Liyuan Han

List of Publications by Year
in descending order

334 papers	28,061 citations	6613 79 h-index	6300 158 g-index
340 all docs	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. Science, 2015, 350, 944-948.	12.6	2,007
2	Dye-Sensitized Solar Cells with Conversion Efficiency of 11.1%. Japanese Journal of Applied Physics, 2006, 45, L638-L640.	1.5	1,761
3	Retarding the crystallization of PbI₂for highly reproducible planar-structured perovskite solar cells via sequential deposition. Energy and Environmental Science, 2014, 7, 2934-2938.	30.8	807
4	A dopant-free hole-transporting material for efficient and stable perovskite solar cells. Energy and Environmental Science, 2014, 7, 2963-2967.	30.8	668
5	High-efficiency dye-sensitized solar cell with a novel co-adsorbent. Energy and Environmental Science, 2012, 5, 6057.	30.8	655
6	A solvent- and vacuum-free route to large-area perovskite films for efficient solar modules. Nature, 2017, 550, 92-95.	27.8	618
7	Highly efficient dye-sensitized solar cells: progress and future challenges. Energy and Environmental Science, 2013, 6, 1443.	30.8	596
8	Modeling of an equivalent circuit for dye-sensitized solar cells. Applied Physics Letters, 2004, 84, 2433-2435.	3.3	583
9	First-Principles Study of Ion Diffusion in Perovskite Solar Cell Sensitizers. Journal of the American Chemical Society, 2015, 137, 10048-10051.	13.7	582
10	Perovskite solar cells with 18.21% efficiency andÂarea over 1â€‰cm2 fabricated by heterojunctionÂengineering. Nature Energy, 2016, 1, .	39.5	555
11	Thermally Stable MAPbI₃ Perovskite Solar Cells with Efficiency of 19.19% and Area over 1 cm² achieved by Additive Engineering. Advanced Materials, 2017, 29, 1701073.	21.0	541
12	Stabilizing heterostructures of soft perovskite semiconductors. Science, 2019, 365, 687-691.	12.6	447
13	Spaceâ€“Charge Layer Effect at Interface between Oxide Cathode and Sulfide Electrolyte in All-Solid-State Lithium-Ion Battery. Chemistry of Materials, 2014, 26, 4248-4255.	6.7	426
14	Vertical recrystallization for highly efficient and stable formamidinium-based inverted-structure perovskite solar cells. Energy and Environmental Science, 2017, 10, 1942-1949.	30.8	402
15	Improvement of efficiency of dye-sensitized solar cells based on analysis of equivalent circuit. Journal of Photochemistry and Photobiology A: Chemistry, 2006, 182, 296-305.	3.9	386
16	Diffusion engineering of ions and charge carriers for stable efficient perovskite solar cells. Nature Communications, 2017, 8, 15330.	12.8	356
17	Costâ€Performance Analysis of Perovskite Solar Modules. Advanced Science, 2017, 4, 1600269.	11.2	345
18	Termination Dependence of Tetragonal CH₃NH₃PbI₃ Surfaces for Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 2903-2909.	4.6	320

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19	Improvement of efficiency of dye-sensitized solar cells by reduction of internal resistance. Applied Physics Letters, 2005, 86, 213501.	3.3	318
20	Hybrid interfacial layer leads to solid performance improvement of inverted perovskite solar cells. Energy and Environmental Science, 2015, 8, 629-640.	30.8	285
21	Efficient Defect Passivation for Perovskite Solar Cells by Controlling the Electron Density Distribution of Donorâ€Ï€â€Acceptor Molecules. Advanced Energy Materials, 2019, 9, 1803766.	19.5	280
22	Highly Stable and Efficient FASnI₃â€Based Perovskite Solar Cells by Introducing Hydrogen Bonding. Advanced Materials, 2019, 31, e1903721.	21.0	266
23	The Main Progress of Perovskite Solar Cells in 2020â€“2021. Nano-Micro Letters, 2021, 13, 152.	27.0	250
24	Colloidal quantum dot solar cells. Solar Energy, 2011, 85, 1264-1282.	6.1	246
25	Efficient and Stable Chemical Passivation on Perovskite Surface via Bidentate Anchoring. Advanced Energy Materials, 2019, 9, 1803573.	19.5	232
26	A novel Dâ€“A-Ï€-A organic sensitizer containing a diketopyrrolopyrrole unit with a branched alkyl chain for highly efficient and stable dye-sensitized solar cells. Chemical Communications, 2012, 48, 6972.	4.1	229
27	A chemically inert bismuth interlayer enhances long-term stability of inverted perovskite solar cells. Nature Communications, 2019, 10, 1161.	12.8	225
28	Efficiency progress of inverted perovskite solar cells. Energy and Environmental Science, 2020, 13, 3823-3847.	30.8	210
29	High Electron Affinity Enables Fast Hole Extraction for Efficient Flexible Inverted Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 1903487.	19.5	210
30	Efficient and Stable CsPbI₃ Solar Cells via Regulating Lattice Distortion with Surface Organic Terminal Groups. Advanced Materials, 2019, 31, e1900605.	21.0	209
31	Surface-Controlled Oriented Growth of FASnI3 Crystals for Efficient Lead-free Perovskite Solar Cells. Joule, 2020, 4, 902-912.	24.0	208
32	Modeling of an equivalent circuit for dye-sensitized solar cells: improvement of efficiency of dye-sensitized solar cells by reducing internal resistance. Comptes Rendus Chimie, 2006, 9, 645-651.	0.5	206
33	Highly compact TiO₂layer for efficient hole-blocking in perovskite solar cells. Applied Physics Express, 2014, 7, 052301.	2.4	199
34	In Situ Grain Boundary Functionalization for Stable and Efficient Inorganic CsPbI₂Br Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1801050.	19.5	195
35	Constructing High-Efficiency Dâ€“Aâˆ'Ï€â€“A-Featured Solar Cell Sensitizers: a Promising Building Block of 2,3-Diphenylquinoxaline for Antiaggregation and Photostability. ACS Applied Materials & Interfaces, 2013, 5, 4986-4995.	8.0	187
36	Efficient Passivation of Hybrid Perovskite Solar Cells Using Organic Dyes with ï£¿COOH Functional Group. Advanced Energy Materials, 2018, 8, 1800715.	19.5	187

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37	A quasi coreâ€“shell nitrogen-doped graphene/cobalt sulfide conductive catalyst for highly efficient dye-sensitized solar cells. Energy and Environmental Science, 2014, 7, 2637-2641.	30.8	185
38	Soft-cover deposition of scaling-up uniform perovskite thin films for high cost-performance solar cells. Energy and Environmental Science, 2016, 9, 2295-2301.	30.8	173
39	Efficient Perovskite Solar Cell Modules with High Stability Enabled by Iodide Diffusion Barriers. Joule, 2019, 3, 2748-2760.	24.0	167
40	Templated growth of FASnI₃ crystals for efficient tin perovskite solar cells. Energy and Environmental Science, 2020, 13, 2896-2902.	30.8	165
41	Slot-die coating large-area formamidinium-cesium perovskite film for efficient and stable parallel solar module. Science Advances, 2021, 7, .	10.3	165
42	Conversion efficiency of 10.8% by a dye-sensitized solar cell using a TiO2 electrode with high haze. Applied Physics Letters, 2006, 88, 223505.	3.3	163
43	n-Type Doping and Energy States Tuning in CH₃NH₃Pb_{1â€“<i>x</i>}Sb_{2<i>x</i>/3}I₃ Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 535-541.	17.4	160
44	Efficient and stable tin-based perovskite solar cells by introducing Ï€-conjugated Lewis base. Science China Chemistry, 2020, 63, 107-115.	8.2	160
45	Pbâ€Reduced CsPb_{0.9}Zn_{0.1}I₂Br Thin Films for Efficient Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900896.	19.5	150
46	Enhanced Stability of Perovskite Solar Cells through Corrosionâ€Free Pyridine Derivatives in Holeâ€Transporting Materials. Advanced Materials, 2016, 28, 10738-10743.	21.0	147
47	Surface Properties of CH₃NH₃PbI₃ for Perovskite Solar Cells. Accounts of Chemical Research, 2016, 49, 554-561.	15.6	145
48	Efficient and stable tin perovskite solar cells enabled by amorphous-polycrystalline structure. Nature Communications, 2020, 11, 2678.	12.8	143
49	Highâ€Quality Mixedâ€Organicâ€Cation Perovskites from a Phaseâ€Pure Nonâ€stoichiometric Intermediate (FAI)_{1âˆ’}<i>_x</i>â€PbI₂ for Solar Cells. Advanced Materials, 2015, 27, 4918-4923.	21.0	140
50	Control of Electrical Potential Distribution for High-Performance Perovskite Solar Cells. Joule, 2018, 2, 296-306.	24.0	138
51	Effect of Cerium Doping in the TiO₂ Photoanode on the Electron Transport of Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2012, 116, 19182-19190.	3.1	137
52	Bifunctional alkyl chain barriers for efficient perovskite solar cells. Chemical Communications, 2015, 51, 7047-7050.	4.1	135
53	Lead-free tin perovskite solar cells. Joule, 2021, 5, 863-886.	24.0	134
54	Direct Arylation Polycondensation: A Promising Method for the Synthesis of Highly Pure, Highâ€Molecularâ€Weight Conjugated Polymers Needed for Improving the Performance of Organic Photovoltaics. Advanced Functional Materials, 2014, 24, 3226-3233.	14.9	126

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55	Measuring methods of cell performance of dye-sensitized solar cells. Review of Scientific Instruments, 2004, 75, 2828-2831.	1.3	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.	10.3	123
57	Solvent engineering for efficient inverted perovskite solar cells based on inorganic CsPbI2Br light absorber. Materials Today Energy, 2018, 8, 125-133.	4.7	121
58	Review on Practical Interface Engineering of Perovskite Solar Cells: From Efficiency to Stability. Solar Rrl, 2020, 4, 1900257.	5.8	119
59	Stable Inverted Planar Perovskite Solar Cells with Lowâ€Temperatureâ€Processed Holeâ€Transport Bilayer. Advanced Energy Materials, 2017, 7, 1700763.	19.5	115
60	Highly Reproducible and Efficient FASnI₃ Perovskite Solar Cells Fabricated with Volatilizable Reducing Solvent. Journal of Physical Chemistry Letters, 2020, 11, 2965-2971.	4.6	115
61	Reliable evaluation of dye-sensitized solar cells. Energy and Environmental Science, 2013, 6, 54-66.	30.8	114
62	[6,6]-Phenyl-C₆₁-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.	14.6	114
63	CsPb(I Br1âˆ’)3 solar cells. Science Bulletin, 2019, 64, 1532-1539.	9.0	114
64	Squaraine Dyes for Dyeâ€Sensitized Solar Cells: Recent Advances and Future Challenges. Chemistry - an Asian Journal, 2013, 8, 1706-1719.	3.3	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.	3.9	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.	17.4	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.	6.2	103
68	Annealing-free perovskite films by instant crystallization for efficient solar cells. Journal of Materials Chemistry A, 2016, 4, 8548-8553.	10.3	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.	8.0	102
70	Integrated dye-sensitized solar cell module with conversion efficiency of 8.2%. Applied Physics Letters, 2009, 94, 013305.	3.3	101
71	Donor-Ï€â€“Acceptor Based Stable Porphyrin Sensitizers for Dye-Sensitized Solar Cells: Effect of Ï€-Conjugated Spacers. Journal of Physical Chemistry C, 2017, 121, 6464-6477.	3.1	101
72	Synthesis and Characterization of New Efficient Tricarboxyterpyridyl (Î²-diketonato) Ruthenium(II) Sensitizers and Their Applications in Dye-Sensitized Solar Cells. Chemistry of Materials, 2006, 18, 5178-5185.	6.7	93

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73	Highâ€Performance, Transparent, Dyeâ€Sensitized Solar Cells for Seeâ€Through Photovoltaic Windows. Advanced Energy Materials, 2014, 4, 1301966.	19.5	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. Journal of Physical Chemistry C, 2010, 114, 10962-10968.	3.1	87
75	Toward Longâ€Term Stable and Highly Efficient Perovskite Solar Cells via Effective Charge Transporting Materials. Advanced Energy Materials, 2018, 8, 1800249.	19.5	85
76	Highly efficient tin perovskite solar cells achieved in a wide oxygen concentration range. Journal of Materials Chemistry A, 2020, 8, 2760-2768.	10.3	85
77	Ink Engineering of Inkjet Printing Perovskite. ACS Applied Materials & Interfaces, 2020, 12, 39082-39091.	8.0	85
78	Barrier Designs in Perovskite Solar Cells for Longâ€Term Stability. Advanced Energy Materials, 2020, 10, 2001610.	19.5	84
79	Influence of TiCl4 treatment on back contact dye-sensitized solar cells sensitized with black dye. Energy and Environmental Science, 2009, 2, 1205.	30.8	83
80	Enhanced Lightâ€Harvesting Capability of a Panchromatic Ru(II) Sensitizer Based on Ï€â€Extended Terpyridine with a 4â€Methylstylryl Group for Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2013, 23, 1817-1823.	14.9	82
81	Novel Nearâ€Infrared Squaraine Sensitizers for Stable and Efficient Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2014, 24, 3059-3066.	14.9	77
82	Estimate of singlet diffusion lengths in PCBM films by time-resolved emission studies. Chemical Physics Letters, 2009, 478, 33-36.	2.6	76
83	Aggregation-free branch-type organic dye with a twisted molecular architecture for dye-sensitized solar cells. Energy and Environmental Science, 2012, 5, 8548.	30.8	76
84	Rigid triarylamine-based efficient DSSC sensitizers with high molar extinction coefficients. Journal of Materials Chemistry A, 2013, 1, 4763.	10.3	76
85	Improvement of spectral response by co-sensitizers for high efficiency dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 4812.	10.3	76
86	Photoinduced electron injection in black dye sensitized nanocrystalline TiO2 films. Journal of Materials Chemistry, 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). Journal of Materials Chemistry, 2012, 22, 24048.	6.7	74
88	Lowâ€Temperature Softâ€Cover Deposition of Uniform Largeâ€Scale Perovskite Films for Highâ€Performance Solar Cells. Advanced Materials, 2017, 29, 1701440.	21.0	74
89	Chargeâ€Carrier Transport in Quasiâ€2D Ruddlesdenâ€“Popper Perovskite Solar Cells. Advanced Materials, 2022, 34, e2106822.	21.0	74
90	Dye-Sensitized Solar Cells Based on Quinoxaline Dyes: Effect of Ï€-Linker on Absorption, Energy Levels, and Photovoltaic Performances. Journal of Physical Chemistry C, 2014, 118, 16552-16561.	3.1	72

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91	In situ growth of graphene on both sides of a Cuâ€“Ni alloy electrode for perovskite solar cells with improved stability. Nature Energy, 2022, 7, 520-527.	39.5	68
92	New Approach to Low-Cost Dye-Sensitized Solar Cells With Back Contact Electrodes. Chemistry of Materials, 2008, 20, 4974-4979.	6.7	67
93	Effective Passivation with Selfâ€Organized Molecules for Perovskite Photovoltaics. Advanced Materials, 2022, 34, e2202100.	21.0	67
94	Carbazole based A-Ï€-D-Ï€-A dyes with double electron acceptor for dye-sensitized solar cell. Organic Electronics, 2014, 15, 266-275.	2.6	65
95	A novel metal-free panchromatic TiO2 sensitizer based on a phenylenevinylene-conjugated unit and an indoline derivative for highly efficient dye-sensitized solar cells. Chemical Communications, 2011, 47, 12400.	4.1	64
96	Incorporating a stable fluorenone unit into Dâ€“Aâ€“Ï€â€“A organic dyes for dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 19236.	6.7	64
97	Extrinsic Movable Ions in MAPbI₃ Modulate Energy Band Alignment in Perovskite Solar Cells. Advanced Energy Materials, 2018, 8, 1701981.	19.5	62
98	Reliable Measurement of Perovskite Solar Cells. Advanced Materials, 2019, 31, e1803231.	21.0	62
99	Crystal-array-assisted growth of a perovskite absorption layer for efficient and stable solar cells. Energy and Environmental Science, 2022, 15, 1078-1085.	30.8	62
100	Enhanced Photovoltaic Performances of Dye-Sensitized Solar Cells by Co-Sensitization of Benzothiadiazole and Squaraine-Based Dyes. ACS Applied Materials & Interfaces, 2016, 8, 4616-4623.	8.0	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 Ï€-Spacers. Journal of Physical Chemistry C, 2015, 119, 17053-17064.	3.1	60
102	A comparative study of o,p-dimethoxyphenyl-based hole transport materials by altering Ï€-linker units for highly efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 10480-10485.	10.3	60
103	A Nearâ€Infrared <i>cis</i>â€Configured Squaraine Coâ€Sensitizer for Highâ€Efficiency Dyeâ€Sensitized Solar Cells. Advanced Functional Materials, 2013, 23, 3782-3789.	14.9	59
104	Interfacial engineering for dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 5167.	10.3	59
105	Panchromatic Donorâ€“Acceptorâ€“Donor Conjugated Oligomers for Dye-Sensitized Solar Cell Applications. ACS Applied Materials & Interfaces, 2014, 6, 8715-8722.	8.0	59
106	Ligandâ€Free, Highly Dispersed NiO_x Nanocrystal for Efficient, Stable, Lowâ€Temperature Processable Perovskite Solar Cells. Solar Rrl, 2018, 2, 1800004.	5.8	58
107	Inorganic and Lead-Free AgBiI₄ Rudorffite for Stable Solar Cell Applications. ACS Applied Energy Materials, 2018, 1, 4485-4492.	5.1	58
108	Two-dimensional perovskites: Impacts of species, components, and properties of organic spacers on solar cells. Nano Today, 2022, 43, 101394.	11.9	58

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109	Influence of TiO2/electrode interface on electron transport properties in back contact dye-sensitized solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 720-724.	6.2	57
110	Making Room for Growing Oriented FASnI₃ with Large Grains via Cold Precursor Solution. Advanced Functional Materials, 2021, 31, 2100931.	14.9	57
111	Preparation of donorâ€“acceptor type organic dyes bearing various electron-withdrawing groups for dye-sensitized solar cell application. Chemical Communications, 2011, 47, 6159.	4.1	56
112	Novel design of organic donorâ€“acceptor dyes without carboxylic acid anchoring groups for dye-sensitized solar cells. Journal of Materials Chemistry C, 2014, 2, 3367.	5.5	56
113	Zinc ion as effective film morphology controller in perovskite solar cells. Sustainable Energy and Fuels, 2018, 2, 1093-1100.	4.9	55
114	Efficient and Stable Tin Perovskite Solar Cells Enabled by Graded Heterostructure of Lightâ€Absorbing Layer. Solar Rrl, 2020, 4, 2000240.	5.8	53
115	Crystallization kinetics modulation and defect suppression of all-inorganic CsPbX₃ perovskite films. Energy and Environmental Science, 2022, 15, 413-438.	30.8	53
116	Back Contact Dye-Sensitized Solar Cells. Japanese Journal of Applied Physics, 2007, 46, L420-L422.	1.5	49
117	Influence of Number of Benzodioxan-Stilbazole-based Ancillary Ligands on Dye Packing, Photovoltage and Photocurrent in Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 11617-11624.	8.0	49
118	Protonated Carboxyl Anchor for Stable Adsorption of Ru N749 Dye (Black Dye) on a TiO2 Anatase (101) Surface. Journal of Physical Chemistry Letters, 2012, 3, 472-477.	4.6	48
119	Thiocyanate-free cyclometalated ruthenium(ii) sensitizers for DSSC: A combined experimental and theoretical investigation. Physical Chemistry Chemical Physics, 2014, 16, 2630.	2.8	48
120	Molecular Engineering of New Thienylâ€Bodipy Dyes for Highly Efficient Panchromatic Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1400085.	19.5	47
121	Fullerene-Structured MoSe2 Hollow Spheres Anchored on Highly Nitrogen-Doped Graphene as a Conductive Catalyst for Photovoltaic Applications. Scientific Reports, 2015, 5, 13214.	3.3	46
122	Robust hole transport material with interface anchors enhances the efficiency and stability of inverted formamidiniumâ€“cesium perovskite solar cells with a certified efficiency of 22.3%. Energy and Environmental Science, 2022, 15, 2567-2580.	30.8	46
123	Scanning Tunneling Microscopy Study of Black Dye and Deoxycholic Acid Adsorbed on a Rutile TiO₂(110). Langmuir, 2008, 24, 8056-8060.	3.5	45
124	Donorâ€“acceptor dyes incorporating a stable dibenzosilole Ï€-conjugated spacer for dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 10771.	6.7	45
125	Structureâ€“property relationship of extended Ï€-conjugation of ancillary ligands with and without an electron donor of heteroleptic Ru(ii) bipyridyl complexes for high efficiency dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2013, 15, 8401.	2.8	44
126	Co-sensitization of amphiphilic ruthenium (II) sensitizer with a metal free organic dye: Improved photovoltaic performance of dye sensitized solar cells. Organic Electronics, 2013, 14, 1237-1241.	2.6	43

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127	Novel coreâ€“shell TiO₂microsphere scattering layer for dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 1502-1508.	10.3	43
128	Consecutive Morphology Controlling Operations for Highly Reproducible Mesostructured Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 20707-20713.	8.0	43
129	Effects of A site doping on the crystallization of perovskite films. Journal of Materials Chemistry A, 2021, 9, 1372-1394.	10.3	43
130	A Scalable Integrated Dopantâ€Free Heterostructure to Stabilize Perovskite Solar Cell Modules. Advanced Energy Materials, 2021, 11, 2003301.	19.5	43
131	Defect Passivation for Perovskite Solar Cells: from Molecule Design to Device Performance. ChemSusChem, 2021, 14, 4354-4376.	6.8	43
132	Heterogeneous FASnI3 Absorber with Enhanced Electric Field for High-Performance Lead-Free Perovskite Solar Cells. Nano-Micro Letters, 2022, 14, 99.	27.0	43
133	Design of Low Bandgap CsPb_{1âˆ’}<i>_x</i>Sn<i>_x</i>I₂Br Perovskite Solar Cells with Excellent Phase Stability. Small, 2021, 17, e2101380.	10.0	42
134	More stable and more efficient alternatives of Z-907: carbazole-based amphiphilic Ru(<scp>ii</scp>) sensitizers for dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2014, 16, 27078-27087.	2.8	41
135	Effects of various Ï€-conjugated spacers in thiadiazole[3,4-c]pyridine-cored panchromatic organic dyes for dye-sensitized solar cells. Journal of Materials Chemistry A, 2015, 3, 3103-3112.	10.3	41
136	Near-infrared squaraine co-sensitizer for high-efficiency dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2016, 18, 14279-14285.	2.8	41
137	Synergistic Coassembly of Highly Wettable and Uniform Holeâ€Extraction Monolayers for Scalingâ€up Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 1909509.	14.9	41
138	Hexagonal TiO2 microplates with superior light scattering for dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 20773.	6.7	40
139	Twoâ€Step direct arylation for synthesis of naphthalenediimideâ€based conjugated polymer. Journal of Polymer Science Part A, 2014, 52, 1401-1407.	2.3	40
140	Structureâ€“property relationship of naphthalene based donorâ€“Ï€â€“acceptor organic dyes for dye-sensitized solar cells: remarkable improvement of open-circuit photovoltage. Journal of Materials Chemistry, 2012, 22, 22550.	6.7	39
141	Circle chain embracing donorâ€“acceptor organic dye: simultaneous improvement of photocurrent and photovoltage for dye-sensitized solar cells. Chemical Communications, 2013, 49, 7587.	4.1	38
142	Sustainable Pb Management in Perovskite Solar Cells toward Ecoâ€Friendly Development. Advanced Energy Materials, 2022, 12, .	19.5	38
143	Tuning the Electrical and Optical Properties of Diketopyrrolopyrrole Complexes for Panchromatic Dyeâ€Sensitized Solar Cells. Chemistry - an Asian Journal, 2012, 7, 2895-2903.	3.3	37
144	Progress of all-perovskite tandem solar cells: the role of narrow-bandgap absorbers. Science China Chemistry, 2021, 64, 218-227.	8.2	37

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145	Ruthenium(II) Tricarboxyterpyridyl Complex with a Fluorine-substituted Î²-Diketonato Ligand for Highly Efficient Dye-sensitized Solar Cells. Chemistry Letters, 2005, 34, 344-345.	1.3	36
146	Quantitative study of solvent effects on electron injection efficiency for black-dye-sensitized nanocrystalline TiO2 films. Solar Energy Materials and Solar Cells, 2009, 93, 698-703.	6.2	36
147	Surface ion transfer growth of ternary CdS1âˆ’xSex quantum dots and their electron transport modulation. Nanoscale, 2012, 4, 7690.	5.6	36
148	Cascade cyclization of aryldiynes using iodine: synthesis of iodo-substituted benzo[b]naphtho[2,1-d]thiophene derivatives for dye-sensitized solar cells. Tetrahedron Letters, 2012, 53, 1946-1950.	1.4	36
149	Highly conjugated electron rich thiophene antennas on phenothiazine and phenoxazine-based sensitizers for dye sensitized solar cells. Synthetic Metals, 2014, 195, 208-216.	3.9	36
150	Lead-Free Perovskite Solar Cells with Over 10% Efficiency and Size 1 cm² Enabled by Solventâ€“Crystallization Regulation in a Two-Step Deposition Method. ACS Energy Letters, 2022, 7, 425-431.	17.4	36
151	Methods of Measuring Energy Conversion Efficiency in Dye-sensitized Solar Cells. Japanese Journal of Applied Physics, 2005, 44, 4176-4181.	1.5	35
152	Dye-Sensitized Photovoltaic Module with Conversion Efficiency of 8.4%. Applied Physics Express, 2009, 2, 082202.	2.4	35
153	Long-Wavelength Sensitization of TiO2by Ruthenium Diimine Compounds with Low-Lying Ï€* Orbitals. Langmuir, 2011, 27, 14522-14531.	3.5	35
154	The Application of Graphene Derivatives in Perovskite Solar Cells. Small Methods, 2020, 4, 2000507.	8.6	35
155	Additive Engineering toward Highâ€Performance Tin Perovskite Solar Cells. Solar Rrl, 2021, 5, 2100034.	5.8	34
156	Effects of 4-tert-butylpyridine on the quasi-Fermi levels of TiO2 films in the presence of different cations in dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2011, 13, 19310.	2.8	33
157	Organic-inorganic halide perovskite solar cell with CH3NH3PbI2Br as hole conductor. Journal of Power Sources, 2017, 339, 61-67.	7.8	33
158	Stabilizing Formamidinium Lead Iodide Perovskite by Sulfonylâ€Functionalized Phenethylammonium Salt via Crystallization Control and Surface Passivation. Solar Rrl, 2020, 4, 2000069.	5.8	33
159	Fast Carrier Formation from Acceptor Exciton in Low-Gap Organic Photovotalic. Applied Physics Express, 2012, 5, 042302.	2.4	32
160	Panchromatic donorâ€“acceptorâ€“acceptor sensitizers based on 4H-cyclopenta[2,1-b:3,4-bâ€²]dithiophen-4-one as a strong acceptor for dye-sensitized solar cells. Dyes and Pigments, 2012, 94, 553-560.	3.7	32
161	Water Contamination Effect on Liquid Acetonitrile/TiO₂ Anatase (101) Interface for Durable Dye-Sensitized Solar Cell. Journal of Physical Chemistry C, 2011, 115, 19849-19855.	3.1	31
162	Efficient metal-free sensitizers bearing circle chain embracing Ï€-spacers for dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 10889.	10.3	31

#	Article	IF	Citations
163	Coordinated shifts of interfacial energy levels: insight into electron injection in highly efficient dye-sensitized solar cells. Energy and Environmental Science, 2013, 6, 3637.	30.8	31
164	A comparative study of Ru(<scp>ii</scp>) cyclometallated complexes versus thiocyanated heteroleptic complexes: thermodynamic force for efficient dye regeneration in dye-sensitized solar cells and how low could it be?. Physical Chemistry Chemical Physics, 2014, 16, 14874-14881.	2.8	31
165	First-Principles Study of Electron Injection and Defects at the TiO₂/CH₃NH₃PbI₃ Interface of Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2017, 8, 5840-5847.	4.6	31
166	Panchromatic absorption of dye sensitized solar cells by co-Sensitization of triple organic dyes. Sustainable Energy and Fuels, 2018, 2, 209-214.	4.9	31
167	A general strategy to prepare high-quality inorganic charge-transporting layers for efficient and stable all-layer-inorganic perovskite solar cells. Journal of Materials Chemistry A, 2019, 7, 18603-18611.	10.3	31
168	Improved power conversion efficiency of bulk-heterojunction organic solar cells using a benzothiadiazoleâ€"triphenylamine polymer. Journal of Materials Chemistry, 2012, 22, 2539-2544.	6.7	30
169	Influence of cyclic versus acyclic oxygen-containing electron donor ancillary ligands on the photocurrent, photovoltage and photostability for high efficiency dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 13679.	10.3	30
170	New fluorenone-containing organic photosensitizers for dye-sensitized solar cells. Dyes and Pigments, 2013, 98, 428-436.	3.7	30
171	Cosensitization of Rutheniumâ€"Polypyridyl Dyes with Organic Dyes in Dye-sensitized Solar Cells. Chemistry Letters, 2013, 42, 1328-1335.	1.3	30
172	Influence of mono versus bis-electron-donor ancillary ligands in heteroleptic Ru(<scp>ii</scp>) bipyridyl complexes on electron injection from the first excited singlet and triplet states in dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 14228-14235.	10.3	30
173	Effect of the anchoring group in the performance of carbazole-phenothiazine dyads for dye-sensitized solar cells. Dyes and Pigments, 2015, 113, 536-545.	3.7	30
174	Stable and charge recombination minimized Ï€-extended thioalkyl substituted tetrathiafulvalene dye-sensitized solar cells. Materials Chemistry Frontiers, 2017, 1, 460-467.	5.9	30
175	Reduction of Nonradiative Loss in Inverted Perovskite Solar Cells by Donorâ^'Ï€â€"Acceptor Dipoles. ACS Applied Materials & Interfaces, 2021, 13, 44321-44328.	8.0	30
176	Interface Energyâ€Level Management toward Efficient Tin Perovskite Solar Cells with Holeâ€Transportâ€Layerâ€Free Structure. Advanced Functional Materials, 2021, 31, 2106560.	14.9	30
177	Functionalized styryl bipyridine as a superior chelate for a ruthenium sensitizer in dye sensitized solar cells. Dalton Transactions, 2012, 41, 8770.	3.3	29
178	Highly efficient nanoporous graphitic carbon with tunable textural properties for dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 20866.	6.7	29
179	New simple panchromatic dyes based on thiadiazolo[3,4-c]pyridine unit for dye-sensitized solar cells. Dyes and Pigments, 2014, 102, 196-203.	3.7	29
180	Effect of 4-<i>tert</i>-Butylpyridine on the Quasi-Fermi Level of Dye-Sensitized TiO₂Films. Applied Physics Express, 2011, 4, 042301.	2.4	28

#	Article	IF	Citations
181	Dramatic enhancement of fullerene anion formation in polymer solar cells by thermal annealing: Direct observation by electron spin resonance. Applied Physics Letters, 2014, 104, .	3.3	28
182	Efficient thiocyanate-free sensitizer: a viable alternative to N719 dye for dye-sensitized solar cells. Dalton Transactions, 2012, 41, 7604.	3.3	27
183	Structureâ€“property relationship of different electron donors: novel organic sensitizers based on fused dithienothiophene Ï€-conjugated linker for high efficiency dye-sensitized solar cells. Tetrahedron, 2013, 69, 3444-3450.	1.9	27
184	Neutral and anionic tetrazole-based ligands in designing novel ruthenium dyes for dye-sensitized solar cells. Journal of Power Sources, 2016, 307, 416-425.	7.8	27
185	A Î²-Diketonato Ruthenium(II) Complex with High Molar Extinction Coefficient for Panchromatic Sensitization of Nanocrystalline TiO₂Film. Applied Physics Express, 2010, 3, 062301.	2.4	26
186	A Novel Organic Sensitizer Combined with a Cobalt Complex Redox Shuttle for Dye-Sensitized Solar Cells. Organic Letters, 2012, 14, 2532-2535.	4.6	26
187	Band alignment by ternary crystalline potential-tuning interlayer for efficient electron injection in quantum dot-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 7004-7014.	10.3	26
188	Triflic Acid Mediated Cascade Cyclization of Aryldiynes for the Synthesis of Indeno[1,2â€<i>c</i>]chromenes: Application to Dyeâ€Sensitized Solar Cells. Chemistry - A European Journal, 2015, 21, 4065-4070.	3.3	26
189	Evaluation of carrier transport and recombinations in cadmium selenide quantum-dot-sensitized solar cells. Solar Energy Materials and Solar Cells, 2012, 101, 5-10.	6.2	25
190	Structureâ€“property relationship of heteroâ€aromaticâ€electronâ€donor antennas of polypyridyl Ru (II) complexes for high efficiency dyeâ€sensitized solar cells. Progress in Photovoltaics: Research and Applications, 2014, 22, 958-969.	8.1	25
191	Simple Fluorene Based Triarylamine Metal-Free Organic Sensitizers. Electrochimica Acta, 2015, 174, 581-587.	5.2	25
192	Hybrid Inorganic Electron-Transporting Layer Coupled with a Halogen-Resistant Electrode in CsPbI₂Br-Based Perovskite Solar Cells to Achieve Robust Long-Term Stability. ACS Applied Materials & Interfaces, 2019, 11, 43303-43311.	8.0	25
193	Stable perovskite solar cells with 23.12% efficiency and area over 1 cm2 by an all-in-one strategy. Science China Chemistry, 2022, 65, 1321-1329.	8.2	25
194	Voltage dependence of two-step photocurrent generation in quantum dot intermediate band solar cells. Solar Energy Materials and Solar Cells, 2015, 134, 108-113.	6.2	23
195	Work Function on Dye-Adsorbed TiO₂ Surfaces Measured by Using a Kelvin Probe Force Microscope. Journal of Physical Chemistry C, 2008, 112, 6961-6967.	3.1	22
196	STM imaging of a model surface of Ru(4,4â€²-dicarboxy-2,2â€²-bipyridine)2(NCS)2 dye-sensitized TiO2 photoelectrodes. Surface Science, 2010, 604, 106-110.	1.9	22
197	THIOCYANATE-FREE, PANCHROMATIC RUTHENIUM (II) TERPYRIDINE SENSITIZER HAVING A TRIDENTATE DIETHYLENETRIAMINE LIGAND FOR NEAR-IR SENSITIZATION OF NANOCRYSTALINE TiO₂. Functional Materials Letters, 2011, 04, 21-24.	1.2	22
198	Exciton-to-Carrier Conversion Processes in a Low-Band-Gap Organic Photovoltaic. Japanese Journal of Applied Physics, 2013, 52, 062405.	1.5	22

#	Article	IF	Citations
199	Hierarchically Structured ZnO Nanorods as an Efficient Photoanode for Dyeâ€Sensitized Solar Cells. Chemistry - A European Journal, 2014, 20, 8483-8487.	3.3	22
200	Research activities on perovskite solar cells in China. Science China Chemistry, 2019, 62, 822-828.	8.2	22
201	Dual Functions of Performance Improvement and Lead Leakage Mitigation of Perovskite Solar Cells Enabled by Phenylbenzimidazole Sulfonic Acid. Small Methods, 2022, 6, e2101257.	8.6	22
202	Electron transport in back contact dye-sensitized solar cells. Journal of Applied Physics, 2008, 104, 064307.	2.5	21
203	One bipyridine and triple advantages: tailoring ancillary ligands in ruthenium complexes for efficient sensitization in dye solar cells. Journal of Materials Chemistry, 2012, 22, 18757.	6.7	21
204	2,6-Bis(1-methylbenzimidazol-2-yl)pyridine: A New Ancillary Ligand for Efficient Thiocyanate-Free Ruthenium Sensitizer in Dye-Sensitized Solar Cell Applications. ACS Applied Materials & Interfaces, 2013, 5, 11623-11630.	8.0	21
205	Shielding effects of additives in a cobalt(ii/iii) redox electrolyte: toward higher open-circuit photovoltages in dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 10532.	10.3	21
206	Recombination rate between dye cations and electrons in N719-sensitized nanocrystalline TiO2 films under substantially weak excitation conditions. Chemical Physics Letters, 2009, 471, 280-282.	2.6	20
207	Metal-free organic dyes containing thiadiazole unit for dye-sensitized solar cells: a combined experimental and theoretical study. RSC Advances, 2014, 4, 13172.	3.6	20
208	Effect of spacers and anchoring groups of extended Ï€-conjugated tetrathiafulvalene based sensitizers on the performance of dye sensitized solar cells. Sustainable Energy and Fuels, 2017, 1, 345-353.	4.9	20
209	Self-assembled interlayer aiming at the stability of NiO based perovskite solar cells. Journal of Energy Chemistry, 2022, 69, 211-220.	12.9	20
210	Syntheses and absorption spectra of intermolecular charge-transfer complex dyes. Dyes and Pigments, 1988, 9, 343-350.	3.7	19
211	Ethanol adsorption on rutile TiO2(110). RSC Advances, 2014, 4, 8550.	3.6	19
212	Monodentate pyrazole as a replacement of labile NCS for Ru (II) photosensitizers: Minimum electron injection free energy for dye-sensitized solar cells. Dyes and Pigments, 2015, 120, 93-98.	3.7	19
213	Injection Efficiency in Dye-Sensitized Solar Cells within a Two-Band Model. Journal of Physical Chemistry C, 2011, 115, 6033-6039.	3.1	18
214	Controlled fabrication of TiO2rutile nanorod/anatase nanoparticle composite photoanodes for dye-sensitized solar cell application. Nanotechnology, 2011, 22, 275709.	2.6	18
215	Novel Approach for the Synthesis of Nanocrystalline Anatase Titania and Their Photovoltaic Application. Advances in OptoElectronics, 2011, 2011, 1-5.	0.6	18
216	Development of a New Class of Thiocyanate-Free Cyclometalated Ruthenium(II) Complex for Sensitizing Nanocrystalline TiO2Solar Cells. International Journal of Photoenergy, 2011, 2011, 1-5.	2.5	18

#	Article	IF	Citations
217	Use of benzothiadiazoleâ€“triphenylamine amorphous polymer for reproducible performance of polymerâ€“fullerene bulk-heterojunction solar cells. Organic Electronics, 2012, 13, 1802-1808.	2.6	18
218	Novel ruthenium sensitizer with multiple butadiene equivalent thienyls as conjugation on ancillary ligand for dye-sensitized solar cells. Organic Electronics, 2013, 14, 2243-2248.	2.6	18
219	Effect of different trap states on the electron transport of photoanodes in dye sensitized solar cells. Journal of Power Sources, 2014, 257, 264-271.	7.8	18
220	Thieno[2,3-a]carbazole-based donorâ€“Ï€â€“acceptor organic dyes for efficient dye-sensitized solar cells. Tetrahedron, 2014, 70, 6211-6216.	1.9	18
221	High Efficiency of Dye-Sensitized Solar Cell and Module. , 2006, , .		17
222	Fabrication of Stretch-Oriented Regioregular Poly(3-Hexylthiophene) film and Its Application to Organic Field-Effect Transistors. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2009, 22, 713-717.	0.3	17
223	Template method for fabricating interdigitate p-n heterojunction for organic solar cell. Nanoscale Research Letters, 2012, 7, 469.	5.7	17
224	Modification of SnO₂ with Phosphorusâ€‘Containing Lewis Acid for Highâ€‘Performance Planar Perovskite Solar Cells with Negligible Hysteresis. Solar Rrl, 2022, 6, .	5.8	17
225	Simple Metal-Free Organic D-Ï€-A Dyes with Alkoxy- or Fluorine Substitutions: Application in Dye Sensitized Solar Cells. Journal of Nanoscience and Nanotechnology, 2012, 12, 4489-4494.	0.9	16
226	Synthesis and photovoltaic properties of amorphous polymers based on dithienylbenzothiadiazoleâ€“triphenylamine with hexyl side chains on different positions of thienyl groups. Journal of Polymer Science Part A, 2013, 51, 2536-2544.	2.3	16
227	A hybrid catalyst composed of reduced graphene oxide/Cu₂S quantum dots as a transparent counter electrode for dye sensitized solar cells. RSC Advances, 2015, 5, 9075-9078.	3.6	16
228	Synthesis and photovoltaic properties of naphthobisthiadiazole-triphenylamine-based donorâ€“acceptor Ï€-conjugated polymer. Polymer, 2015, 58, 139-145.	3.8	16
229	Thiocyanate-free asymmetric ruthenium(II) dye sensitizers containing azole chromophores with near-IR light-harvesting capacity. Journal of Power Sources, 2016, 331, 100-111.	7.8	16
230	Solar cells boosted by an improved charge-carrying material. Nature, 2019, 567, 465-467.	27.8	16
231	Photovoltaic Properties and Charge Dynamics in Nanophase-Separated F8T2/PCBM Blend Films. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2012, 25, 271-276.	0.3	15
232	X-ray Characterization of Dye Adsorption in Coadsorbed Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2013, 117, 17033-17038.	3.1	15
233	Energy band tunable TixSn1âˆ’xO2 photoanode for efficient non-TiO2 type dye sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 8453.	10.3	15
234	Stable tin perovskite solar cells developed via additive engineering. Science China Materials, 2021, 64, 2645-2654.	6.3	15

#	Article	IF	Citations
235	Restricting the Formation of Pbâ€“Pb Dimer via Surface Pb Site Passivation for Enhancing the Light Stability of Perovskite. Small, 2022, 18, e2201831.	10.0	15
236	Air-stable triarylamine-based amorphous polymer as donor material for bulk-heterojunction organic solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 3509-3515.	6.2	14
237	Ellipsoidal TiO₂ Hierarchitectures with Enhanced Photovoltaic Performance. Chemistry - A European Journal, 2012, 18, 5269-5274.	3.3	14
238	Functionalized phenyl bipyridine ancillary ligand as double recombination inhibitor in ruthenium complex for dye solar cells. Dyes and Pigments, 2013, 99, 850-856.	3.7	14
239	Tin Oxide Microspheres with Exposed {101} Facets for Dyeâ€sensitized Solar Cells: Enhanced Photocurrent and Photovoltage. ChemSusChem, 2014, 7, 172-178.	6.8	14
240	Acetonitrile Solution Effect on Ru N749 Dye Adsorption and Excitation at TiO₂ Anatase Interface. Journal of Physical Chemistry C, 2014, 118, 16863-16871.	3.1	14
241	Synthesis and optical properties of photovoltaic materials based on the ambipolar dithienonaphthothiadiazole unit. Journal of Materials Chemistry A, 2015, 3, 4229-4238.	10.3	14
242	Tuning of spectral response by co-sensitization in black-dye based dye-sensitized solar cell. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 651-656.	1.8	14
243	Low-Temperature Soft-Cover-Assisted Hydrolysis Deposition of Large-Scale TiO2 Layer for Efficient Perovskite Solar Modules. Nano-Micro Letters, 2018, 10, 49.	27.0	14
244	Droplet Manipulation and Crystallization Regulation in Inkjet-Printed Perovskite Film Formation. CCS Chemistry, 2022, 4, 1465-1485.	7.8	14
245	Charge-Transfer State and Charge Dynamics in Poly(9,9$'$-dioctylfluorene-<i>co</i>-bithiophene) and [6,6]-Phenyl C$_{70}$-butyric Acid Methyl Ester Blend Film. Applied Physics Express, 2011, 4, 122601.	2.4	13
246	Thieno[2,3,a]carbazole donor-based organic dyes for high efficiency dye-sensitized solar cells. Organic Chemistry Frontiers, 2015, 2, 253-258.	4.5	13
247	Effect of different auxiliary ligands and anchoring ligands on neutral thiocyanate-free ruthenium(II) dyes bearing tetrazole chromophores for dye-sensitized solar cells. Dyes and Pigments, 2017, 140, 354-362.	3.7	13
248	Metal-Free Counter Electrode for Efficient Dye-Sensitized Solar Cells through High Surface Area and Large Porous Carbon. International Journal of Photoenergy, 2011, 2011, 1-4.	2.5	12
249	Substitution effects of Ruâ€“terpyridyl complexes on photovoltaic and carrier transport properties in dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 11033.	10.3	12
250	Deuterium Isotope Effect on Bulk Heterojunction Solar Cells. Enhancement of Organic Photovoltaic Performances Using Monobenzyl Substituted Deuteriofullerene Acceptors. Organic Letters, 2013, 15, 5674-5677.	4.6	12
251	Functional 2-benzyl-1,2-dihydro[60]fullerenes as acceptors for organic photovoltaics: facile synthesis and high photovoltaic performances. Tetrahedron, 2013, 69, 1302-1306.	1.9	12
252	Structure of electron collection electrode in dye-sensitized nanocrystalline TiO2. Electrochimica Acta, 2013, 87, 309-316.	5.2	12

#	Article	IF	Citations
253	Improved power conversion efficiency of bulk-heterojunction organic photovoltaic cells using neat C70 as an effective acceptor for an amorphous Ï€-conjugated polymer. Organic Electronics, 2015, 25, 99-104.	2.6	12
254	New heteroleptic benzimidazole functionalized Ru-sensitizer showing the highest efficiency for dye-sensitized solar cells. Inorganic Chemistry Communication, 2015, 51, 61-65.	3.9	12
255	Accurate and fast evaluation of perovskite solar cells with least hysteresis. Applied Physics Express, 2017, 10, 076601.	2.4	12
256	Heteroleptic Ru(<scp>ii</scp>) cyclometalated complexes derived from benzimidazole-phenyl carbene ligands for dye-sensitized solar cells: an experimental and theoretical approach. Materials Chemistry Frontiers, 2017, 1, 947-957.	5.9	12
257	Chinaâ€™s progress of perovskite solar cells in 2019. Science Bulletin, 2020, 65, 1306-1315.	9.0	12
258	Key issues in highly efficient perovskite solar cells. Wuli Xuebao/Acta Physica Sinica, 2015, 64, 038404.	0.5	12
259	Chemical input and Iâ€"V output: stepwise chemical information processing in dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2012, 14, 16014.	2.8	11
260	Effect of branched alkyl chains attached at sp3 silicon of donorâ€"acceptor copolymers on their morphology and photovoltaic properties. Journal of Polymer Science Part A, 2012, 50, 4829-4839.	2.3	11
261	Electronic structure of acetonitrile adsorbed on the anatase TiO2 (101) surface. Chemical Physics Letters, 2013, 556, 225-229.	2.6	11
262	Carrier formation dynamics of a small-molecular organic photovoltaic. Applied Physics Letters, 2013, 102, .	3.3	11
263	Lateral distribution of N3 dye molecules on TiO2(1 1 0) surface. Journal of Photochemistry and Photobiology A: Chemistry, 2009, 202, 185-190.	3.9	10
264	RUTILE-ANATASE TiO₂ PHOTOANODES FOR DYE-SENSITIZED SOLAR CELLS. Journal of Nonlinear Optical Physics and Materials, 2010, 19, 673-679.	1.8	10
265	Theoretical Investigation on Interfacial-Potential-Limited Diffusion and Recombination in Dye-Sensitized Solar Cells. Journal of Physical Chemistry C, 2011, 115, 17154-17162.	3.1	10
266	A New Factor Affecting the Performance of Dye-Sensitized Solar Cells in the Presence of 4-tert-Butylpyridine. Applied Physics Express, 2012, 5, 042303.	2.4	10
267	Carrier Formation Dynamics of Organic Photovoltaics as Investigated by Time-Resolved Spectroscopy. Advances in Optical Technologies, 2012, 2012, 1-10.	0.8	10
268	Simple indoline based donorâ€"acceptor dye for high efficiency dye-sensitized solar cells. Materials Chemistry and Physics, 2013, 142, 82-86.	4.0	10
269	Improving the Spectral Response of Black Dye by Cosensitization with a Simple Indoline Based Dye in Dye-Sensitized Solar Cell. Journal of Chemistry, 2013, 2013, 1-5.	1.9	10
270	Selective Deposition of Insulating Metal Oxide in Perovskite Solar Cells with Enhanced Device Performance. ChemSusChem, 2015, 8, 2625-2629.	6.8	10

#	Article	IF	Citations
271	Stable tin perovskite solar cells enabled by widening the time window for crystallization. Science China Materials, 2021, 64, 1849-1857.	6.3	10
272	4,4â€²-Unsymmetrically substituted-2,2â€²-bipyridines: novel bidentate ligands on ruthenium(ii) [3 + 2 + 1] mixed ligand complexes for efficient sensitization of nanocrystalline TiO2 in dye solar cells. RSC Advances, 2013, 3, 26035.	3.6	9
273	Robust carrier formation process in low-band gap organic photovoltaics. Applied Physics Letters, 2013, 103, 173901.	3.3	9
274	Tripleâ€Yolked ZnO/CdS Hollow Spheres for Semiconductorâ€Sensitized Solar Cells. Particle and Particle Systems Characterization, 2014, 31, 757-762.	2.3	9
275	Efficient Synthesis and Photosensitizer Performance of Nonplanar Organic Donorâ€"Acceptor Molecules. Journal of Nanoscience and Nanotechnology, 2015, 15, 5856-5866.	0.9	9
276	Efficient thieno[3,2-a]carbazole-based organic dyes for dye-sensitized solar cells. Tetrahedron, 2015, 71, 6534-6540.	1.9	9
277	Cyclometalated ruthenium complexes with 6-(ortho-methoxyphenyl)-2,2â€²-bipyridine as panchromatic dyes for dye-sensitized solar cells. Journal of Organometallic Chemistry, 2017, 833, 61-70.	1.8	9
278	Successive large perturbation method for the elimination of initial value dependence in I-V curve fitting. Review of Scientific Instruments, 2009, 80, 115111.	1.3	8
279	Piperidine-Substituted Perylene Sensitizer for Dye-Sensitized Solar Cells. Advances in OptoElectronics, 2011, 2011, 1-7.	0.6	8
280	Effect of co-adsorption dye on the electrode interface (Ru complex/TiO2) of dye-sensitized solar cells. AIP Advances, 2013, 3, .	1.3	8
281	Study of Donorâ€"Acceptorâ€"Ï€â€"Acceptor Architecture Sensitizers with Benzothiazole Acceptor for Dyeâ€Sensitized Solar Cells. Energy Technology, 2016, 4, 458-468.	3.8	8
282	2Dâ€MA₃Sb₂I₉ Back Surface Field for Efficient and Stable Perovskite Solar Cells. Small Methods, 2021, 5, e2001090.	8.6	8
283	Synthesis and Application of New Ruthenium Complexes ContainingÎ²-Diketonato Ligands as Sensitizers for Nanocrystalline TiO2Solar Cells. International Journal of Photoenergy, 2011, 2011, 1-8.	2.5	7
284	Impacts of ambipolar carrier escape on current-voltage characteristics in a type-I quantum-well solar cell. Applied Physics Letters, 2013, 103, 061118.	3.3	7
285	Manganese powder promoted highly efficient and selective synthesis of fullerene mono- and biscycloadducts at room temperature. Scientific Reports, 2015, 5, 13920.	3.3	7
286	New ruthenium complexes (Ru[3+2+1]) bearing Ï€-extended 4-methylstyryl terpyridine and unsymmetrical bipyridine ligands for DSSC applications. Inorganica Chimica Acta, 2015, 435, 46-52.	2.4	7
287	Effect of thermal-convection-induced defects on the performance of perovskite solar cells. Applied Physics Express, 2017, 10, 075502.	2.4	7
288	Robust heterojunction to strengthen the performances of FAPbI3 perovskite solar cells. Chemical Engineering Journal, 2022, 432, 134311.	12.7	7

#	Article	IF	Citations
289	Amphiphilic Ruthenium(II) Terpyridine Sensitizers with Long Alkyl Chain Substituted Î²-Diketonato Ligands: An Efficient Coadsorbent-Free Dye-Sensitized Solar Cells. International Journal of Photoenergy, 2011, 2011, 1-7.	2.5	6
290	Synthesis of Thin Titania Photoanodes with Large Mesopores for Electricity-generating Windows. Chemistry Letters, 2015, 44, 656-658.	1.3	6
291	Preparation, Spectral Properties, and Electron Affinity of Bis(thiadiazolo)quinoxaline and Bis(thiadiazolo)phenanthroquinoxaline as n-Type Semiconductors. Chemistry Letters, 2011, 40, 1252-1253.	1.3	5
292	Surface Treatment for Effective Dye Adsorption on Nanocrystalline TiO$_{2}$. Japanese Journal of Applied Physics, 2012, 51, 10NE16.	1.5	5
293	Influences of Electron-Withdrawing Groups of Organic Dyes on Spectral Property and Photovoltaic Performance in Dye-sensitized Solar Cells Application. Japanese Journal of Applied Physics, 2012, 51, 10NE13.	1.5	5
294	Metalâ€Free and Fluorescent Diketopyrrolopyrrole Fluorophores for Dyeâ€Sensitized Solar Cells. ChemPlusChem, 2012, 77, 462-469.	2.8	5
295	Investigation of the influence of coadsorbent dye upon the interfacial structure of dye-sensitized solar cells. Journal of Chemical Physics, 2014, 141, 174709.	3.0	5
296	First-principles study on the cosensitization effects of Ru and squaraine dyes on a TiO2 surface. Surface Science, 2016, 649, 66-71.	1.9	5
297	Improvement of efficiency of dye-sensitized solar cells by reduction of internal resistance. , 0, , .		4
298	Benzothiadiazole-Triphenylamine Derivatives as Donor Materials for Bulk-Heterojunction Organic Solar Cells. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2010, 23, 307-312.	0.3	4
299	Multiwall Carbon Nanotube Coated with Conducting Polyaniline Nanocomposites for Quasi-Solid-State Dye-Sensitized Solar Cells. Journal of Chemistry, 2013, 2013, 1-5.	1.9	4
300	Effective charge collection in dye-sensitized nanocrystalline TiO 2. Advances in Natural Sciences: Nanoscience and Nanotechnology, 2013, 4, 015006.	1.5	4
301	Emission from Charge-Transfer States in Bulk Heterojunction Organic Photovoltaic Cells Based on Ethylenedioxythiophene-Fluorene Polymers. Molecular Crystals and Liquid Crystals, 2015, 620, 107-111.	0.9	4
302	Possibility of NCS Group Anchor for Ru Dye Adsorption to Anatase TiO2(101) Surface: A Density Functional Theory Investigation. Journal of Physical Chemistry C, 2015, 119, 234-241.	3.1	4
303	Photovoltaic Properties of Bithiazole-Based Polymers Synthesized by Direct C-H Arylation. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2016, 29, 347-352.	0.3	4
304	Surfactants for smoother films. Nature Energy, 2018, 3, 545-546.	39.5	4
305	Influences of Electron-Withdrawing Groups of Organic Dyes on Spectral Property and Photovoltaic Performance in Dye-sensitized Solar Cells Application. Japanese Journal of Applied Physics, 2012, 51, 10NE13.	1.5	4
306	Directly Determine an Additive-Induced Shift in Quasi-Fermi Level of TiO2Films in Dye-Sensitized Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 10NE15.	1.5	4

#	Article	IF	Citations
307	Quasi Solid-State Dye-Sensitized Solar Cell Incorporating Highly Conducting Polythiophene-Coated Carbon Nanotube Composites in Ionic Liquid. Advances in OptoElectronics, 2011, 2011, 1-7.	0.6	3
308	Currentâ€“Voltage Characteristics of GaAs/AlGaAs Coupled Multiple Quantum Well Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 10ND08.	1.5	3
309	Prominent Charge-Transfer State at Î±-Sexithiophene/C₆₀Interface. Journal of the Physical Society of Japan, 2013, 82, 063709.	1.6	3
310	GaAs/AlGaAs quantum wells with indirect-gap AlGaAs barriers for solar cell applications. Applied Physics Letters, 2014, 104, .	3.3	3
311	Microwave-assisted polycondensation of 4-octylaniline with dibromoarylene. Journal of Polymer Science Part A, 2015, 53, 536-542.	2.3	3
312	Bias voltage dependence of two-step photocurrent in GaAs/AlGaAs quantum well solar cells. Journal of Applied Physics, 2016, 119, .	2.5	3
313	Perovskite Solar Cells: Barrier Designs in Perovskite Solar Cells for Longâ€Term Stability (Adv. Energy) Tj ETQq1 1 0.784314 rgBT /Overlo	19.5	3
314	Recent advances in perovskite solar cells: Space potential and optoelectronic conversion mechanism. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158401.	0.5	3
315	SUCCESSIVE LARGE PERTURBATION METHOD FOR THE EXTRACTION OF MORE ACCURATE EQUIVALENT-CIRCUIT-PARAMETERS IN SOLAR CELLS. Journal of Nonlinear Optical Physics and Materials, 2010, 19, 637-643.	1.8	2
316	Dye-Sensitized Solar Cells Based on High Surface Area Nanocrystalline Zinc Oxide Spheres. Advances in OptoElectronics, 2011, 2011, 1-5.	0.6	2
317	Solar Energy Conversion by Dye-Sensitized Photovoltaic Cells Using High Surface Area Mesoporous Carbon Counter Electrode. Advances in OptoElectronics, 2011, 2011, 1-4.	0.6	2
318	Unexpected effect of dye's molar extinction coefficient on performance of back contact dye-sensitized solar cells. Applied Physics Letters, 2012, 101, 233905.	3.3	2
319	Substituent Effects for Perylenedicarboxylic Anhydrides on the Performance of Dye-sensitized Solar Cells: The Simpler, the Better. Chemistry Letters, 2013, 42, 450-452.	1.3	2
320	Labeling Co-Sensitizer Dye for XPS Quantification in Coadsorption Dye-Sensitized Solar Cells. E-Journal of Surface Science and Nanotechnology, 2014, 12, 63-67.	0.4	2
321	One-step fabrication of large-scaled indium tin oxide/poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate)/poly(3-hexylthiophene-2,5-diyl):[6,6]-phenyl-C61-butyric acid methyl ester multi-layered structure. Thin Solid Films, 2014, 554, 46-50.	1.8	2
322	Bulk Heterojunction Photovoltaic Cells with Triphenylamine-Based Amorphous Polymer and Non-Halogenated Solvent Processing Provide Reproducible Performance. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2015, 28, 373-376.	0.3	2
323	Charge-transfer complexes of N-ethylcarbazole and poly-N-vinylcarbazole with dicyanonaphthoquino derivatives: thermodynamic parameters and photofading behaviour. Dyes and Pigments, 1988, 9, 419-426.	3.7	1
324	Improvement of Efficiency of Polymer Solar Cells with Soluble Fullerene Derivatives. , 2006, , .		1

#	Article	IF	Citations
325	Highly efficient dye-sensitized solar cells. Proceedings of SPIE, 2009, , .	0.8	1
326	Highly Efficient Dye-sensitized Solar Cells. Materials Research Society Symposia Proceedings, 2011, 1327, 70501.	0.1	1
327	MODELS OF ELECTRON INJECTION, DIFFUSION AND RECOMBINATION IN DYE-SENSITIZED SOLAR CELLS. International Journal of Modern Physics B, 2012, 26, 1230009.	2.0	1
328	Directly Determine an Additive-Induced Shift in Quasi-Fermi Level of TiO₂ Films in Dye-Sensitized Solar Cells. Japanese Journal of Applied Physics, 2012, 51, 10NE15.	1.5	1
329	Synthesis and optical properties of photovoltaic materials based on the indenofluorines and ambipolar dithienonaphthothiadiazol. , 2015, , .		0
330	Film Morphology Control For High Efficiency Perovskite Solar Cells. , 2015, , .		0
331	Dye-sensitized solar cells: Sensitized with triple dyes in ultraviolet to near infrared. , 2016, , .		0
332	Surface Treatment for Effective Dye Adsorption on Nanocrystalline TiO2. Japanese Journal of Applied Physics, 2012, 51, 10NE16.	1.5	0
333	4ï¼Žãƒšãƒãƒ–ã,¹ã,«ã,ãƒˆåªé™½é›»æ±ã®é«˜åŠ¹çŽ‡åŒ–æŠ€è¡“. Electrochemistry, 2016, 84, 454-459.	1.4	0
334	Study on Carrier Separation in Perovskite Solar Cells by Operando Profiling of Electrical Potential Distribution. Vacuum and Surface Science, 2019, 62, 9-14.	0.1	0