

Hwa Sung Lee

List of Publications by Year in descending order

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65
papers

2,171
citations

331670

21
h-index

223800

46
g-index

65
all docs

65
docs citations

65
times ranked

2879
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Reliable Passive RFID-Based Inductor-Capacitor Sensory System Strengthened by Solvatochromism for Fast and Wide-Range Lactate Detection. <i>IEEE Sensors Journal</i> , 2022, 22, 12228-12236.	4.7	3
2	Anti-dryable, anti-freezable, and self-healable conductive hydrogel for adhesive electrodes. <i>Composite Interfaces</i> , 2022, 29, 1561-1571.	2.3	1
3	Vacuum Lamination of Polymer Gate Dielectric Layers for Facile Fabrication of Organic Transistors. <i>ACS Applied Electronic Materials</i> , 2022, 4, 3640-3647.	4.3	2
4	A Battery-Free, Chipless, Highly Sensitive LC Pressure Sensor Tag Using PEDOT: PSS and Melamine Foam. <i>IEEE Sensors Journal</i> , 2021, 21, 2184-2193.	4.7	18
5	Facile and reliable route to ensure chemical-environmental stability of pen-printed organic transistors with blended polymer Semiconductor-Insulator. <i>Materials Chemistry and Physics</i> , 2021, 263, 124346.	4.0	1
6	Understanding adsorption geometry of organometallic molecules on graphite. <i>Scientific Reports</i> , 2021, 11, 18497.	3.3	1
7	Electron-interfered field-effect transistors as a sensing platform for detecting a delicate surface chemical reaction. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8179-8188.	5.5	3
8	Advanced Organic Transistor-Based Sensors Utilizing a Solvatochromic Medium with Twisted Intramolecular Charge-Transfer Behavior and Its Application to Ammonia Gas Detection. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 56385-56393.	8.0	11
9	Influences of Energetically Controlled Dielectric Functionality on Polymer Field-Effect Transistor Performance. <i>Journal of Physical Chemistry C</i> , 2020, 124, 161-166.	3.1	9
10	Tuning Interfacial Properties by Spontaneously Generated Organic Interlayers in Top-Contact-Structured Organic Transistors. <i>Advanced Functional Materials</i> , 2020, 30, 2002979.	14.9	11
11	Polymeric Conformation of Organic Interlayers as a Determining Parameter for the Charge Transport of Organic Field-Effect Transistors. <i>Macromolecular Research</i> , 2020, 28, 670-676.	2.4	4
12	Omnidirectionally Stretchable Organic Transistors for Use in Wearable Electronics: Ensuring Overall Stretchability by Applying Nonstretchable Wrinkled Components. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 32979-32986.	8.0	12
13	Direct Printing of Asymmetric Electrodes for Improving Charge Injection/Extraction in Organic Electronics. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 33999-34010.	8.0	13
14	Understanding Marangoni flow-driven solidification of polymer semiconducting films on an aqueous substrate. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10010-10020.	5.5	7
15	Highly sensitive, fast and wide dynamic range lactate sensor containing solvatochromic sensing membrane by combining the capacitance-to-phase conversion technique. <i>Sensors and Actuators B: Chemical</i> , 2020, 309, 127783.	7.8	11
16	Omnidirectional Strain-Independent Organic Transistors Integrated onto an Elastomer Template with a Spontaneously Formed Fingerprint-Mimicking Microtopography. <i>Advanced Electronic Materials</i> , 2019, 5, 1900441.	5.1	9
17	Precise Control over Polymer Semiconducting Films by Tuning the Thermal Behavior of the Thin-Film State's Crystalline and Morphological Structures. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40358-40365.	8.0	9
18	Fabrication of Highly Sensitive Piezocapacitive Pressure Sensors using a Simple and Inexpensive Home Milk Frother. <i>Physical Review Applied</i> , 2019, 11, .	3.8	11

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19	A highly sensitive and stress-direction-recognizing asterisk-shaped carbon nanotube strain sensor. <i>Journal of Materials Chemistry C</i> , 2019, 7, 9504-9512.	5.5	26
20	Surface treatment of Parylene-C gate dielectric for highly stable organic field-effect transistors. <i>Organic Electronics</i> , 2019, 69, 128-134.	2.6	5
21	Engineering Asymmetric Charge Injection/Extraction to Optimize Organic Transistor Performances. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 10108-10117.	8.0	21
22	Design Strategies in the Pen-Printing Technique toward Elaborated Organic Electronics. <i>Journal of Physical Chemistry C</i> , 2019, 123, 5255-5263.	3.1	4
23	Thermally Crosslinked Biocompatible Hydrophilic Polyvinylpyrrolidone Coatings on Polypropylene with Enhanced Mechanical and Adhesion Properties. <i>Macromolecular Research</i> , 2018, 26, 151-156.	2.4	12
24	Photocrosslinkable zinc diacrylate-based gate insulators for reliable operation of organic thin film transistors. <i>Organic Electronics</i> , 2018, 59, 49-55.	2.6	3
25	Chemically Robust Superhydrophobic Poly(vinylidene fluoride) Films with Grafting Crosslinkable Fluorinated Silane. <i>Macromolecular Research</i> , 2018, 26, 493-499.	2.4	4
26	Novel Eco-Friendly Starch Paper for Use in Flexible, Transparent, and Disposable Organic Electronics. <i>Advanced Functional Materials</i> , 2018, 28, 1704433.	14.9	87
27	Crisscross-designed piezoresistive strain sensors with a cracked microtectonic architecture for direction-selective tensile perception. <i>Journal of Materials Chemistry C</i> , 2018, 6, 11170-11177.	5.5	15
28	Macroscopic Interfacial Property as a Determining Parameter for Reliable Prediction of Charge Mobility in Organic Transistors. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17695-17705.	3.1	7
29	Thermal Gradient During Vacuum-Deposition Dramatically Enhances Charge Transport in Organic Semiconductors: Toward High-Performance N-Type Organic Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 9910-9917.	8.0	4
30	Tuning the Work Function of Printed Polymer Electrodes by Introducing a Fluorinated Polymer To Enhance the Operational Stability in Bottom-Contact Organic Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 12637-12646.	8.0	15
31	Flexible piezocapacitive sensors based on wrinkled microstructures: toward low-cost fabrication of pressure sensors over large areas. <i>RSC Advances</i> , 2017, 7, 39420-39426.	3.6	84
32	Exploring the ultrasonic nozzle spray-coating technique for the fabrication of solution-processed organic electronics. <i>Organic Electronics</i> , 2017, 49, 212-217.	2.6	11
33	Marginal solvents preferentially improve the molecular order of thin polythiophene films. <i>RSC Advances</i> , 2016, 6, 23640-23644.	3.6	6
34	Optimization of electrohydrodynamic-printed organic electrodes for bottom-contact organic thin film transistors. <i>Organic Electronics</i> , 2016, 38, 48-54.	2.6	23
35	Dense Assembly of Soluble Acene Crystal Ribbons and Its Application to Organic Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 24753-24760.	8.0	11
36	Electrohydrodynamic printing of poly(3,4-ethylenedioxythiophene):poly(4-styrenesulfonate) electrodes with ratio-optimized surfactant. <i>RSC Advances</i> , 2016, 6, 2004-2010.	3.6	37

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37	Impact of Energetically Engineered Dielectrics on Charge Transport in Vacuum-Deposited Bis(triisopropylsilyl)ethynylpentacene. <i>Journal of Physical Chemistry C</i> , 2015, 119, 28819-28827.	3.1	15
38	Fully Drawn All-Organic Flexible Transistors Prepared by Capillary Pen Printing on Flexible Planar and Curvilinear Substrates. <i>Advanced Electronic Materials</i> , 2015, 1, 1500301.	5.1	26
39	Surface-Order Mediated Assembly of π -Conjugated Molecules on Self-Assembled Monolayers with Controlled Grain Structures. <i>Chemistry of Materials</i> , 2015, 27, 4669-4676.	6.7	33
40	Branched Segments in Polymer Gate Dielectric as Intrinsic Charge Trap Sites in Organic Transistors. <i>Journal of Physical Chemistry C</i> , 2015, 119, 7670-7677.	3.1	12
41	Gate-Bias Stability Behavior Tailored by Dielectric Polymer Stereostructure in Organic Transistors. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 25045-25052.	8.0	10
42	Preparation of highly conductive reduced graphite oxide/poly(styrene-co-butyl acrylate) composites via miniemulsion polymerization. <i>Polymer</i> , 2014, 55, 5088-5094.	3.8	17
43	Microstructural Control over Soluble Pentacene Deposited by Capillary Pen Printing for Organic Electronics. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 7838-7844.	8.0	17
44	Behavior of pentacene molecules deposited onto roughness-controlled polymer dielectrics films and its effect on FET performance. <i>Synthetic Metals</i> , 2013, 163, 7-12.	3.9	14
45	Directly Drawn Organic Transistors by Capillary Pen: A New Facile Patterning Method using Capillary Action for Soluble Organic Materials. <i>Advanced Materials</i> , 2013, 25, 4117-4122.	21.0	43
46	Organic Field Effect Transistors: Directly Drawn Organic Transistors by Capillary Pen: A New Facile Patterning Method using Capillary Action for Soluble Organic Materials (<i>Adv. Mater.</i> 30/2013). <i>Advanced Materials</i> , 2013, 25, 4062-4062.	21.0	0
47	Surface Viscoelasticity of an Organic Interlayer Affects the Crystalline Nanostructure of an Organic Semiconductor and Its Electrical Performance. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21673-21678.	3.1	7
48	The Influence of the Solvent Evaporation Rate on the Phase Separation and Electrical Performances of Soluble Acene-Polymer Blend Semiconductors. <i>Advanced Functional Materials</i> , 2012, 22, 267-281.	14.9	90
49	A polymer brush organic interlayer improves the overlying pentacene nanostructure and organic field-effect transistor performance. <i>Journal of Materials Chemistry</i> , 2011, 21, 15580.	6.7	71
50	Solubility-driven polythiophene nanowires and their electrical characteristics. <i>Journal of Materials Chemistry</i> , 2011, 21, 2338-2343.	6.7	59
51	Interpenetrating polymer network dielectrics for high-performance organic field-effect transistors. <i>Journal of Materials Chemistry</i> , 2011, 21, 6968.	6.7	26
52	Inkjet-Printed Single-Droplet Organic Transistors Based on Semiconductor Nanowires Embedded in Insulating Polymers. <i>Advanced Functional Materials</i> , 2010, 20, 3292-3297.	14.9	100
53	Low-voltage organic transistors with titanium oxide/polystyrene bilayer dielectrics. <i>Applied Physics Letters</i> , 2009, 94, 113303.	3.3	55
54	Selectively patterned highly conductive poly(3,4-ethylenedioxythiophene)-tosylate electrodes for high performance organic field-effect transistors. <i>Applied Physics Letters</i> , 2009, 95, 233509.	3.3	11

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55	Control of the Morphology and Structural Development of Solution-Processed Functionalized Acenes for High-Performance Organic Transistors. <i>Advanced Functional Materials</i> , 2009, 19, 1515-1525.	14.9	147
56	Semiconductor-Dielectric Blends: A Facile All Solution Route to Flexible All-Organic Transistors. <i>Advanced Materials</i> , 2009, 21, 4243-4248.	21.0	120
57	Effect of curing conditions of a poly(4-vinylphenol)gate dielectric on the performance of a pentacene-based thin film transistor. <i>Macromolecular Research</i> , 2009, 17, 436-440.	2.4	10
58	Tunable Crystal Nanostructures of Pentacene Thin Films on Gate Dielectrics Possessing Surface-Order Control. <i>Advanced Functional Materials</i> , 2008, 18, 1363-1370.	14.9	135
59	Effect of the Phase States of Self-Assembled Monolayers on Pentacene Growth and Thin-Film Transistor Characteristics. <i>Journal of the American Chemical Society</i> , 2008, 130, 10556-10564.	13.7	221
60	High performance polythiophene thin-film transistors doped with very small amounts of an electron acceptor. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	109
61	Effect of Phase State of Self-Assembled Monolayers on Pentacene Growth and Thin Film Transistors Characteristics. <i>AIP Conference Proceedings</i> , 2007, , .	0.4	0
62	Interface engineering in organic transistors. <i>Materials Today</i> , 2007, 10, 46-54.	14.2	278
63	Enhancement of electron injection in polymer light-emitting diodes with a supramolecular insulating nanolayer on the bottom cathode. <i>Applied Physics Letters</i> , 2006, 89, 083508.	3.3	5
64	Patterning the organic electrodes of all-organic thin film transistors with a simple spray printing technique. <i>Applied Physics Letters</i> , 2006, 89, 183501.	3.3	27
65	Tuning Organic Semiconducting Binary Heterostructures Inherited by Template Nanostructures for Achieving High-Performance Organic Transistors. <i>Advanced Electronic Materials</i> , 0, , 2101115.	5.1	2