

# Kuan Liu

## List of Publications by Year in descending order

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56  
papers

4,859  
citations

117453

34  
h-index

155451

55  
g-index

56  
all docs

56  
docs citations

56  
times ranked

4396  
citing authors

#	ARTICLE	IF	CITATIONS
1	Novel Oligomer Enables Green Solvent Processed 17.5% Ternary Organic Solar Cells: Synergistic Energy Loss Reduction and Morphology Fine-tuning. <i>Advanced Materials</i> , 2022, 34, e2107659.	11.1	57
2	ZnO electron transporting layer engineering realized over 20% efficiency and over 1.28 V open-circuit voltage in all-inorganic perovskite solar cells. <i>EcoMat</i> , 2022, 4, .	6.8	23
3	Manipulating Crystallization Kinetics in High-Performance Blade-Coated Perovskite Solar Cells via Cosolvent-Assisted Phase Transition. <i>Advanced Materials</i> , 2022, 34, e2200276.	11.1	64
4	Self-assembly enables simple structure organic photovoltaics via green-solvent and open-air-printing: Closing the lab-to-fab gap. <i>Materials Today</i> , 2022, 55, 46-55.	8.3	23
5	Ambipolar-transport wide-bandgap perovskite interlayer for organic photovoltaics with over 18% efficiency. <i>Matter</i> , 2022, 5, 2238-2250.	5.0	14
6	Printing High-Efficiency Perovskite Solar Cells in High-Humidity Ambient Environment: An In Situ Guided Investigation. <i>Advanced Science</i> , 2021, 8, 2003359.	5.6	40
7	Additive-induced miscibility regulation and hierarchical morphology enable 17.5% binary organic solar cells. <i>Energy and Environmental Science</i> , 2021, 14, 3044-3052.	15.6	170
8	Stretchable ITO-Free Organic Solar Cells with Intrinsic Anti-Reflection Substrate for High-Efficiency Outdoor and Indoor Energy Harvesting. <i>Advanced Functional Materials</i> , 2021, 31, 2010172.	7.8	53
9	Bottom-Up Quasi-Epitaxial Growth of Hybrid Perovskite from Solution Process: Achieving High-Efficiency Solar Cells via Template-Guided Crystallization. <i>Advanced Materials</i> , 2021, 33, e2100009.	11.1	44
10	Multifunctional Crosslinking-Enabled Strain-Regulating Crystallization for Stable, Efficient $\text{FAPbI}_3$ -Based Perovskite Solar Cells. <i>Advanced Materials</i> , 2021, 33, e2008487.	11.1	106
11	Stable and low-photovoltage-loss perovskite solar cells by multifunctional passivation. <i>Nature Photonics</i> , 2021, 15, 681-689.	15.6	255
12	Graded bulk-heterojunction enables 17% binary organic solar cells via nonhalogenated open air coating. <i>Nature Communications</i> , 2021, 12, 4815.	5.8	135
13	Upscaling perovskite solar cells via the ambient deposition of perovskite thin films. <i>Trends in Chemistry</i> , 2021, 3, 747-764.	4.4	12
14	Uncovering the out-of-plane nanomorphology of organic photovoltaic bulk heterojunction by GTSAXS. <i>Nature Communications</i> , 2021, 12, 6226.	5.8	23
15	Room-temperature multiple ligands-tailored SnO <sub>2</sub> quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high VOC. <i>Light: Science and Applications</i> , 2021, 10, 239.	7.7	40
16	Application of a new $\pi$ -conjugated ladder-like polymer in enhancing the stability and efficiency of perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1417-1424.	5.2	32
17	Passivated Metal Oxide n-Type Contacts for Efficient and Stable Organic Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 1111-1118.	2.5	26
18	Zwitterionic-Surfactant-Assisted Room-Temperature Coating of Efficient Perovskite Solar Cells. <i>Joule</i> , 2020, 4, 2404-2425.	11.7	137

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19	Effects of Fluorination Position on Fused-Ring Electron Acceptors. <i>Small Structures</i> , 2020, 1, 2000006.	6.9	8
20	Size Modulation and Heterovalent Doping Facilitated Hybrid Organic and Perovskite Quantum Dot Bulk Heterojunction Solar Cells. <i>ACS Applied Energy Materials</i> , 2020, 3, 11359-11367.	2.5	14
21	Enhancing Open-Circuit Voltage of High-Efficiency Nonfullerene Ternary Solar Cells with a Star-Shaped Acceptor. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 50660-50667.	4.0	16
22	Precise Control of Perovskite Crystallization Kinetics via Sequential A-Site Doping. <i>Advanced Materials</i> , 2020, 32, e2004630.	11.1	122
23	Effects of linking units on fused-ring electron acceptor dimers. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13735-13741.	5.2	8
24	A thiophene-fused benzotriazole unit as a $\pi$ -bridge in A-D-A type acceptor to achieve more balanced JSC and VOC for OSCs. <i>Organic Electronics</i> , 2020, 82, 105705.	1.4	10
25	High-Performance Fluorinated Fused-Ring Electron Acceptor with 3D Stacking and Exciton/Charge Transport. <i>Advanced Materials</i> , 2020, 32, e2000645.	11.1	122
26	Efficient Slantwise Aligned Dion-Jacobson Phase Perovskite Solar Cells Based on Trans-1,4-Cyclohexanediamine. <i>Small</i> , 2020, 16, e2003098.	5.2	33
27	Comparison of Linear- and Star-Shaped Fused-Ring Electron Acceptors. , 2019, 1, 367-374.		43
28	Z-Shaped Fused-Chrysene Electron Acceptors for Organic Photovoltaics. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 33006-33011.	4.0	18
29	Facile synthesis of high-performance nonfullerene acceptor isomers <i>via</i> a one stone two birds strategy. <i>Journal of Materials Chemistry A</i> , 2019, 7, 20667-20674.	5.2	19
30	Enhancing the $J_{SC}$ of P3HT-Based OSCs via a Thiophene-Fused Aromatic Heterocycle as a $\pi$ -Bridge for A-D-A Type Acceptors. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 26005-26016.	4.0	19
31	A Simple Way to Simultaneously Release the Interface Stress and Realize the Inner Encapsulation for Highly Efficient and Stable Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019, 29, 1905336.	7.8	96
32	Black Phosphorous Quantum Dots Sandwiched Organic Solar Cells. <i>Small</i> , 2019, 15, e1903977.	5.2	41
33	Fused octacyclic electron acceptor isomers for organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 21432-21437.	5.2	26
34	High-performance organic solar cells based on polymer donor/small molecule donor/nonfullerene acceptor ternary blends. <i>Journal of Materials Chemistry A</i> , 2019, 7, 2268-2274.	5.2	42
35	New roles of fused-ring electron acceptors in organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4766-4770.	5.2	5
36	High-Performance Mid-Bandgap Fused-Pyrene Electron Acceptor. <i>Chemistry of Materials</i> , 2019, 31, 6484-6490.	3.2	40

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37	Enhancing the Performance of Polymer Solar Cells via Core Engineering of NIR-Absorbing Electron Acceptors. <i>Advanced Materials</i> , 2018, 30, e1706571.	11.1	309
38	Enhancing the performance of the electron acceptor ITIC-Th via tailoring its end groups. <i>Materials Chemistry Frontiers</i> , 2018, 2, 537-543.	3.2	46
39	Enhancing the performance of a fused-ring electron acceptor via extending benzene to naphthalene. <i>Journal of Materials Chemistry C</i> , 2018, 6, 66-71.	2.7	38
40	High-performance ternary organic solar cells with photoresponses beyond 1000 nm. <i>Journal of Materials Chemistry A</i> , 2018, 6, 24210-24215.	5.2	31
41	Fullerene derivative anchored SnO <sub>2</sub> for high-performance perovskite solar cells. <i>Energy and Environmental Science</i> , 2018, 11, 3463-3471.	15.6	205
42	High-Performance Fused Ring Electron Acceptor-Perovskite Hybrid. <i>Journal of the American Chemical Society</i> , 2018, 140, 14938-14944.	6.6	71
43	Effect of Core Size on Performance of Fused-Ring Electron Acceptors. <i>Chemistry of Materials</i> , 2018, 30, 5390-5396.	3.2	102
44	Enhancing the performance of non-fullerene organic solar cells via end group engineering of fused-ring electron acceptors. <i>Journal of Materials Chemistry A</i> , 2018, 6, 16638-16644.	5.2	47
45	Alkoxy-Induced Near-Infrared Sensitive Electron Acceptor for High-Performance Organic Solar Cells. <i>Chemistry of Materials</i> , 2018, 30, 4150-4156.	3.2	79
46	Fused Nonacyclic Electron Acceptors for Efficient Polymer Solar Cells. <i>Journal of the American Chemical Society</i> , 2017, 139, 1336-1343.	6.6	813
47	High-Mobility p-Type Organic Semiconducting Interlayer Enhancing Efficiency and Stability of Perovskite Solar Cells. <i>Advanced Science</i> , 2017, 4, 1700025.	5.6	36
48	Fused Hexacyclic Nonfullerene Acceptor with Strong Near-Infrared Absorption for Semitransparent Organic Solar Cells with 9.77% Efficiency. <i>Advanced Materials</i> , 2017, 29, 1701308.	11.1	364
49	A perylene diimide based polymer: a dual function interfacial material for efficient perovskite solar cells. <i>Materials Chemistry Frontiers</i> , 2017, 1, 1079-1086.	3.2	51
50	Fluorinated fused nonacyclic interfacial materials for efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21414-21421.	5.2	59
51	Electropolymerization Porous Aromatic Framework Film As a Hole-Transport Layer for Inverted Perovskite Solar Cells with Superior Stability. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 43688-43695.	4.0	19
52	Enhancing Efficiency and Stability of Organic Solar Cells by UV Absorbent. <i>Solar Rrl</i> , 2017, 1, 1700148.	3.1	21
53	A low temperature processed fused-ring electron transport material for efficient planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 24820-24825.	5.2	46
54	Spiro[fluorene-9,9'-xanthene]-based hole transporting materials for efficient perovskite solar cells with enhanced stability. <i>Materials Chemistry Frontiers</i> , 2017, 1, 100-110.	3.2	84

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55	Triarylamine: Versatile Platform for Organic, Dye-Sensitized, and Perovskite Solar Cells. <i>Chemical Reviews</i> , 2016, 116, 14675-14725.	23.0	418
56	Roll-coating fabrication of flexible organic solar cells: comparison of fullerene and fullerene-free systems. <i>Journal of Materials Chemistry A</i> , 2016, 4, 1044-1051.	5.2	84