

Liyuan Han

List of Publications by Year in descending order

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334
papers

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340
docs citations

340
times ranked

19444
citing authors

#	ARTICLE	IF	CITATIONS
1	Efficient and stable large-area perovskite solar cells with inorganic charge extraction layers. <i>Science</i> , 2015, 350, 944-948.	6.0	2,007
2	Dye-Sensitized Solar Cells with Conversion Efficiency of 11.1%. <i>Japanese Journal of Applied Physics</i> , 2006, 45, L638-L640.	0.8	1,761
3	Retarding the crystallization of PbI_2 for highly reproducible planar-structured perovskite solar cells via sequential deposition. <i>Energy and Environmental Science</i> , 2014, 7, 2934-2938.	15.6	807
4	A dopant-free hole-transporting material for efficient and stable perovskite solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 2963-2967.	15.6	668
5	High-efficiency dye-sensitized solar cell with a novel co-adsorbent. <i>Energy and Environmental Science</i> , 2012, 5, 6057.	15.6	655
6	A solvent- and vacuum-free route to large-area perovskite films for efficient solar modules. <i>Nature</i> , 2017, 550, 92-95.	13.7	618
7	Highly efficient dye-sensitized solar cells: progress and future challenges. <i>Energy and Environmental Science</i> , 2013, 6, 1443.	15.6	596
8	Modeling of an equivalent circuit for dye-sensitized solar cells. <i>Applied Physics Letters</i> , 2004, 84, 2433-2435.	1.5	583
9	First-Principles Study of Ion Diffusion in Perovskite Solar Cell Sensitizers. <i>Journal of the American Chemical Society</i> , 2015, 137, 10048-10051.	6.6	582
10	Perovskite solar cells with 18.21% efficiency and area over 1 cm^2 fabricated by heterojunction engineering. <i>Nature Energy</i> , 2016, 1, .	19.8	555
11	Thermally Stable MAPbI_3 Perovskite Solar Cells with Efficiency of 19.19% and Area over 1 cm^2 achieved by Additive Engineering. <i>Advanced Materials</i> , 2017, 29, 1701073.	11.1	541
12	Stabilizing heterostructures of soft perovskite semiconductors. <i>Science</i> , 2019, 365, 687-691.	6.0	447
13	Space Charge Layer Effect at Interface between Oxide Cathode and Sulfide Electrolyte in All-Solid-State Lithium-Ion Battery. <i>Chemistry of Materials</i> , 2014, 26, 4248-4255.	3.2	426
14	Vertical recrystallization for highly efficient and stable formamidinium-based inverted-structure perovskite solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 1942-1949.	15.6	402
15	Improvement of efficiency of dye-sensitized solar cells based on analysis of equivalent circuit. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2006, 182, 296-305.	2.0	386
16	Diffusion engineering of ions and charge carriers for stable efficient perovskite solar cells. <i>Nature Communications</i> , 2017, 8, 15330.	5.8	356
17	Cost-Performance Analysis of Perovskite Solar Modules. <i>Advanced Science</i> , 2017, 4, 1600269.	5.6	345
18	Termination Dependence of Tetragonal $\text{CH}_3\text{NH}_3\text{PbI}_3$ Surfaces for Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2903-2909.	2.1	320

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19	Improvement of efficiency of dye-sensitized solar cells by reduction of internal resistance. <i>Applied Physics Letters</i> , 2005, 86, 213501.	1.5	318
20	Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. <i>Energy and Environmental Science</i> , 2015, 8, 629-640.	15.6	285
21	Efficient Defect Passivation for Perovskite Solar Cells by Controlling the Electron Density Distribution of Donor-Acceptor Molecules. <i>Advanced Energy Materials</i> , 2019, 9, 1803766.	10.2	280
22	Highly Stable and Efficient FASn ₃ -Based Perovskite Solar Cells by Introducing Hydrogen Bonding. <i>Advanced Materials</i> , 2019, 31, e1903721.	11.1	266
23	The Main Progress of Perovskite Solar Cells in 2020-2021. <i>Nano-Micro Letters</i> , 2021, 13, 152.	14.4	250
24	Colloidal quantum dot solar cells. <i>Solar Energy</i> , 2011, 85, 1264-1282.	2.9	246
25	Efficient and Stable Chemical Passivation on Perovskite Surface via Bidentate Anchoring. <i>Advanced Energy Materials</i> , 2019, 9, 1803573.	10.2	232
26	A novel A'-A organic sensitizer containing a diketopyrrolopyrrole unit with a branched alkyl chain for highly efficient and stable dye-sensitized solar cells. <i>Chemical Communications</i> , 2012, 48, 6972.	2.2	229
27	A chemically inert bismuth interlayer enhances long-term stability of inverted perovskite solar cells. <i>Nature Communications</i> , 2019, 10, 1161.	5.8	225
28	Efficiency progress of inverted perovskite solar cells. <i>Energy and Environmental Science</i> , 2020, 13, 3823-3847.	15.6	210
29	High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 1903487.	10.2	210
30	Efficient and Stable CsPbI ₃ Solar Cells via Regulating Lattice Distortion with Surface Organic Terminal Groups. <i>Advanced Materials</i> , 2019, 31, e1900605.	11.1	209
31	Surface-Controlled Oriented Growth of FASnI ₃ Crystals for Efficient Lead-free Perovskite Solar Cells. <i>Joule</i> , 2020, 4, 902-912.	11.7	208
32	Modeling of an equivalent circuit for dye-sensitized solar cells: improvement of efficiency of dye-sensitized solar cells by reducing internal resistance. <i>Comptes Rendus Chimie</i> , 2006, 9, 645-651.	0.2	206
33	Highly compact TiO ₂ layer for efficient hole-blocking in perovskite solar cells. <i>Applied Physics Express</i> , 2014, 7, 052301.	1.1	199
34	In Situ Grain Boundary Functionalization for Stable and Efficient Inorganic CsPbI ₂ Br Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1801050.	10.2	195
35	Constructing High-Efficiency A'-A-Featured Solar Cell Sensitizers: a Promising Building Block of 2,3-Diphenylquinoxaline for Antiaggregation and Photostability. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 4986-4995.	4.0	187
36	Efficient Passivation of Hybrid Perovskite Solar Cells Using Organic Dyes with -COOH Functional Group. <i>Advanced Energy Materials</i> , 2018, 8, 1800715.	10.2	187

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37	A quasi core-shell nitrogen-doped graphene/cobalt sulfide conductive catalyst for highly efficient dye-sensitized solar cells. <i>Energy and Environmental Science</i> , 2014, 7, 2637-2641.	15.6	185
38	Soft-cover deposition of scaling-up uniform perovskite thin films for high cost-performance solar cells. <i>Energy and Environmental Science</i> , 2016, 9, 2295-2301.	15.6	173
39	Efficient Perovskite Solar Cell Modules with High Stability Enabled by Iodide Diffusion Barriers. <i>Joule</i> , 2019, 3, 2748-2760.	11.7	167
40	Templated growth of FASn_3 crystals for efficient tin perovskite solar cells. <i>Energy and Environmental Science</i> , 2020, 13, 2896-2902.	15.6	165
41	Slot-die coating large-area formamidinium-cesium perovskite film for efficient and stable parallel solar module. <i>Science Advances</i> , 2021, 7, .	4.7	165
42	Conversion efficiency of 10.8% by a dye-sensitized solar cell using a TiO_2 electrode with high haze. <i>Applied Physics Letters</i> , 2006, 88, 223505.	1.5	163
43	n-Type Doping and Energy States Tuning in $\text{CH}_3\text{NH}_3\text{PbI}_3\text{Sb}_2\text{I}_3$ Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2016, 1, 535-541.	8.8	160
44	Efficient and stable tin-based perovskite solar cells by introducing π -conjugated Lewis base. <i>Science China Chemistry</i> , 2020, 63, 107-115.	4.2	160
45	Pb -Reduced $\text{CsPb}_{0.9}\text{Zn}_{0.1}\text{I}_2\text{Br}$ Thin Films for Efficient Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1900896.	10.2	150
46	Enhanced Stability of Perovskite Solar Cells through Corrosion-Free Pyridine Derivatives in Hole-Transporting Materials. <i>Advanced Materials</i> , 2016, 28, 10738-10743.	11.1	147
47	Surface Properties of $\text{CH}_3\text{NH}_3\text{PbI}_3$ for Perovskite Solar Cells. <i>Accounts of Chemical Research</i> , 2016, 49, 554-561.	7.6	145
48	Efficient and stable tin perovskite solar cells enabled by amorphous-polycrystalline structure. <i>Nature Communications</i> , 2020, 11, 2678.	5.8	143
49	High-Quality Mixed-Organic Cation Perovskites from a Phase-Pure Non-Stoichiometric Intermediate (FAI) Pb_2 for Solar Cells. <i>Advanced Materials</i> , 2015, 27, 4918-4923.	11.1	140
50	Control of Electrical Potential Distribution for High-Performance Perovskite Solar Cells. <i>Joule</i> , 2018, 2, 296-306.	11.7	138
51	Effect of Cerium Doping in the TiO_2 Photoanode on the Electron Transport of Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2012, 116, 19182-19190.	1.5	137
52	Bifunctional alkyl chain barriers for efficient perovskite solar cells. <i>Chemical Communications</i> , 2015, 51, 7047-7050.	2.2	135
53	Lead-free tin perovskite solar cells. <i>Joule</i> , 2021, 5, 863-886.	11.7	134
54	Direct Arylation Polycondensation: A Promising Method for the Synthesis of Highly Pure, High-Molecular-Weight Conjugated Polymers Needed for Improving the Performance of Organic Photovoltaics. <i>Advanced Functional Materials</i> , 2014, 24, 3226-3233.	7.8	126

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55	Measuring methods of cell performance of dye-sensitized solar cells. Review of Scientific Instruments, 2004, 75, 2828-2831.	0.6	123
56	Hysteresis-free and highly stable perovskite solar cells produced via a chlorine-mediated interdiffusion method. Journal of Materials Chemistry A, 2015, 3, 12081-12088.	5.2	123
57	Solvent engineering for efficient inverted perovskite solar cells based on inorganic CsPbI ₂ Br light absorber. Materials Today Energy, 2018, 8, 125-133.	2.5	121
58	Review on Practical Interface Engineering of Perovskite Solar Cells: From Efficiency to Stability. Solar Rrl, 2020, 4, 1900257.	3.1	119
59	Stable Inverted Planar Perovskite Solar Cells with Low-Temperature-Processed Hole-Transport Bilayer. Advanced Energy Materials, 2017, 7, 1700763.	10.2	115
60	Highly Reproducible and Efficient FASn ₃ Perovskite Solar Cells Fabricated with Volatilizable Reducing Solvent. Journal of Physical Chemistry Letters, 2020, 11, 2965-2971.	2.1	115
61	Reliable evaluation of dye-sensitized solar cells. Energy and Environmental Science, 2013, 6, 54-66.	15.6	114
62	[6,6]-Phenyl-C ₆₁ -Butyric Acid Methyl Ester/Cerium Oxide Bilayer Structure as Efficient and Stable Electron Transport Layer for Inverted Perovskite Solar Cells. ACS Nano, 2018, 12, 2403-2414.	7.3	114
63	CsPb(I Br) ₃ solar cells. Science Bulletin, 2019, 64, 1532-1539.	4.3	114
64	Squaraine Dyes for Dye-Sensitized Solar Cells: Recent Advances and Future Challenges. Chemistry - an Asian Journal, 2013, 8, 1706-1719.	1.7	113
65	Highly efficient quasi-solid state dye-sensitized solar cell with ion conducting polymer electrolyte. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 164, 123-127.	2.0	110
66	Improving the Performance of Inverted Formamidinium Tin Iodide Perovskite Solar Cells by Reducing the Energy-Level Mismatch. ACS Energy Letters, 2018, 3, 1116-1121.	8.8	105
67	Effect of a redox electrolyte in mixed solvents on the photovoltaic performance of a dye-sensitized solar cell. Solar Energy Materials and Solar Cells, 2006, 90, 649-658.	3.0	103
68	Annealing-free perovskite films by instant crystallization for efficient solar cells. Journal of Materials Chemistry A, 2016, 4, 8548-8553.	5.2	103
69	Novel Carbazole-Phenothiazine Dyads for Dye-Sensitized Solar Cells: A Combined Experimental and Theoretical Study. ACS Applied Materials & Interfaces, 2013, 5, 9635-9647.	4.0	102
70	Integrated dye-sensitized solar cell module with conversion efficiency of 8.2%. Applied Physics Letters, 2009, 94, 013305.	1.5	101
71	Donor-Acceptor Based Stable Porphyrin Sensitizers for Dye-Sensitized Solar Cells: Effect of π -Conjugated Spacers. Journal of Physical Chemistry C, 2017, 121, 6464-6477.	1.5	101
72	Synthesis and Characterization of New Efficient Tricarboxyterpyridyl (β^2 -diketonato) Ruthenium(II) Sensitizers and Their Applications in Dye-Sensitized Solar Cells. Chemistry of Materials, 2006, 18, 5178-5185.	3.2	93

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73	High-Performance, Transparent, Dye-Sensitized Solar Cells for See-Through Photovoltaic Windows. <i>Advanced Energy Materials</i> , 2014, 4, 1301966.	10.2	88
74	Singlet Annihilation in Films of Regioregular Poly(3-hexylthiophene): Estimates for Singlet Diffusion Lengths and the Correlation between Singlet Annihilation Rates and Spectral Relaxation. <i>Journal of Physical Chemistry C</i> , 2010, 114, 10962-10968.	1.5	87
75	Toward Long-Term Stable and Highly Efficient Perovskite Solar Cells via Effective Charge Transporting Materials. <i>Advanced Energy Materials</i> , 2018, 8, 1800249.	10.2	85
76	Highly efficient tin perovskite solar cells achieved in a wide oxygen concentration range. <i>Journal of Materials Chemistry A</i> , 2020, 8, 2760-2768.	5.2	85
77	Ink Engineering of Inkjet Printing Perovskite. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 39082-39091.	4.0	85
78	Barrier Designs in Perovskite Solar Cells for Long-Term Stability. <i>Advanced Energy Materials</i> , 2020, 10, 2001610.	10.2	84
79	Influence of TiCl ₄ treatment on back contact dye-sensitized solar cells sensitized with black dye. <i>Energy and Environmental Science</i> , 2009, 2, 1205.	15.6	83
80	Enhanced Light-Harvesting Capability of a Panchromatic Ru(II) Sensitizer Based on π -Extended Terpyridine with a 4-Methylstyryl Group for Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , 2013, 23, 1817-1823.	7.8	82
81	Novel Near-Infrared Squaraine Sensitizers for Stable and Efficient Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , 2014, 24, 3059-3066.	7.8	77
82	Estimate of singlet diffusion lengths in PCBM films by time-resolved emission studies. <i>Chemical Physics Letters</i> , 2009, 478, 33-36.	1.2	76
83	Aggregation-free branch-type organic dye with a twisted molecular architecture for dye-sensitized solar cells. <i>Energy and Environmental Science</i> , 2012, 5, 8548.	15.6	76
84	Rigid triarylamine-based efficient DSSC sensitizers with high molar extinction coefficients. <i>Journal of Materials Chemistry A</i> , 2013, 1, 4763.	5.2	76
85	Improvement of spectral response by co-sensitizers for high efficiency dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 4812.	5.2	76
86	Photoinduced electron injection in black dye sensitized nanocrystalline TiO ₂ films. <i>Journal of Materials Chemistry</i> , 2007, 17, 3190.	6.7	75
87	A novel carbazole-based dye outperformed the benchmark dye N719 for high efficiency dye-sensitized solar cells (DSSCs). <i>Journal of Materials Chemistry</i> , 2012, 22, 24048.	6.7	74
88	Low-Temperature Soft-Cover Deposition of Uniform Large-Scale Perovskite Films for High-Performance Solar Cells. <i>Advanced Materials</i> , 2017, 29, 1701440.	11.1	74
89	Charge-Carrier Transport in Quasi-2D Ruddlesden-Popper Perovskite Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2106822.	11.1	74
90	Dye-Sensitized Solar Cells Based on Quinoxaline Dyes: Effect of π -Linker on Absorption, Energy Levels, and Photovoltaic Performances. <i>Journal of Physical Chemistry C</i> , 2014, 118, 16552-16561.	1.5	72

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91	In situ growth of graphene on both sides of a Cu–Ni alloy electrode for perovskite solar cells with improved stability. <i>Nature Energy</i> , 2022, 7, 520-527.	19.8	68
92	New Approach to Low-Cost Dye-Sensitized Solar Cells With Back Contact Electrodes. <i>Chemistry of Materials</i> , 2008, 20, 4974-4979.	3.2	67
93	Effective Passivation with Self-Organized Molecules for Perovskite Photovoltaics. <i>Advanced Materials</i> , 2022, 34, e2202100.	11.1	67
94	Carbazole based A–D–A dyes with double electron acceptor for dye-sensitized solar cell. <i>Organic Electronics</i> , 2014, 15, 266-275.	1.4	65
95	A novel metal-free panchromatic TiO ₂ sensitizer based on a phenylenevinylene-conjugated unit and an indoline derivative for highly efficient dye-sensitized solar cells. <i>Chemical Communications</i> , 2011, 47, 12400.	2.2	64
96	Incorporating a stable fluorenone unit into D–A–A'–A organic dyes for dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 19236.	6.7	64
97	Extrinsic Movable Ions in MAPbI ₃ Modulate Energy Band Alignment in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1701981.	10.2	62
98	Reliable Measurement of Perovskite Solar Cells. <i>Advanced Materials</i> , 2019, 31, e1803231.	11.1	62
99	Crystal-array-assisted growth of a perovskite absorption layer for efficient and stable solar cells. <i>Energy and Environmental Science</i> , 2022, 15, 1078-1085.	15.6	62
100	Enhanced Photovoltaic Performances of Dye-Sensitized Solar Cells by Co-Sensitization of Benzothiadiazole and Squaraine-Based Dyes. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 4616-4623.	4.0	61
101	Tuning the Photovoltaic Performance of Benzocarbazole-Based Sensitizers for Dye-Sensitized Solar Cells: A Joint Experimental and Theoretical Study of the Influence of –Spacers. <i>Journal of Physical Chemistry C</i> , 2015, 119, 17053-17064.	1.5	60
102	A comparative study of o,p-dimethoxyphenyl-based hole transport materials by altering –linker units for highly efficient and stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 10480-10485.	5.2	60
103	A Near-Infrared <i>cis</i> -Configured Squaraine Co-Sensitizer for High-Efficiency Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , 2013, 23, 3782-3789.	7.8	59
104	Interfacial engineering for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 5167.	5.2	59
105	Panchromatic Donor–Acceptor–Donor Conjugated Oligomers for Dye-Sensitized Solar Cell Applications. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 8715-8722.	4.0	59
106	Ligand-Free, Highly Dispersed NiO _x Nanocrystal for Efficient, Stable, Low-Temperature Processable Perovskite Solar Cells. <i>Solar Rrl</i> , 2018, 2, 1800004.	3.1	58
107	Inorganic and Lead-Free AgBiI ₄ Rudorffite for Stable Solar Cell Applications. <i>ACS Applied Energy Materials</i> , 2018, 1, 4485-4492.	2.5	58
108	Two-dimensional perovskites: Impacts of species, components, and properties of organic spacers on solar cells. <i>Nano Today</i> , 2022, 43, 101394.	6.2	58

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109	Influence of TiO ₂ /electrode interface on electron transport properties in back contact dye-sensitized solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2009, 93, 720-724.	3.0	57
110	Making Room for Growing Oriented FASn ₃ with Large Grains via Cold Precursor Solution. <i>Advanced Functional Materials</i> , 2021, 31, 2100931.	7.8	57
111	Preparation of donor-acceptor type organic dyes bearing various electron-withdrawing groups for dye-sensitized solar cell application. <i>Chemical Communications</i> , 2011, 47, 6159.	2.2	56
112	Novel design of organic donor-acceptor dyes without carboxylic acid anchoring groups for dye-sensitized solar cells. <i>Journal of Materials Chemistry C</i> , 2014, 2, 3367.	2.7	56
113	Zinc ion as effective film morphology controller in perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2018, 2, 1093-1100.	2.5	55
114	Efficient and Stable Tin Perovskite Solar Cells Enabled by Graded Heterostructure of Light-Absorbing Layer. <i>Solar Rrl</i> , 2020, 4, 2000240.	3.1	53
115	Crystallization kinetics modulation and defect suppression of all-inorganic CsPbX ₃ perovskite films. <i>Energy and Environmental Science</i> , 2022, 15, 413-438.	15.6	53
116	Back Contact Dye-Sensitized Solar Cells. <i>Japanese Journal of Applied Physics</i> , 2007, 46, L420-L422.	0.8	49
117	Influence of Number of Benzodioxan-Stilbazole-based Ancillary Ligands on Dye Packing, Photovoltage and Photocurrent in Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 11617-11624.	4.0	49
118	Protonated Carboxyl Anchor for Stable Adsorption of Ru N749 Dye (Black Dye) on a TiO ₂ Anatase (101) Surface. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 472-477.	2.1	48
119	Thiocyanate-free cyclometalated ruthenium(ii) sensitizers for DSSC: A combined experimental and theoretical investigation. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 2630.	1.3	48
120	Molecular Engineering of New Thienyl-Bodipy Dyes for Highly Efficient Panchromatic Sensitized Solar Cells. <i>Advanced Energy Materials</i> , 2014, 4, 1400085.	10.2	47
121	Fullerene-Structured MoSe ₂ Hollow Spheres Anchored on Highly Nitrogen-Doped Graphene as a Conductive Catalyst for Photovoltaic Applications. <i>Scientific Reports</i> , 2015, 5, 13214.	1.6	46
122	Robust hole transport material with interface anchors enhances the efficiency and stability of inverted formamidinium-cesium perovskite solar cells with a certified efficiency of 22.3%. <i>Energy and Environmental Science</i> , 2022, 15, 2567-2580.	15.6	46
123	Scanning Tunneling Microscopy Study of Black Dye and Deoxycholic Acid Adsorbed on a Rutile TiO ₂ (110). <i>Langmuir</i> , 2008, 24, 8056-8060.	1.6	45
124	Donor-acceptor dyes incorporating a stable dibenzosilole π -conjugated spacer for dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 10771.	6.7	45
125	Structure-property relationship of extended π -conjugation of ancillary ligands with and without an electron donor of heteroleptic Ru(ii) bipyridyl complexes for high efficiency dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 8401.	1.3	44
126	Co-sensitization of amphiphilic ruthenium (II) sensitizer with a metal free organic dye: Improved photovoltaic performance of dye sensitized solar cells. <i>Organic Electronics</i> , 2013, 14, 1237-1241.	1.4	43

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127	Novel core-shell TiO ₂ microsphere scattering layer for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2014, 2, 1502-1508.	5.2	43
128	Consecutive Morphology Controlling Operations for Highly Reproducible Mesostructured Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 20707-20713.	4.0	43
129	Effects of A site doping on the crystallization of perovskite films. <i>Journal of Materials Chemistry A</i> , 2021, 9, 1372-1394.	5.2	43
130	A Scalable Integrated Dopant-Free Heterostructure to Stabilize Perovskite Solar Cell Modules. <i>Advanced Energy Materials</i> , 2021, 11, 2003301.	10.2	43
131	Defect Passivation for Perovskite Solar Cells: from Molecule Design to Device Performance. <i>ChemSusChem</i> , 2021, 14, 4354-4376.	3.6	43
132	Heterogeneous FASn ₃ Absorber with Enhanced Electric Field for High-Performance Lead-Free Perovskite Solar Cells. <i>Nano-Micro Letters</i> , 2022, 14, 99.	14.4	43
133	Design of Low Bandgap CsPb ⁺ _x Sn _x I ₂ Br Perovskite Solar Cells with Excellent Phase Stability. <i>Small</i> , 2021, 17, e2101380.	5.2	42
134	More stable and more efficient alternatives of Z-907: carbazole-based amphiphilic Ru(<i>scp</i>) sensitizers for dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 27078-27087.	1.3	41
135	Effects of various π -conjugated spacers in thiadiazole[3,4-c]pyridine-cored panchromatic organic dyes for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2015, 3, 3103-3112.	5.2	41
136	Near-infrared squaraine co-sensitizer for high-efficiency dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 14279-14285.	1.3	41
137	Synergistic Coassembly of Highly Wettable and Uniform Hole-Extraction Monolayers for Scaling Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2020, 30, 1909509.	7.8	41
138	Hexagonal TiO ₂ microplates with superior light scattering for dye-sensitized solar cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 20773.	6.7	40
139	Two-step direct arylation for synthesis of naphthalenediimide-based conjugated polymer. <i>Journal of Polymer Science Part A</i> , 2014, 52, 1401-1407.	2.5	40
140	Structure-property relationship of naphthalene based donor-acceptor organic dyes for dye-sensitized solar cells: remarkable improvement of open-circuit photovoltage. <i>Journal of Materials Chemistry</i> , 2012, 22, 22550.	6.7	39
141	Circle chain embracing donor-acceptor organic dye: simultaneous improvement of photocurrent and photovoltage for dye-sensitized solar cells. <i>Chemical Communications</i> , 2013, 49, 7587.	2.2	38
142	Sustainable Pb Management in Perovskite Solar Cells toward Eco-Friendly Development. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	38
143	Tuning the Electrical and Optical Properties of Diketopyrrolopyrrole Complexes for Panchromatic Dye-Sensitized Solar Cells. <i>Chemistry - an Asian Journal</i> , 2012, 7, 2895-2903.	1.7	37
144	Progress of all-perovskite tandem solar cells: the role of narrow-bandgap absorbers. <i>Science China Chemistry</i> , 2021, 64, 218-227.	4.2	37

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145	Ruthenium(II) Tricarboxyterpyridyl Complex with a Fluorine-substituted β^2 -Diketonato Ligand for Highly Efficient Dye-sensitized Solar Cells. <i>Chemistry Letters</i> , 2005, 34, 344-345.	0.7	36
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