Applied Surface Science*, **2020**, 501, 144105	6.7	11
24	Membrane crystallinity and fuel crossover in direct ethanol fuel cells with Nafion composite membranes containing phosphotungstic acid. *Journal of Materials Science*, **2017**, 52, 2400-2412	4.3	10
23	Metallization selection and the performance of amorphous In-Zn-O thin film transistors. *Applied Physics Letters*, **2014**, 104, 252103	3.4	9
22	The role of third cation doping on phase stability, carrier transport and carrier suppression in amorphous oxide semiconductors. *Journal of Materials Chemistry C*, **2020**, 8, 13798-13810	7.1	9
21	Nanostructured Unsubstituted Polythiophene Films Deposited Using Oxidative Chemical Vapor Deposition: Hopping Conduction and Thermal Stability. *Advanced Materials Interfaces*, **2018**, 5, 1701513	4.6	8
20	Binder-free printed PEDOT wearable sensors on everyday fabrics using oxidative chemical vapor deposition. *Science Advances*, **2021**, 7, eabj8958	14.3	8
19	High temperature in-situ phase stability of sputtered TiAlxN coatings. *Journal of Alloys and Compounds*, **2019**, 786, 507-514	5.7	5
18	Ultrahigh active material content and highly stable Ni-rich cathode leveraged by oxidative chemical vapor deposition. *Energy Storage Materials*, **2022**, 48, 1-11	19.4	4
17	Effect of O2 Fraction in the Sputter Gas on the Electrical Properties of Amorphous In-Zn-O and the Thin Film Transistor Performance. *Journal of Electronic Materials*, **2016**, 45, 6310-6316	1.9	3
16	Midwavelength Infrared p-n Heterojunction Diodes Based on Intraband Colloidal Quantum Dots. *ACS Applied Materials & Interfaces*, **2021**, 13, 49043-49049	9.5	3
15	Carrier Density-Tunable Work Function Buffer at the Channel/Metallization Interface for Amorphous Oxide Thin-Film Transistors. *ACS Applied Electronic Materials*, **2021**, 3, 2703-2711	4	3
14	Thin Film Oxy-Apatite Anodes for Solid Oxide Fuel Cells. *Journal of the Electrochemical Society*, **2016**, 163, F719-F727	3.9	2
13	Layer-resolved release of epitaxial layers in III-V heterostructure via a buffer-free mechanical separation technique.. *Science Advances*, **2022**, 8, eabl6406	14.3	2
12	Enhancement of thermal and mechanical stabilities of silicon doped titanium nitride coating by manipulation of sputtering conditions. *Journal of Materials Research and Technology*, **2022**, 17, 1122-1131	5.5	2

11	Cerium silicate-based thin-film apatites: high conductivity and solid oxide fuel cell application. *MRS Communications*, **2017**, 7, 199-205	2.7	1
10	Organic Photovoltaic Devices: Low Substrate Temperature Encapsulation for Flexible Electrodes and Organic Photovoltaics (Adv. Energy Mater. 6/2015). *Advanced Energy Materials*, **2015**, 5,	21.8	1
9	Mobility of Air-Stable p-type Polythiophene Field-Effect Transistors Fabricated Using Oxidative Chemical Vapor Deposition. *Journal of Electronic Materials*, **2020**, 49, 3465-3471	1.9	1
8	High-Performance Oxide-Based p-n Heterojunctions Integrating p-SnO and n-InGaZnO. *ACS Applied Materials & Interfaces*, **2021**, 13, 55676-55686	9.5	1
7	Origin of an unintended increase in carrier density of ternary cation-based amorphous oxide semiconductors. *Applied Surface Science*, **2021**, 556, 149676	6.7	1
6	High temperature (up to 1200℃) thermal-mechanical stability of Si and Ni doped CrN framework coatings. *Journal of Materials Research and Technology*, **2021**, 14, 2406-2419	5.5	1
5	Effects of Thermally Induced Phase Transition on the Negative Thermo-Optic Properties of Atomic-Layer-Deposited TiO2 Films. *ACS Applied Electronic Materials*, **2022**, 4, 651-662	4	1
4	Hybrid Silicon-Polymer Photodetector Engineered Using Oxidative Chemical Vapor Deposition for High-Performance and Bias-Switchable Multi-Functionality. *Advanced Functional Materials*,2201641	15.6	1
3	The Effect of Bias Stress on the Performance of Amorphous InAlZnO-Based Thin Film Transistors. *Journal of Electronic Materials*, **2022**, 51, 1813	1.9	0
2	Pseudo wastewater treatment by combining adsorption and phytoaccumulation on the Linn. plant/activated carbon system. *International Journal of Phytoremediation*, **2021**, 23, 300-306	3.9	0
1	Oxidative Chemical Vapor Deposition: Nanostructured Unsubstituted Polythiophene Films Deposited Using Oxidative Chemical Vapor Deposition: Hopping Conduction and Thermal Stability (Adv. Mater. Interfaces 9/2018). *Advanced Materials Interfaces*, **2018**, 5, 1870041	4.6	