

# Sunghwan Lee

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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	Layer-resolved release of epitaxial layers in III-V heterostructure via a buffer-free mechanical separation technique.. <i>Science Advances</i> , <b>2022</b> , 8, eabl6406	14.3	2
45	Enhancement of thermal and mechanical stabilities of silicon doped titanium nitride coating by manipulation of sputtering conditions. <i>Journal of Materials Research and Technology</i> , <b>2022</b> , 17, 1122-1131	5.5	2
44	The Effect of Bias Stress on the Performance of Amorphous InAlZnO-Based Thin Film Transistors. <i>Journal of Electronic Materials</i> , <b>2022</b> , 51, 1813	1.9	0
43	Ultrahigh active material content and highly stable Ni-rich cathode leveraged by oxidative chemical vapor deposition. <i>Energy Storage Materials</i> , <b>2022</b> , 48, 1-11	19.4	4
42	Effects of Thermally Induced Phase Transition on the Negative Thermo-Optic Properties of Atomic-Layer-Deposited TiO <sub>2</sub> Films. <i>ACS Applied Electronic Materials</i> , <b>2022</b> , 4, 651-662	4	1
41	High-Performance Oxide-Based p-n Heterojunctions Integrating p-SnO and n-InGaZnO. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 55676-55686	9.5	1
40	Binder-free printed PEDOT wearable sensors on everyday fabrics using oxidative chemical vapor deposition. <i>Science Advances</i> , <b>2021</b> , 7, eabj8958	14.3	8
39	Midwavelength Infrared p-n Heterojunction Diodes Based on Intraband Colloidal Quantum Dots. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 49043-49049	9.5	3
38	Carrier Density-Tunable Work Function Buffer at the Channel/Metallization Interface for Amorphous Oxide Thin-Film Transistors. <i>ACS Applied Electronic Materials</i> , <b>2021</b> , 3, 2703-2711	4	3
37	Pseudo wastewater treatment by combining adsorption and phytoaccumulation on the Linn. plant/activated carbon system. <i>International Journal of Phytoremediation</i> , <b>2021</b> , 23, 300-306	3.9	0
36	Origin of an unintended increase in carrier density of ternary cation-based amorphous oxide semiconductors. <i>Applied Surface Science</i> , <b>2021</b> , 556, 149676	6.7	1
35	High temperature (up to 1200°C) thermal-mechanical stability of Si and Ni doped CrN framework coatings. <i>Journal of Materials Research and Technology</i> , <b>2021</b> , 14, 2406-2419	5.5	1
34	Mobility of Air-Stable p-type Polythiophene Field-Effect Transistors Fabricated Using Oxidative Chemical Vapor Deposition. <i>Journal of Electronic Materials</i> , <b>2020</b> , 49, 3465-3471	1.9	1
33	The role of third cation doping on phase stability, carrier transport and carrier suppression in amorphous oxide semiconductors. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 13798-13810	7.1	9
32	Factors controlling conductivity of PEDOT deposited using oxidative chemical vapor deposition. <i>Applied Surface Science</i> , <b>2020</b> , 501, 144105	6.7	11
31	High temperature in-situ phase stability of sputtered TiAlxN coatings. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 786, 507-514	5.7	5
30	Effects of membrane thickness on the performance of ionic polymer-metal composite actuators.. <i>RSC Advances</i> , <b>2019</b> , 9, 14621-14626	3.7	11

29	Work function investigations of Al-doped ZnO for band-alignment in electronic and optoelectronic applications. <i>Applied Surface Science</i> , <b>2019</b> , 484, 990-998	6.7	23
28	Nanostructured Unsubstituted Polythiophene Films Deposited Using Oxidative Chemical Vapor Deposition: Hopping Conduction and Thermal Stability. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1701513	4.6	8
27	Oxidative Chemical Vapor Deposition: Nanostructured Unsubstituted Polythiophene Films Deposited Using Oxidative Chemical Vapor Deposition: Hopping Conduction and Thermal Stability (Adv. Mater. Interfaces 9/2018). <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1870041	4.6	
26	Obtaining a Low and Wide Atomic Layer Deposition Window (150-275 °C) for In <sub>2</sub> O <sub>3</sub> Films Using an In Amidinate and H <sub>2</sub> O. <i>Chemistry - A European Journal</i> , <b>2018</b> , 24, 9525-9529	4.8	18
25	High electrical conductivity and carrier mobility in oCVD PEDOT thin films by engineered crystallization and acid treatment. <i>Science Advances</i> , <b>2018</b> , 4, eaat5780	14.3	113
24	Cerium silicate-based thin-film apatites: high conductivity and solid oxide fuel cell application. <i>MRS Communications</i> , <b>2017</b> , 7, 199-205	2.7	1
23	Membrane crystallinity and fuel crossover in direct ethanol fuel cells with Nafion composite membranes containing phosphotungstic acid. <i>Journal of Materials Science</i> , <b>2017</b> , 52, 2400-2412	4.3	10
22	Channel scaling and field-effect mobility extraction in amorphous InZnO thin film transistors. <i>Solid-State Electronics</i> , <b>2017</b> , 135, 94-99	1.7	13
21	Effect of O <sub>2</sub> Fraction in the Sputter Gas on the Electrical Properties of Amorphous In-Zn-O and the Thin Film Transistor Performance. <i>Journal of Electronic Materials</i> , <b>2016</b> , 45, 6310-6316	1.9	3
20	Thin Film Oxy-Apatite Anodes for Solid Oxide Fuel Cells. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, F719-F727	3.9	2
19	Air-stable polythiophene-based thin film transistors processed using oxidative chemical vapor deposition: Carrier transport and channel/metallization contact interface. <i>Organic Electronics</i> , <b>2016</b> , 33, 253-262	3.5	11
18	Organic Photovoltaic Devices: Low Substrate Temperature Encapsulation for Flexible Electrodes and Organic Photovoltaics (Adv. Energy Mater. 6/2015). <i>Advanced Energy Materials</i> , <b>2015</b> , 5,	21.8	1
17	Low Substrate Temperature Encapsulation for Flexible Electrodes and Organic Photovoltaics. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1401442	21.8	21
16	Enhanced Optical Property with Tunable Band Gap of Cross-linked PEDOT Copolymers via Oxidative Chemical Vapor Deposition. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 85-93	15.6	45
15	Optoelectronic properties of polythiophene thin films and organic TFTs fabricated by oxidative chemical vapor deposition. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 7223	7.1	32
14	Heavily Doped poly(3,4-ethylenedioxythiophene) Thin Films with High Carrier Mobility Deposited Using Oxidative CVD: Conductivity Stability and Carrier Transport. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, n/a-n/a	15.6	29
13	Metallization selection and the performance of amorphous In-Zn-O thin film transistors. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 252103	3.4	9
12	Identification of the native defect doping mechanism in amorphous indium zinc oxide thin films studied using ultra high pressure oxidation. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 052101	3.4	40

11	25th anniversary article: CVD polymers: a new paradigm for surface modification and device fabrication. <i>Advanced Materials</i> , <b>2013</b> , 25, 5392-423	24	185
10	The effect of metallization contact resistance on the measurement of the field effect mobility of long-channel unannealed amorphous In <sub>2</sub> O <sub>3</sub> thin film transistors. <i>Thin Solid Films</i> , <b>2012</b> , 520, 3769-3773	2.2	21
9	Amorphous structure and electrical performance of low-temperature annealed amorphous indium zinc oxide transparent thin film transistors. <i>Thin Solid Films</i> , <b>2012</b> , 520, 3764-3768	2.2	28
8	Metallization strategies for In <sub>2</sub> O <sub>3</sub> -based amorphous oxide semiconductor materials. <i>Journal of Materials Research</i> , <b>2012</b> , 27, 2299-2308	2.5	17
7	Structural and electrical properties of transparent conducting Al <sub>2</sub> O <sub>3</sub> -doped ZnO thin films using off-axis DC magnetron sputtering. <i>Materials Letters</i> , <b>2012</b> , 85, 88-90	3.3	18
6	A facile solution-phase approach to transparent and conducting ITO nanocrystal assemblies. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 13410-4	16.4	105
5	A study of the specific contact resistance and channel resistivity of amorphous IZO thin film transistors with IZO source/drain metallization. <i>Journal of Applied Physics</i> , <b>2011</b> , 109, 063702	2.5	60
4	On the effect of Ti on the stability of amorphous indium zinc oxide used in thin film transistor applications. <i>Applied Physics Letters</i> , <b>2011</b> , 98, 262108	3.4	20
3	The effect of growth temperature on physical properties of heavily doped ZnO:Al films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2009</b> , 206, 697-703	1.6	26
2	Amorphous IZO-based transparent thin film transistors. <i>Thin Solid Films</i> , <b>2008</b> , 516, 5894-5898	2.2	186
1	Hybrid Silicon-Polymer Photodetector Engineered Using Oxidative Chemical Vapor Deposition for High-Performance and Bias-Switchable Multi-Functionality. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 1601641	15.6	1