Yongsheng Liu

List of Publications by Year
in descending order

77 papers	23,593 citations	34016 52 h-index	76769 74 g-index
77 all docs	77 docs citations	77 times ranked	18822 citing authors

#	Article	IF	Citations
1	Interface engineering of highly efficient perovskite solar cells. Science, 2014, 345, 542-546.	6.0	5,936
2	Planar Heterojunction Perovskite Solar Cells via Vapor-Assisted Solution Process. Journal of the American Chemical Society, 2014, 136, 622-625.	6.6	2,091
3	Improved air stability of perovskite solar cells via solution-processed metal oxide transport layers. Nature Nanotechnology, 2016, 11, 75-81.	15.6	1,890
4	Controllable Self-Induced Passivation of Hybrid Lead Iodide Perovskites toward High Performance Solar Cells. Nano Letters, 2014, 14, 4158-4163.	4.5	1,343
5	Low-Temperature Solution-Processed Perovskite Solar Cells with High Efficiency and Flexibility. ACS Nano, 2014, 8, 1674-1680.	7.3	1,320
6	Low-Bandgap Near-IR Conjugated Polymers/Molecules for Organic Electronics. Chemical Reviews, 2015, 115, 12633-12665.	23.0	1,029
7	Solution-Processed and High-Performance Organic Solar Cells Using Small Molecules with a Benzodithiophene Unit. Journal of the American Chemical Society, 2013, 135, 8484-8487.	6.6	675
8	Moisture assisted perovskite film growth for high performance solar cells. Applied Physics Letters, 2014, 105, .	1.5	667
9	Small Molecules Based on Benzo[1,2-b:4,5-bâ€²]dithiophene Unit for High-Performance Solution-Processed Organic Solar Cells. Journal of the American Chemical Society, 2012, 134, 16345-16351.	6.6	563
10	Solution-processed small-molecule solar cells: breaking the 10% power conversion efficiency. Scientific Reports, 2013, 3, 3356.	1.6	542
11	Multifunctional Fullerene Derivative for Interface Engineering in Perovskite Solar Cells. Journal of the American Chemical Society, 2015, 137, 15540-15547.	6.6	490
12	Guanidinium: A Route to Enhanced Carrier Lifetime and Open-Circuit Voltage in Hybrid Perovskite Solar Cells. Nano Letters, 2016, 16, 1009-1016.	4.5	479
13	The optoelectronic role of chlorine in CH3NH3PbI3(Cl)-based perovskite solar cells. Nature Communications, 2015, 6, 7269.	5.8	404
14	Two-Dimensional Ruddlesdenâ€“Popper Perovskite with Nanorod-like Morphology for Solar Cells with Efficiency Exceeding 15%. Journal of the American Chemical Society, 2018, 140, 11639-11646.	6.6	397
15	Perovskite solar cells: film formation and properties. Journal of Materials Chemistry A, 2015, 3, 9032-9050.	5.2	392
16	Solution Processable Rhodanineâ€Based Small Molecule Organic Photovoltaic Cells with a Power Conversion Efficiency of 6.1%. Advanced Energy Materials, 2012, 2, 74-77.	10.2	303
17	Synthesis of 5<i>H</i>-Dithieno[3,2-<i>b</i>:2â€²,3â€²-<i>d</i>]pyran as an Electron-Rich Building Block for Donorâ€“Acceptor Type Low-Bandgap Polymers. Macromolecules, 2013, 46, 3384-3390.	2.2	299
18	Highâ€Performance Solar Cells using a Solutionâ€Processed Small Molecule Containing Benzodithiophene Unit. Advanced Materials, 2011, 23, 5387-5391.	11.1	271

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19	Perovskite Solar Cells Employing Dopantâ€Free Organic Hole Transport Materials with Tunable Energy Levels. Advanced Materials, 2016, 28, 440-446.	11.1	249
20	Spinâ€Coated Small Molecules for High Performance Solar Cells. Advanced Energy Materials, 2011, 1, 771-775.	10.2	233
21	Synthesis, characterization and optical limiting property of covalently oligothiophene-functionalized graphene material. Carbon, 2009, 47, 3113-3121.	5.4	218
22	A dopant-free organic hole transport material for efficient planar heterojunction perovskite solar cells. Journal of Materials Chemistry A, 2015, 3, 11940-11947.	5.2	213
23	A Planar Small Molecule with Dithienosilole Core for High Efficiency Solution-Processed Organic Photovoltaic Cells. Chemistry of Materials, 2011, 23, 4666-4668.	3.2	210
24	Highly Efficient and Stable Solar Cells Based on Crystalline Oriented 2D/3D Hybrid Perovskite. Advanced Materials, 2019, 31, e1901242.	11.1	210
25	Thiophene-Based Two-Dimensional Dionâ€“Jacobson Perovskite Solar Cells with over 15% Efficiency. Journal of the American Chemical Society, 2020, 142, 11114-11122.	6.6	190
26	Organicâ€Saltâ€Assisted Crystal Growth and Orientation of Quasiâ€2D Ruddlesdenâ€“Popper Perovskites for Solar Cells with Efficiency over 19%. Advanced Materials, 2020, 32, e2001470.	11.1	162
27	Integrated Perovskite/Bulk-Heterojunction toward Efficient Solar Cells. Nano Letters, 2015, 15, 662-668.	4.5	145
28	Active Layer-Incorporated, Spectrally Tuned Au/SiO₂ Core/Shell Nanorod-Based Light Trapping for Organic Photovoltaics. ACS Nano, 2013, 7, 3815-3822.	7.3	134
29	Direct Light Pattern Integration of Low-Temperature Solution-Processed All-Oxide Flexible Electronics. ACS Nano, 2014, 8, 9680-9686.	7.3	128
30	Phase Distribution and Carrier Dynamics in Multiple-Ring Aromatic Spacer-Based Two-Dimensional Ruddlesdenâ€“Popper Perovskite Solar Cells. ACS Nano, 2020, 14, 4871-4881.	7.3	126
31	Efficient solution processed bulk-heterojunction solar cells based a donorâ€“acceptor oligothiophene. Journal of Materials Chemistry, 2010, 20, 2464.	6.7	103
32	Multifunctional Two-Dimensional Conjugated Materials for Dopant-Free Perovskite Solar Cells with Efficiency Exceeding 22%. ACS Energy Letters, 0, , 1521-1532.	8.8	103
33	Extended Conjugation Length of Nonfullerene Acceptors with Improved Planarity via Noncovalent Interactions for Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1801618.	10.2	102
34	2â€Thiopheneformamidiniumâ€Based 2D Ruddlesdenâ€“Popper Perovskite Solar Cells with Efficiency of 16.72% and Negligible Hysteresis. Advanced Energy Materials, 2020, 10, 2000694.	10.2	102
35	Spacer Engineering Using Aromatic Formamidinium in 2D/3D Hybrid Perovskites for Highly Efficient Solar Cells. ACS Nano, 2021, 15, 7811-7820.	7.3	99
36	Solutionâ€Processed Small Molecules Using Different Electron Linkers for Highâ€Performance Solar Cells. Advanced Materials, 2013, 25, 4657-4662.	11.1	96

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37	Highly Efficient and Stable Dionâ˘Jacobson Perovskite Solar Cells Enabled by Extended Ï€â€Conjugation of Organic Spacer. Advanced Materials, 2021, 33, e2105083.	11.1	92
38	Crystal Growth Regulation of 2D/3D Perovskite Films for Solar Cells with Both High Efficiency and Stability. Advanced Materials, 2022, 34, e2200705.	11.1	91
39	Interface Control in Organic Electronics Using Mixed Monolayers of Carboranethiol Isomers. Nano Letters, 2014, 14, 2946-2951.	4.5	90
40	Solution-processed bulk heterojunction organic solar cells based on an oligothiophene derivative. Applied Physics Letters, 2010, 97, .	1.5	86
41	Ionic Dopant-Free Polymer Alloy Hole Transport Materials for High-Performance Perovskite Solar Cells. Journal of the American Chemical Society, 2022, 144, 9500-9509.	6.6	85
42	Sideâ€Chain Tunability via Triple Component Random Copolymerization for Better Photovoltaic Polymers. Advanced Energy Materials, 2014, 4, 1300864.	10.2	81
43	Unraveling the High Open Circuit Voltage and High Performance of Integrated Perovskite/Organic Bulk-Heterojunction Solar Cells. Nano Letters, 2017, 17, 5140-5147.	4.5	78
44	The study of solvent additive effects in efficient polymer photovoltaics via impedance spectroscopy. Solar Energy Materials and Solar Cells, 2014, 130, 20-26.	3.0	75
45	Synthesis and properties of acceptorâ€“donorâ€“acceptor molecules based on oligothiophenes with tunable and low band gap. Tetrahedron, 2009, 65, 5209-5215.	1.0	71
46	Impact of dye end groups on acceptorâ€“donorâ€“acceptor type molecules for solution-processed photovoltaic cells. Journal of Materials Chemistry, 2012, 22, 9173.	6.7	69
47	Fluorinated Aromatic Formamidinium Spacers Boost Efficiency of Layered Ruddlesdenâ€“Popper Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 2072-2080.	8.8	66
48	Investigation of Quinquethiophene Derivatives with Different End Groups for High Open Circuit Voltage Solar Cells. Advanced Energy Materials, 2013, 3, 639-646.	10.2	65
49	Integrated Perovskite/Bulkâ€Heterojunction Organic Solar Cells. Advanced Materials, 2020, 32, e1805843.	11.1	61
50	Multifunctional Two-Dimensional Polymers for Perovskite Solar Cells with Efficiency Exceeding 24%. ACS Energy Letters, 2022, 7, 1128-1136.	8.8	60
51	Multiple-Noncovalent-Interaction-Stabilized Layered Dionâ€“Jacobson Perovskite for Efficient Solar Cells. Nano Letters, 2021, 21, 5788-5797.	4.5	59
52	Enhanced nonlinear optical properties of graphene-oligothiophene hybrid material. Optics Express, 2009, 17, 23959.	1.7	57
53	Elucidating Double Aggregation Mechanisms in the Morphology Optimization of Diketopyrrolopyrroleâ€Based Narrow Bandgap Polymer Solar Cells. Advanced Materials, 2014, 26, 3142-3147.	11.1	52
54	Efficient hole transport layers with widely tunable work function for deep HOMO level organic solar cells. Journal of Materials Chemistry A, 2015, 3, 23955-23963.	5.2	40

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55	A mixed hole transport material employing a highly planar conjugated molecule for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 5163-5170.	5.2	40
56	A solution-processed nanoscale COF-like material towards optoelectronic applications. Science China Chemistry, 2021, 64, 82-91.	4.2	38
57	Lattice reconstruction of La-incorporated CsPbI₂Br with suppressed phase transition for air-processed all-inorganic perovskite solar cells. Journal of Materials Chemistry C, 2020, 8, 3351-3358.	2.7	35
58	Cesium Halides-Assisted Crystal Growth of Perovskite Films for Efficient Planar Heterojunction Solar Cells. Chemistry of Materials, 2018, 30, 5264-5271.	3.2	30
59	Improved efficiency of solution processed small molecules organic solar cells using thermal annealing. Organic Electronics, 2013, 14, 1562-1569.	1.4	26
60	Coplanar phenanthro[9,10-d]imidazole based hole-transporting material enabling over 19%/21% efficiency in inverted/regular perovskite solar cells. Chemical Engineering Journal, 2021, 421, 129823.	6.6	25
61	Fused or unfused? Two-dimensional non-fullerene acceptors for efficient organic solar cells. Journal of Materials Chemistry A, 2021, 9, 2319-2324.	5.2	24
62	An Areneâˆ'Mercury(II) N-Heterocyclic Carbene Complex. Organometallics, 2009, 28, 5590-5592.	1.1	23
63	Recent progress of dopant-free organic hole-transporting materials in perovskite solar cells. Journal of Semiconductors, 2017, 38, 011005.	2.0	22
64	CsPbI₃-Based Phase-Stable 2D Ruddlesdenâ€"Popper Perovskites for Efficient Solar Cells. Nano Letters, 2022, 22, 2874-2880.	4.5	22
65	Integrated Quasiâ€2D Perovskite/Organic Solar Cells with Efficiency over 19% Promoted by Interface Passivation. Advanced Functional Materials, 2021, 31, 2107129.	7.8	20
66	Impact of fluorinated end groups on the properties of acceptorâ€"donorâ€"acceptor type oligothiophenes for solution-processed photovoltaic cells. Journal of Materials Chemistry C, 2014, 2, 1337-1345.	2.7	19
67	Ultra-narrow bandgap non-fullerene acceptors for organic solar cells with low energy loss. Materials Chemistry Frontiers, 2019, 3, 2157-2163.	3.2	19
68	Centralâ€Core Engineering of Dopantâ€Free Hole Transport Materials for Efficient nâ€iâ€p Structured Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100184.	3.1	14
69	Synthesis and Photovoltaic Properties of a Poly(2,7â€carbazole) Derivative Based on Dithienosilole and Benzothiadiazole. Macromolecular Chemistry and Physics, 2011, 212, 1109-1114.	1.1	11
70	Organic radicals based on phenalenyl and verdazyl units. Tetrahedron Letters, 2011, 52, 3670-3673.	0.7	11
71	Synthesis of New Conjugated CNPPV Derivatives Containing Different Lengths of Oligothiophene Units for Organic Solar Cells. Macromolecular Chemistry and Physics, 2010, 211, 2503-2509.	1.1	7
72	Isothianaphtheneâ€Based Conjugated Polymers for Organic Photovoltaic Cells. Macromolecular Chemistry and Physics, 2012, 213, 1596-1603.	1.1	7

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73	Bromination of Isothianaphthene Derivatives towards the Application in Organic Electronics. Chinese Journal of Chemistry, 2013, 31, 1391-1396.	2.6	5
74	9,10-Bis[3-(2-pyridylmethyl)imidazolium-1-ylmethyl]anthracene bis(hexafluorophosphate). Acta Crystallographica Section E: Structure Reports Online, 2005, 61, o2930-o2931.	0.2	2
75	Synthesis and properties of copolymers based on 5,6-dinitrobenzothiadiazole with low band gap and broad absorption spectra. Science China Chemistry, 2011, 54, 617-624.	4.2	1
76	Integrated Optoelectronics: Integrated Perovskite/Bulkâ€Heterojunction Organic Solar Cells (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	11.1	0
77	Recent progress of noncovalent interactions-based nonfullerene acceptor photovoltaic materials. Scientia Sinica Chimica, 2019, 49, 716-728.	0.2	0