

# Wei Lin Leong

## List of Publications by Year in descending order

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63  
papers

7,801  
citations

117625

34  
h-index

133252

59  
g-index

65  
all docs

65  
docs citations

65  
times ranked

9480  
citing authors

#	ARTICLE	IF	CITATIONS
1	Solution-processed small-molecule solar cells with 6.7% efficiency. <i>Nature Materials</i> , 2012, 11, 44-48.	27.5	1,437
2	Lead-free Halide Perovskite Solar Cells with High Photocurrents Realized Through Vacancy Modulation. <i>Advanced Materials</i> , 2014, 26, 7122-7127.	21.0	942
3	Intensity Dependence of Current-Voltage Characteristics and Recombination in High-Efficiency Solution-Processed Small-Molecule Solar Cells. <i>ACS Nano</i> , 2013, 7, 4569-4577.	14.6	857
4	Lead-free germanium iodide perovskite materials for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2015, 3, 23829-23832.	10.3	841
5	Formamidinium tin-based perovskite with low $E_{\text{sub}g}$ for photovoltaic applications. <i>Journal of Materials Chemistry A</i> , 2015, 3, 14996-15000.	10.3	449
6	Charge Formation, Recombination, and Sweep-Out Dynamics in Organic Solar Cells. <i>Advanced Functional Materials</i> , 2012, 22, 1116-1128.	14.9	286
7	Identifying a Threshold Impurity Level for Organic Solar Cells: Enhanced First-Order Recombination Via Well-Defined PC <sub>84</sub> BM Traps in Organic Bulk Heterojunction Solar Cells. <i>Advanced Functional Materials</i> , 2011, 21, 3083-3092.	14.9	212
8	Differential Resistance Analysis of Charge Carrier Losses in Organic Bulk Heterojunction Solar Cells: Observing the Transition from Bimolecular to Trap-Assisted Recombination and Quantifying the Order of Recombination. <i>Advanced Energy Materials</i> , 2011, 1, 517-522.	19.5	204
9	Non-Volatile Organic Memory Applications Enabled by In Situ Synthesis of Gold Nanoparticles in a Self-Assembled Block Copolymer. <i>Advanced Materials</i> , 2008, 20, 2325-2331.	21.0	186
10	A swivel-cruciform thiophene based hole-transporting material for efficient perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6305-6309.	10.3	167
11	Flexible Ionic-Electronic Hybrid Oxide Synaptic TFTs with Programmable Dynamic Plasticity for Brain-Inspired Neuromorphic Computing. <i>Small</i> , 2017, 13, 1701193.	10.0	152
12	Charging phenomena in pentacene-gold nanoparticle memory device. <i>Applied Physics Letters</i> , 2007, 90, 042906.	3.3	141
13	Towards printable organic thin film transistor based flash memory devices. <i>Journal of Materials Chemistry</i> , 2011, 21, 5203.	6.7	133
14	Identifying Fundamental Limitations in Halide Perovskite Solar Cells. <i>Advanced Materials</i> , 2016, 28, 2439-2445.	21.0	129
15	Lightweight, Superelastic Boron Nitride/Polydimethylsiloxane Foam as Air Dielectric Substitute for Multifunctional Capacitive Sensor Applications. <i>Advanced Functional Materials</i> , 2020, 30, 1909604.	14.9	117
16	Micellar poly(styrene- <i>b</i> -4-vinylpyridine)-nanoparticle hybrid system for non-volatile organic transistor memory. <i>Journal of Materials Chemistry</i> , 2009, 19, 7354.	6.7	99
17	A New Terthiophene-Thienopyrrolodione Copolymer-Based Bulk Heterojunction Solar Cell with High Open-Circuit Voltage. <i>Advanced Energy Materials</i> , 2012, 2, 1397-1403.	19.5	98
18	Efficient and Ambient-Air-Stable Solar Cell with Highly Oriented 2D@3D Perovskites. <i>Advanced Functional Materials</i> , 2018, 28, 1801654.	14.9	98

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19	Ionic-Liquid Doping Enables High Transconductance, Fast Response Time, and High Ion Sensitivity in Organic Electrochemical Transistors. <i>Advanced Materials</i> , 2019, 31, e1805544.	21.0	95
20	Role of trace impurities in the photovoltaic performance of solution processed small-molecule bulk heterojunction solar cells. <i>Chemical Science</i> , 2012, 3, 2103.	7.4	84
21	Organic Electrochemical Transistors for In Vivo Bioelectronics. <i>Advanced Materials</i> , 2021, 33, e2101874.	21.0	78
22	Human Hair Keratin for Biocompatible Flexible and Transient Electronic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 43004-43012.	8.0	74
23	A Highly Conducting Polymer for Self-Healable, Printable, and Stretchable Organic Electrochemical Transistor Arrays and Near Hysteresis-Free Soft Tactile Sensors. <i>Advanced Materials</i> , 2022, 34, e2200682.	21.0	63
24	Understanding the Role of Thermal Processing in High Performance Solution Processed Small Molecule Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2013, 3, 356-363.	19.5	52
25	Universal Spray-Deposition Process for Scalable, High-Performance, and Stable Organic Electrochemical Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 20757-20764.	8.0	48
26	Recent Technological Advances in Fabrication and Application of Organic Electrochemical Transistors. <i>Advanced Materials Technologies</i> , 2020, 5, 2000523.	5.8	46
27	Proquinoidal-Conjugated Polymer as an Effective Strategy for the Enhancement of Electrical Conductivity and Thermoelectric Properties. <i>Chemistry of Materials</i> , 2019, 31, 8543-8550.	6.7	43
28	Ionic-Liquid Induced Morphology Tuning of PEDOT:PSS for High-Performance Organic Electrochemical Transistors. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	43
29	Effects of Impurities on Operational Mechanism of Organic Bulk Heterojunction Solar Cells. <i>Advanced Materials</i> , 2013, 25, 1706-1712.	21.0	42
30	Contact Modulated Ionic Transfer Doping in All-Solid-State Organic Electrochemical Transistor for Ultra-High Sensitive Tactile Perception at Low Operating Voltage. <i>Advanced Functional Materials</i> , 2020, 30, 2006186.	14.9	42
31	Self-Healable Organic Electrochemical Transistor with High Transconductance, Fast Response, and Long-Term Stability. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 33979-33988.	8.0	40
32	Enhancing the Electrochemical Doping Efficiency in Diketopyrrolopyrrole-Based Polymer for Organic Electrochemical Transistors. <i>Advanced Electronic Materials</i> , 2021, 7, .	5.1	39
33	Alkali Additives Enable Efficient Large Area (>55 cm <sup>2</sup> ) Slot-Die Coated Perovskite Solar Modules. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	39
34	All Inorganic Mixed Halide Perovskite Nanocrystal-Graphene Hybrid Photodetector: From Ultrahigh Gain to Photostability. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 27064-27072.	8.0	37
35	Optogenetics inspired transition metal dichalcogenide neuristors for in-memory deep recurrent neural networks. <i>Nature Communications</i> , 2020, 11, 3211.	12.8	36
36	Recent advancements and perspectives on light management and high performance in perovskite light-emitting diodes. <i>Nanophotonics</i> , 2021, 10, 2103-2143.	6.0	35

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37	Solution processed non-volatile top-gate polymer field-effect transistors. <i>Journal of Materials Chemistry</i> , 2011, 21, 8971.	6.7	34
38	Cubic NaSbS <sub>2</sub> as an Ionic-Electronic Coupled Semiconductor for Switchable Photovoltaic and Neuromorphic Device Applications. <i>Advanced Materials</i> , 2020, 32, e1906976.	21.0	34
39	Slot-die coated methylammonium-free perovskite solar cells with 18% efficiency. <i>Solar Energy Materials and Solar Cells</i> , 2021, 230, 111189.	6.2	28
40	Halide perovskite-based indoor photovoltaics: recent development and challenges. <i>Materials Today Energy</i> , 2022, 23, 100907.	4.7	27
41	Self-healable electrochromic ion gels for low power and robust displays. <i>Organic Electronics</i> , 2019, 71, 199-205.	2.6	21
42	Charging dynamics of discrete gold nanoparticle arrays self-assembled within a poly(styrene- <i>b</i> -4-vinylpyridine) diblock copolymer template. <i>Applied Physics Letters</i> , 2008, 93, 222908.	3.3	20
43	Diketopyrrolopyrrole based organic semiconductors with different numbers of thiophene units: symmetry tuning effect on electronic devices. <i>New Journal of Chemistry</i> , 2018, 42, 4017-4028.	2.8	19
44	Manifestation of Carrier Relaxation Through the Manifold of Localized States in PCDTBT:PC <sub>60</sub> BM Bulk Heterojunction Material: The Role of PC <sub>84</sub> BM Traps on the Carrier Transport. <i>Advanced Materials</i> , 2012, 24, 2273-2277.	21.0	18
45	Efficient Polymer Solar Cells Enabled by Low Temperature Processed Ternary Metal Oxide as Electron Transport Interlayer with Large Stoichiometry Window. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 11099-11106.	8.0	15
46	Novel amphiphilic corannulene additive for moisture-resistant perovskite solar cells. <i>Chemical Communications</i> , 2020, 56, 11997-12000.	4.1	15
47	Perturbation-Induced Seeding and Crystallization of Hybrid Perovskites over Surface-Modified Substrates for Optoelectronic Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 27727-27734.	8.0	12
48	Elastic modulus tailoring in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite system by the introduction of two dimensionality using (5-AVA) <sub>2</sub> PbI <sub>4</sub> . <i>Solar Energy</i> , 2021, 224, 27-34.	6.1	10
49	Direct arylation polymerization toward ultra-low bandgap poly(thienoisoindigo- <i>alt</i> -diketopyrrolopyrrole) conjugated polymers: The effect of I <sub>2</sub> protection on the polymerization and properties of the polymers. <i>Journal of Polymer Science Part A</i> , 2017, 55, 3205-3213.	2.3	9
50	Large area, high efficiency and stable perovskite solar cells enabled by fine control of intermediate phase. <i>Solar Energy Materials and Solar Cells</i> , 2019, 201, 110113.	6.2	9
51	Crown ether enabled enhancement of ionic-electronic properties of PEDOT:PSS. <i>Materials Horizons</i> , 2022, 9, 2408-2415.	12.2	8
52	Self-Powered Organic Electrochemical Transistors with Stable, Light-Intensity Independent Operation Enabled by Carbon-Based Perovskite Solar Cells. <i>Advanced Materials Technologies</i> , 0, , 2100565.	5.8	7
53	Non-Volatile Organic Transistor Memory Based on Black Phosphorus Quantum Dots as Charge Trapping Layer. <i>IEEE Electron Device Letters</i> , 2020, 41, 852-855.	3.9	6
54	Polaron Delocalization Dependence of the Conductivity and the Seebeck Coefficient in Doped Conjugated Polymers. <i>Journal of Physical Chemistry B</i> , 2022, 126, 2073-2085.	2.6	5

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55	Improvement in polymer solar cell performance and eliminating light soaking effect via UV-light treatment on conjugated polyelectrolyte interlayer. <i>Organic Electronics</i> , 2015, 25, 105-111.	2.6	4
56	Water robustness of organic thin-film transistors based on pyrazino[2,3- <i>g</i> ]quinoxaline-dione conjugated polymer. <i>Journal of Materials Chemistry C</i> , 2020, 8, 4157-4163.	5.5	4
57	Operando Direct Observation of Filament Formation in Resistive Switching Devices Enabled by a Topological Transformation Molecule. <i>Nano Letters</i> , 2021, 21, 9262-9269.	9.1	4
58	Comparing data driven and physics inspired models for hopping transport in organic field effect transistors. <i>Scientific Reports</i> , 2021, 11, 23621.	3.3	4
59	Flexible Organic Electronics: Contact Modulated Ionic Transfer Doping in All-Solid-State Organic Electrochemical Transistor for Ultra-High Sensitive Tactile Perception at Low Operating Voltage (Adv.) <i>Tj ETQq1 110.784314 rgBT /O</i>	10.784314	1
60	Biopolymer based gate dielectrics for high performance organic thin film transistors. , 2020, , .		1
61	Organic Electrochemical Transistors for In Vivo Bioelectronics (Adv. Mater. 49/2021). <i>Advanced Materials</i> , 2021, 33, .	21.0	1
62	Ammonium sulfate treatment at TiO <sub>2</sub> /perovskite interface boosts operational stability of perovskite solar cells. <i>Journal of Materials Chemistry C</i> , 0, , .	5.5	0
63	Tuning Precursors Ink Stoichiometry for High Efficiency Scalable Perovskite Photovoltaics. , 2021, , .		0