Letian Dou

List of Publications by Year in Descending Order

85 papers	17,812 citations	43 h-index	95 g-index
95 ext. papers	19,694 ext. citations	16.3 avg, IF	6.77 L-index

#	Paper	IF	Citations
85	Electronic and Spintronic Open-Shell Macromolecules, ?. *Journal of the American Chemical Society*, **2022**,	16.4	8
84	Organic semiconductor-incorporated two-dimensional halide perovskites.. *National Science Review*, **2022**, 9, nwab111	10.8	3
83	Halide Perovskites for Photonics and Optoelectronics: introduction to special issue. *Optical Materials Express*, **2022**, 12, 1764	2.6	
82	Anion diffusion in two-dimensional halide perovskites. *APL Materials*, **2022**, 10, 040903	5.7	1
81	A selenophene-containing conjugated organic ligand for two-dimensional halide perovskites. *Chemical Communications*, **2021**, 57, 11469-11472	5.8	1
80	Near-infrared Materials: The Turning Point of Organic Photovoltaics. *Advanced Materials*, **2021**, e2107330	24	13
79	Field-assisted growth of one-dimensional ZnO nanostructures with high defect density. *Nanotechnology*, **2021**, 32, 095603	3.4	3
78	Highly Efficient Halide Perovskite Light-Emitting Diodes via Molecular Passivation. *Angewandte Chemie*, **2021**, 133, 8418-8424	3.6	2
77	Highly Efficient Halide Perovskite Light-Emitting Diodes via Molecular Passivation. *Angewandte Chemie - International Edition*, **2021**, 60, 8337-8343	16.4	21
76	Lead-Free Organic-Perovskite Hybrid Quantum Wells for Highly Stable Light-Emitting Diodes. *ACS Nano*, **2021**, 15, 6316-6325	16.7	28
75	Formation of liquid phase and nanostructures in flash sintered ZnO. *Scripta Materialia*, **2021**, 195, 113719	5.6	2
74	Two-dimensional halide perovskite quantum-well emitters: A critical review. *EcoMat*, **2021**, 3, e12104	9.4	8
73	Multifunctional Conjugated Ligand Engineering for Stable and Efficient Perovskite Solar Cells. *Advanced Materials*, **2021**, 33, e2100791	24	35
72	Understanding phase transition dynamics paves the way to halide perovskites nanoelectronics. *MRS Bulletin*, **2021**, 46, 317-318	3.2	
71	Mechanically robust and self-healable perovskite solar cells. *Cell Reports Physical Science*, **2021**, 2, 100320	6.1	12
70	Organic Cation Engineering for Vertical Charge Transport in Lead-Free Perovskite Quantum Wells. *Small Science*, **2021**, 1, 2000024		5
69	Layer-by-layer anionic diffusion in two-dimensional halide perovskite vertical heterostructures. *Nature Nanotechnology*, **2021**, 16, 584-591	28.7	36

68	Designing artificial two-dimensional landscapes via atomic-layer substitution. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	9
67	Ligand-Driven Grain Engineering of High Mobility Two-Dimensional Perovskite Thin-Film Transistors. *Journal of the American Chemical Society*, **2021**, 143, 15215-15223	16.4	14
66	Thermoelectric Performance of Lead-Free Two-Dimensional Halide Perovskites Featuring Conjugated Ligands. *Nano Letters*, **2021**, 21, 7839-7844	11.5	8
65	Two-dimensional halide perovskites featuring semiconducting organic building blocks. *Materials Chemistry Frontiers*, **2020**, 4, 3400-3418	7.8	25
64	Lead halide perovskite nanowires stabilized by block copolymers for Langmuir-Blodgett assembly. *Nano Research*, **2020**, 13, 1453-1458	10	16
63	Large-Scale Plasmonic Hybrid Framework with Built-In Nanohole Array as Multifunctional Optical Sensing Platforms. *Small*, **2020**, 16, e1906459	11	8
62	Long-lived charge separation in two-dimensional ligand-perovskite heterostructures. *Journal of Chemical Physics*, **2020**, 152, 044711	3.9	16
61	Long-range exciton transport and slow annihilation in two-dimensional hybrid perovskites. *Nature Communications*, **2020**, 11, 664	17.4	90
60	Two-dimensional halide perovskite lateral epitaxial heterostructures. *Nature*, **2020**, 580, 614-620	50.4	142
59	Structural Damage of Two-Dimensional Organic□Inorganic Halide Perovskites. *Inorganics*, **2020**, 8, 13	2.9	2
58	Halide Perovskite Epitaxial Heterostructures. *Accounts of Materials Research*, **2020**, 1, 213-224	7.5	8
57	Structural Tunability and Diversity of Two-Dimensional Lead Halide Benzenethiolate. *Chemistry - A European Journal*, **2020**, 26, 6599-6607	4.8	1
56	Highly Stable Lead-Free Perovskite Field-Effect Transistors Incorporating Linear □Conjugated Organic Ligands. *Journal of the American Chemical Society*, **2019**, 141, 15577-15585	16.4	105
55	Extrinsic and Dynamic Edge States of Two-Dimensional Lead Halide Perovskites. *ACS Nano*, **2019**, 13, 1635-1644	16.7	62
54	A Leap towards High-Performance 2D Perovskite Photodetectors. *Trends in Chemistry*, **2019**, 1, 365-367	14.8	9
53	Additive manufacturing of patterned 2D semiconductor through recyclable masked growth. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 3437-3442	11.5	25
52	4D-STEM Characterization of Molecular Ordering in Organic Semiconductors. *Microscopy and Microanalysis*, **2019**, 25, 1752-1753	0.5	
51	Molecular engineering of organic-inorganic hybrid perovskites quantum wells. *Nature Chemistry*, **2019**, 11, 1151-1157	17.6	160

50	Thermochromic halide perovskite solar cells. *Nature Materials*, **2018**, 17, 261-267	27	436
49	Two-dimensional halide perovskite nanomaterials and heterostructures. *Chemical Society Reviews*, **2018**, 47, 6046-6072	58.5	244
48	Intrinsic anion diffusivity in lead halide perovskites is facilitated by a soft lattice. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 11929-11934	11.5	108
47	Electrical and Optical Tunability in All-Inorganic Halide Perovskite Alloy Nanowires. *Nano Letters*, **2018**, 18, 3538-3542	11.5	38
46	Benzoin Radicals as Reducing Agent for Synthesizing Ultrathin Copper Nanowires. *Journal of the American Chemical Society*, **2017**, 139, 3027-3032	16.4	36
45	Structural, optical, and electrical properties of phase-controlled cesium lead iodide nanowires. *Nano Research*, **2017**, 10, 1107-1114	10	101
44	Ultrathin Epitaxial Cu@Au Core-Shell Nanowires for Stable Transparent Conductors. *Journal of the American Chemical Society*, **2017**, 139, 7348-7354	16.4	87
43	Bandgap engineering in semiconductor alloy nanomaterials with widely tunable compositions. *Nature Reviews Materials*, **2017**, 2,	73.3	195
42	Emerging two-dimensional halide perovskite nanomaterials. *Journal of Materials Chemistry C*, **2017**, 5, 11165-11173	7.1	53
41	Spatially resolved multicolor CsPbX nanowire heterojunctions via anion exchange. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 7216-7221	11.5	134
40	Room-Temperature Coherent Optical Phonon in 2D Electronic Spectra of CHNHPbI Perovskite as a Possible Cooling Bottleneck. *Journal of Physical Chemistry Letters*, **2017**, 8, 3211-3215	6.4	59
39	Atomic Resolution Imaging of Halide Perovskites. *Nano Letters*, **2016**, 16, 7530-7535	11.5	97
38	Solution-Processed Copper/Reduced-Graphene-Oxide Core/Shell Nanowire Transparent Conductors. *ACS Nano*, **2016**, 10, 2600-6	16.7	128
37	Lasing in robust cesium lead halide perovskite nanowires. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 1993-8	11.5	551
36	Growth and Anion Exchange Conversion of CH3NH3PbX3 Nanorod Arrays for Light-Emitting Diodes. *Nano Letters*, **2015**, 15, 5519-24	11.5	296
35	Solution-Phase Synthesis of Cesium Lead Halide Perovskite Nanowires. *Journal of the American Chemical Society*, **2015**, 137, 9230-3	16.4	727
34	A dopant-free organic hole transport material for efficient planar heterojunction perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 11940-11947	13	182
33	Tandem Solar Cell Concept and Practice in Organic Solar Cells. *Topics in Applied Physics*, **2015**, 315-346	0.5	6

32	Atomically thin two-dimensional organic-inorganic hybrid perovskites. *Science*, **2015**, 349, 1518-21	33.3	959
31	Synthesis of Ultrathin Copper Nanowires Using Tris(trimethylsilyl)silane for High-Performance and Low-Haze Transparent Conductors. *Nano Letters*, **2015**, 15, 7610-5	11.5	145
30	Low-Bandgap Near-IR Conjugated Polymers/Molecules for Organic Electronics. *Chemical Reviews*, **2015**, 115, 12633-65	68.1	863
29	High-performance multiple-donor bulk heterojunction solar cells. *Nature Photonics*, **2015**, 9, 190-198	33.9	440
28	A Selenophene Containing Benzodithiophene-alt-thienothiophene Polymer for Additive-Free High Performance Solar Cell. *Macromolecules*, **2015**, 48, 562-568	5.5	52
27	Single-crystal linear polymers through visible light-triggered topochemical quantitative polymerization. *Science*, **2014**, 343, 272-7	33.3	90
26	Solution-processed hybrid perovskite photodetectors with high detectivity. *Nature Communications* , **2014**, 5, 5404	17.4	1749
25	Side-Chain Tunability via Triple Component Random Copolymerization for Better Photovoltaic Polymers. *Advanced Energy Materials*, **2014**, 4, 1300864	21.8	76
24	Controllable self-induced passivation of hybrid lead iodide perovskites toward high performance solar cells. *Nano Letters*, **2014**, 14, 4158-63	11.5	1143
23	Improving Structural Order for a High-Performance Diketopyrrolopyrrole-Based Polymer Solar Cell with a Thick Active Layer. *Advanced Energy Materials*, **2014**, 4, 1300739	21.8	39
22	Elucidating double aggregation mechanisms in the morphology optimization of diketopyrrolopyrrole-based narrow bandgap polymer solar cells. *Advanced Materials*, **2014**, 26, 3142-7	24	47
21	A selenium-substituted low-bandgap polymer with versatile photovoltaic applications. *Advanced Materials*, **2013**, 25, 825-31	24	370
20	High-performance semi-transparent polymer solar cells possessing tandem structures. *Energy and Environmental Science*, **2013**, 6, 2714	35.4	154
19	Solution-processed small-molecule solar cells: breaking the 10% power conversion efficiency. *Scientific Reports*, **2013**, 3, 3356	4.9	511
18	25th anniversary article: a decade of organic/polymeric photovoltaic research. *Advanced Materials*, **2013**, 25, 6642-71	24	978
17	A polymer tandem solar cell with 10.6% power conversion efficiency. *Nature Communications*, **2013**, 4, 1446	17.4	2456
16	Recent trends in polymer tandem solar cells research. *Progress in Polymer Science*, **2013**, 38, 1909-1928	29.6	232
15	Synthesis of 5H-Dithieno[3,2-b:2?,3?-d]pyran as an Electron-Rich Building Block for Donor�Acceptor Type Low-Bandgap Polymers. *Macromolecules*, **2013**, 46, 4734-4734	5.5	7

14	Active layer-incorporated, spectrally tuned Au/SiO2 core/shell nanorod-based light trapping for organic photovoltaics. *ACS Nano*, **2013**, 7, 3815-22	16.7	124
13	Solution-processed small molecules using different electron linkers for high-performance solar cells. *Advanced Materials*, **2013**, 25, 4657-62	24	92
12	Synthesis of 5H-Dithieno[3,2-b:2?,3?-d]pyran as an Electron-Rich Building Block for Donor–Acceptor Type Low-Bandgap Polymers. *Macromolecules*, **2013**, 46, 3384-3390	5.5	273
11	High performance low band gap polymer solar cells with a non-conventional acceptor. *Chemical Communications*, **2012**, 48, 7616-8	5.8	31
10	Systematic investigation of benzodithiophene- and diketopyrrolopyrrole-based low-bandgap polymers designed for single junction and tandem polymer solar cells. *Journal of the American Chemical Society*, **2012**, 134, 10071-9	16.4	504
9	Tandem polymer solar cells featuring a spectrally matched low-bandgap polymer. *Nature Photonics*, **2012**, 6, 180-185	33.9	1299
8	Visibly transparent polymer solar cells produced by solution processing. *ACS Nano*, **2012**, 6, 7185-90	16.7	434
7	Novel fullerene acceptors: synthesis and application in low band gap polymer solar cells. *Journal of Materials Chemistry*, **2012**, 22, 13391		30
6	Metal oxide nanoparticles as an electron-transport layer in high-performance and stable inverted polymer solar cells. *Advanced Materials*, **2012**, 24, 5267-72	24	299
5	Plastic solar cells: breaking the 10% commercialization barrier **2012**,		5
4	Synthesis and characterization of a novel kind of near-infrared electrochromic polymers containing an anthraquinone imide group and ionic moieties. *Journal of Materials Chemistry*, **2009**, 19, 8470		27
3	Tailoring Anchoring Groups in Low-Dimensional Organic Semiconductor-Incorporated Perovskites. *Small Structures*,2100173	8.7	2
2	Understanding phase transition dynamics paves the way to halide perovskites nanoelectronics. *MRS Bulletin*,1-2	3.2	
1	Quantifying Anionic Diffusion in 2D Halide Perovskite Lateral Heterostructures. *Advanced Materials*,2105183	24	10