FrÃ©dÃ©ric Laquai

List of Publications by Year
in descending order

202 papers	13,809 citations	19657 61 h-index	24982 109 g-index
208 all docs	208 docs citations	208 times ranked	14404 citing authors

#	Article	IF	Citations
1	High-efficiency and air-stable P3HT-based polymer solar cells with a new non-fullerene acceptor. Nature Communications, 2016, 7, 11585.	12.8	1,053
2	Hybrid organicâ€“inorganic inks flatten the energy landscape in colloidal quantum dotÂsolids. Nature Materials, 2017, 16, 258-263.	27.5	563
3	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS₂ as a Replacement for PEDOT:PSS. Advanced Materials, 2019, 31, e1902965.	21.0	500
4	Aggregation in a High-Mobility n-Type Low-Bandgap Copolymer with Implications on Semicrystalline Morphology. Journal of the American Chemical Society, 2012, 134, 18303-18317.	13.7	395
5	A Universal Doubleâ€Side Passivation for High Openâ€Circuit Voltage in Perovskite Solar Cells: Role of Carbonyl Groups in Poly(methyl methacrylate). Advanced Energy Materials, 2018, 8, 1801208.	19.5	387
6	Effect of Morphology on Ultrafast Free Carrier Generation in Polythiophene:Fullerene Organic Solar Cells. Journal of the American Chemical Society, 2010, 132, 14866-14876.	13.7	372
7	Enhanced photocatalytic hydrogen evolution from organic semiconductor heterojunction nanoparticles. Nature Materials, 2020, 19, 559-565.	27.5	366
8	Ultrafast Exciton Dissociation Followed by Nongeminate Charge Recombination in PCDTBT:PCBM Photovoltaic Blends. Journal of the American Chemical Society, 2011, 133, 9469-9479.	13.7	266
9	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. Nature Materials, 2021, 20, 378-384.	27.5	257
10	Generation of Triplet Excited States via Photoinduced Electron Transfer in meso-anthra-BODIPY: Fluorogenic Response toward Singlet Oxygen in Solution and in Vitro. Journal of the American Chemical Society, 2017, 139, 6282-6285.	13.7	248
11	Quantum-size-tuned heterostructures enable efficient and stable inverted perovskite solar cells. Nature Photonics, 2022, 16, 352-358.	31.4	233
12	The Impact of Polymer Regioregularity on Charge Transport and Efficiency of P3HT:PCBM Photovoltaic Devices. Advanced Functional Materials, 2010, 20, 2085-2092.	14.9	226
13	Twoâ€Dimensional Sandwichâ€Type, Grapheneâ€Based Conjugated Microporous Polymers. Angewandte Chemie - International Edition, 2013, 52, 9668-9672.	13.8	220
14	Conjugated Microporous Polymers with Dimensionalityâ€Controlled Heterostructures for Green Energy Devices. Advanced Materials, 2015, 27, 3789-3796.	21.0	210
15	Long-range exciton diffusion in molecular non-fullerene acceptors. Nature Communications, 2020, 11, 5220.	12.8	204
16	Tin Oxide Electronâ€Selective Layers for Efficient, Stable, and Scalable Perovskite Solar Cells. Advanced Materials, 2021, 33, e2005504.	21.0	196
17	The Effect of Solvent Additives on Morphology and Excited-State Dynamics in PCPDTBT:PCBM Photovoltaic Blends. Journal of the American Chemical Society, 2012, 134, 10569-10583.	13.7	186
18	Excitation Energy Transfer in Organic Materials: From Fundamentals to Optoelectronic Devices. Macromolecular Rapid Communications, 2009, 30, 1203-1231.	3.9	177

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19	17.1% Efficient Singleâ€Junction Organic Solar Cells Enabled by nâ€Type Doping of the Bulkâ€Heterojunction. Advanced Science, 2020, 7, 1903419.	11.2	173
20	Polythiophene:Perylene Diimide Solar Cells â€“ the Impact of Alkylâ€Substitution on the Photovoltaic Performance. Advanced Energy Materials, 2011, 1, 297-302.	19.5	172
21	Ferroelastic Fingerprints in Methylammonium Lead Iodide Perovskite. Journal of Physical Chemistry C, 2016, 120, 5724-5731.	3.1	154
22	Key Parameters Requirements for Nonâ€Fullereneâ€Based Organic Solar Cells with Power Conversion Efficiency >20%. Advanced Science, 2019, 6, 1802028.	11.2	149
23	Multifunctional Two-Photon Active Silica-Coated Au@MnO Janus Particles for Selective Dual Functionalization and Imaging. Journal of the American Chemical Society, 2014, 136, 2473-2483.	13.7	146
24	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in Allâ€Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 4068-4081.	14.9	144
25	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. Joule, 2020, 4, 1542-1556.	24.0	143
26	Efficient and stable perovskite-silicon tandem solar cells through contact displacement by MgF _x . Science, 2022, 377, 302-306.	12.6	141
27	Perylene Tetracarboxydiimide as an Electron Acceptor in Organic Solar Cells: A Study of Charge Generation and Recombination. Journal of Physical Chemistry C, 2009, 113, 21225-21232.	3.1	140
28	Synthesis and Controlled Self-Assembly of Covalently Linked Hexa-peri-hexabenzocoronene/Perylene Diimide Dyads as Models To Study Fundamental Energy and Electron Transfer Processes. Journal of the American Chemical Society, 2012, 134, 5876-5886.	13.7	134
29	Effect of Nongeminate Recombination on Fill Factor in Polythiophene/Methanofullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2010, 1, 3500-3505.	4.6	126
30	18.4â€‰% Organic Solar Cells Using a High Ionization Energy Selfâ€Assembled Monolayer as Holeâ€Extraction Interlayer. ChemSusChem, 2021, 14, 3569-3578.	6.8	121
31	Concurrent cationic and anionic perovskite defect passivation enables 27.4% perovskite/silicon tandems with suppression of halide segregation. Joule, 2021, 5, 1566-1586.	24.0	119
32	Hollow nanoporous covalent triazine frameworks via acid vapor-assisted solid phase synthesis for enhanced visible light photoactivity. Journal of Materials Chemistry A, 2016, 4, 7555-7559.	10.3	114
33	Photo-generated carriers lose energy during extraction from polymer-fullerene solar cells. Nature Communications, 2015, 6, 8778.	12.8	100
34	28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. Joule, 2021, 5, 3169-3186.	24.0	99
35	The Effect of Solvent Additive on the Charge Generation and Photovoltaic Performance of a Solution-Processed Small Molecule:Perylene Diimide Bulk Heterojunction Solar Cell. Chemistry of Materials, 2014, 26, 4109-4118.	6.7	98
36	Selfâ€Assembly of Carboxylic Acid Appended Naphthalene Diimide Derivatives with Tunable Luminescent Color and Electrical Conductivity. Chemistry - A European Journal, 2014, 20, 760-771.	3.3	98

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37	Ï€-Bridge-Independent 2-(Benzo[c][1,2,5]thiadiazol-4-ylmethylene)malononitrile-Substituted Nonfullerene Acceptors for Efficient Bulk Heterojunction Solar Cells. Chemistry of Materials, 2016, 28, 2200-2208.	6.7	98
38	Control of triplet state generation in heavy atom-free BODIPYâ€“anthracene dyads by media polarity and structural factors. Physical Chemistry Chemical Physics, 2018, 20, 8016-8031.	2.8	96
39	Progress in Poly (3â€Hexylthiophene) Organic Solar Cells and the Influence of Its Molecular Weight on Device Performance. Advanced Energy Materials, 2018, 8, 1801001.	19.5	95
40	Impact of polymorphism on the optoelectronic properties of a low-bandgap semiconducting polymer. Nature Communications, 2019, 10, 2867.	12.8	89
41	Room-Temperature-Sputtered Nanocrystalline Nickel Oxide as Hole Transport Layer for pâ€“iâ€“n Perovskite Solar Cells. ACS Applied Energy Materials, 2018, 1, 6227-6233.	5.1	88
42	A Heteroleptic Pushâ€“Pull Substituted Iron(II) Bis(tridentate) Complex with Lowâ€Energy Chargeâ€Transfer States. Chemistry - A European Journal, 2015, 21, 704-714.	3.3	84
43	Miscibilityâ€Controlled Phase Separation in Doubleâ€Cable Conjugated Polymers for Singleâ€Component Organic Solar Cells with Efficiencies over 8â€‰%. Angewandte Chemie - International Edition, 2020, 59, 21683-21692.	13.8	82
44	A Fluorescent, Shape-Persistent Dendritic Host with Photoswitchable Guest Encapsulation and Intramolecular Energy Transfer. Journal of the American Chemical Society, 2011, 133, 11194-11204.	13.7	80
45	Charge Carrier Transport and Photogeneration in P3HT:PCBM Photovoltaic Blends. Macromolecular Rapid Communications, 2015, 36, 1001-1025.	3.9	80
46	Polymer Mainâ€Chain Substitution Effects on the Efficiency of Nonfullerene BHJ Solar Cells. Advanced Energy Materials, 2017, 7, 1700834.	19.5	80
47	Ligand-bridged charge extraction and enhanced quantum efficiency enable efficient nâ€“iâ€“p perovskite/silicon tandem solar cells. Energy and Environmental Science, 2021, 14, 4377-4390.	30.8	79
48	Organization of Charge-Carrier Pathways for Organic Electronics. Advanced Materials, 2006, 18, 2255-2259.	21.0	77
49	Thieno[3,4â€c]Pyrroleâ€4,6â€Dioneâ€Based Polymer Acceptors for High Openâ€Circuit Voltage Allâ€Polymer Solar Cells. Advanced Energy Materials, 2017, 7, 1602574.	19.5	77
50	Excited State Tuning of Bis(tridentate) Ruthenium(II) Polypyridine Chromophores by Pushâ€“Pull Effects and Bite Angle Optimization: A Comprehensive Experimental and Theoretical Study. Chemistry - A European Journal, 2013, 19, 13745-13760.	3.3	74
51	Efficient upconversion fluorescence in a blue-emitting spirobifluorene-anthracene copolymer doped with low concentrations of Pt(II)octaethylporphyrin. Journal of Chemical Physics, 2005, 123, 074902.	3.0	72
52	What determines the mobility of charge carriers in conjugated polymers?. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2007, 365, 1473-1487.	3.4	72
53	The Energy Level Conundrum of Organic Semiconductors in Solar Cells. Advanced Materials, 2022, 34, .	21.0	72
54	A High Gain and High Charge Carrier Mobility Indenofluoreneâ€Phenanthrene Copolymer for Light Amplification and Organic Lasing. Advanced Materials, 2011, 23, 894-897.	21.0	71

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55	Boron-Ï€-nitrogen-based conjugated porous polymers with multi-functions. Journal of Materials Chemistry A, 2013, 1, 13878.	10.3	67
56	Sub-ns triplet state formation by non-geminate recombination in PSBTBT:PC₇₀BM and PCPDTBT:PC₆₀BM organic solar cells. Energy and Environmental Science, 2015, 8, 1511-1522.	30.8	67
57	BODIPYâ€Pyrene and Perylene Dyads as Heavyâ€Atomâ€Free Singlet Oxygen Sensitizers. ChemPhotoChem, 2018, 2, 606-615.	3.0	66
58	Highly Efficient Electrocatalysts for Oxygen Reduction Reaction Based on 1D Ternary Doped Porous Carbons Derived from Carbon Nanotube Directed Conjugated Microporous Polymers. Advanced Functional Materials, 2016, 26, 8255-8265.	14.9	65
59	Higher Mobility and Carrier Lifetimes in Solutionâ€Processable Smallâ€Molecule Ternary Solar Cells with 11% Efficiency. Advanced Energy Materials, 2019, 9, 1802836.	19.5	65
60	Interplay Between Side Chain Pattern, Polymer Aggregation, and Charge Carrier Dynamics in PBDTTPD:PCBM Bulkâ€Heterojunction Solar Cells. Advanced Energy Materials, 2015, 5, 1401778.	19.5	64
61	Switching Off FRET in the Hybrid Assemblies of Diblock Copolymer Micelles, Quantum Dots, and Dyes by Plasmonic Nanoparticles. ACS Nano, 2012, 6, 5051-5059.	14.6	62
62	Inorganic Janus particles for biomedical applications. Beilstein Journal of Nanotechnology, 2014, 5, 2346-2362.	2.8	61
63	Triphenylamine-Based Pushâ€“Pull Ïƒâ€“C₆₀ Dyad As Photoactive Molecular Material for Single-Component Organic Solar Cells: Synthesis, Characterizations, and Photophysical Properties. Chemistry of Materials, 2018, 30, 3474-3485.	6.7	58
64	Charge Carrier Generation Followed by Triplet State Formation, Annihilation, and Carrier Recreation in PBDTTT-C/PC₆₀BM Photovoltaic Blends. Journal of Physical Chemistry C, 2015, 119, 13509-13515.	3.1	56
65	Engineering of dendritic dopant-free hole transport molecules: enabling ultrahigh fill factor in perovskite solar cells with optimized dendron construction. Science China Chemistry, 2021, 64, 41-51.	8.2	55
66	J-aggregation, its impact on excited state dynamics and unique solvent effects on macroscopic assembly of a core-substituted naphthalenediimide. Nanoscale, 2015, 7, 6729-6736.	5.6	54
67	Ultrafast Terahertz Photoconductivity of Photovoltaic Polymerâ€“Fullerene Blends: A Comparative Study Correlated with Photovoltaic Device Performance. Journal of Physical Chemistry Letters, 2014, 5, 3662-3668.	4.6	52
68	Enhancing the Charge Extraction and Stability of Perovskite Solar Cells Using Strontium Titanate (SrTiO₃) Electron Transport Layer. ACS Applied Energy Materials, 2019, 2, 8090-8097.	5.1	51
69	Arrays of Aligned Supramolecular Wires by Macroscopic Orientation of Columnar Discotic Mesophases. ACS Nano, 2012, 6, 9359-9365.	14.6	50
70	Nonequilibrium Charge Dynamics in Organic Solar Cells. Advanced Energy Materials, 2014, 4, 1301743.	19.5	50
71	Light-induced activation of boron doping in hydrogenated amorphous silicon for over 25% efficiency silicon solar cells. Nature Energy, 2022, 7, 427-437.	39.5	50
72	Optical Probes of Charge Generation and Recombination in Bulk Heterojunction Organic Solar Cells. Macromolecular Chemistry and Physics, 2010, 211, 2063-2070.	2.2	48

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73	Solvent Vapor Annealing-Mediated Crystallization Directs Charge Generation, Recombination and Extraction in BHJ Solar Cells. Chemistry of Materials, 2018, 30, 789-798.	6.7	48
74	Improved Morphology and Efficiency of nâ€“iâ€“p Planar Perovskite Solar Cells by Processing with Glycol Ether Additives. ACS Energy Letters, 2017, 2, 1960-1968.	17.4	47
75	Micron Thick Colloidal Quantum Dot Solids. Nano Letters, 2020, 20, 5284-5291.	9.1	47
76	Impact of Nonfullerene Acceptor Core Structure on the Photophysics and Efficiency of Polymer Solar Cells. ACS Energy Letters, 2018, 3, 802-811.	17.4	46
77	Ligand-Assisted Reconstruction of Colloidal Quantum Dots Decreases Trap State Density. Nano Letters, 2020, 20, 3694-3702.	9.1	46
78	Scaling-up perovskite solar cells on hydrophobic surfaces. Nano Energy, 2021, 81, 105633.	16.0	46
79	Effect of Charge Transfer in Magnetic-Plasmonic Au@MO_x (M = Mn, Fe) Heterodimers on the Kinetics of Nanocrystal Formation. Chemistry of Materials, 2015, 27, 4877-4884.	6.7	45
80	Molecular Doping of the Hole-Transporting Layer for Efficient, Single-Step-Deposited Colloidal Quantum Dot Photovoltaics. ACS Energy Letters, 2017, 2, 1952-1959.	17.4	45
81	Thermal annealing reduces geminate recombination in TQ1:N2200 all-polymer solar cells. Journal of Materials Chemistry A, 2018, 6, 7428-7438.	10.3	45
82	Terminal group engineering for small-molecule donors boosts the performance of nonfullerene organic solar cells. Journal of Materials Chemistry A, 2019, 7, 2541-2546.	10.3	45
83	Cooperative supramolecular polymerization of an amine-substituted naphthalene-diimide and its impact on excited state photophysical properties. Chemical Science, 2016, 7, 1115-1120.	7.4	44
84	Trap-Free Hot Carrier Relaxation in Leadâ€“Halide Perovskite Films. Journal of Physical Chemistry C, 2017, 121, 11201-11206.	3.1	43
85	Mixed Domains Enhance Charge Generation and Extraction in Bulkâ€Heterojunction Solar Cells with Smallâ€Molecule Donors. Advanced Energy Materials, 2018, 8, 1702941.	19.5	43
86	Comparative study of hole transport in polyspirobifluorene polymers measured by the charge-generation layer time-of-flight technique. Journal of Applied Physics, 2006, 99, 023712.	2.5	42
87	Amplified Spontaneous Emission of Poly(ladderâ€type phenylene)s â€“ The Influence of Photophysical Properties on ASE Thresholds. Advanced Functional Materials, 2008, 18, 3265-3275.	14.9	42
88	Sensitized intrinsic phosphorescence from a poly(phenylene-vinylene) derivative. Chemical Physics Letters, 2003, 375, 286-291.	2.6	40
89	Room-temperature nondispersive hole transport in a discotic liquid crystal. Applied Physics Letters, 2006, 89, 252103.	3.3	40
90	Understanding the Charge Transfer State and Energy Loss Trade-offs in Non-fullerene-Based Organic Solar Cells. ACS Energy Letters, 2021, 6, 3408-3416.	17.4	40

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91	Room-temperature multiple ligands-tailored SnO2 quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high VOC. Light: Science and Applications, 2021, 10, 239.	16.6	40
92	Novel wide-bandgap non-fullerene acceptors for efficient tandem organic solar cells. Journal of Materials Chemistry A, 2020, 8, 1164-1175.	10.3	39
93	Heat generation and mitigation in silicon solar cells and modules. Joule, 2021, 5, 631-645.	24.0	38
94	Chemical Design Rules for Nonâ€Fullerene Acceptors in Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2102363.	19.5	38
95	Mesostructured Fullerene Electrodes for Highly Efficient nâ€“iâ€“p Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 1049-1056.	17.4	37
96	Impact of Fullerene on the Photophysics of Ternary Small Molecule Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901443.	19.5	37
97	High open-circuit voltage small-molecule p-DTS(FBTTh₂)₂:ICBA bulk heterojunction solar cells â€“ morphology, excited-state dynamics, and photovoltaic performance. Journal of Materials Chemistry A, 2015, 3, 1530-1539.	10.3	35
98	Programmable and coherent crystallization of semiconductors. Science Advances, 2017, 3, e1602462.	10.3	35
99	A spiro-bifluorene based 3D electron acceptor with dicyanovinylene substitution for solution-processed non-fullerene organic solar cells. Journal of Materials Chemistry A, 2015, 3, 11086-11092.	10.3	34
100	From Recombination Dynamics to Device Performance: Quantifying the Efficiency of Exciton Dissociation, Charge Separation, and Extraction in Bulk Heterojunction Solar Cells with Fluorineâ€Substituted Polymer Donors. Advanced Energy Materials, 2018, 8, 1701678.	19.5	33
101	Photophysical Properties of a Series of Poly(ladderâ€type phenylene)s. Advanced Functional Materials, 2007, 17, 3231-3240.	14.9	32
102	Molecular Triangles: Synthesis, Selfâ€Assembly, and Blue Emission of Cycloâ€7,10â€trisâ€triphenylenyl Macrocycles. Chemistry - an Asian Journal, 2011, 6, 3001-3010.	3.3	32
103	Understanding the Role of Order in Yâ€Series Nonâ€Fullerene Solar Cells to Realize High Openâ€Circuit Voltages. Advanced Energy Materials, 2022, 12, .	19.5	32
104	Strong donorâ€“acceptor couplings in a special pair-antenna model. Chemical Communications, 2010, 46, 9176.	4.1	31
105	Charge Photogeneration in Nonâ€Fullerene Organic Solar Cells: Influence of Excess Energy and Electrostatic Interactions. Advanced Functional Materials, 2021, 31, 2007479.	14.9	31
106	Revealing the Sideâ€Chainâ€Dependent Ordering Transition of Highly Crystalline Doubleâ€Cable Conjugated Polymers. Angewandte Chemie - International Edition, 2021, 60, 25499-25507.	13.8	31
107	The Longest Î²-Unsubstituted Oligothiophenes and Their Self-Assembly in Solution. Chemistry of Materials, 2010, 22, 6453-6458.	6.7	30
108	Comparative study of conventional and hybrid blocking layers for solid-state dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2012, 14, 1607-1613.	2.8	30

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109	Tuning Reductive and Oxidative Photoinduced Electron Transfer in Amide-Linked Anthraquinone-Porphyrin-Ferrocene Architectures. European Journal of Inorganic Chemistry, 2014, 2014, 1984-2001.	2.0	30
110	Control of charge generation and recombination in ternary polymer/polymer:fullerene photovoltaic blends using amorphous and semi-crystalline copolymers as donors. Physical Chemistry Chemical Physics, 2014, 16, 20329-20337.	2.8	30
111	Efficiency-Limiting Processes in Low-Bandgap Polymer:Perylene Diimide Photovoltaic Blends. Journal of Physical Chemistry C, 2014, 118, 20077-20085.	3.1	30
112	Wideâ€Bandgap Small Molecular Acceptors Based on a Weak Electronâ€Withdrawing Moiety for Efficient Polymer Solar Cells. Solar Rrl, 2018, 2, 1800120.	5.8	30
113	Highly Crystalline Near-Infrared Acceptor Enabling Simultaneous Efficiency and Photostability Boosting in High-Performance Ternary Organic Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 48095-48102.	8.0	30
114	Buildup of Triplet-State Population in Operating TQ1:PC₇₁BM Devices Does Not Limit Their Performance. Journal of Physical Chemistry Letters, 2020, 11, 2838-2845.	4.6	30
115	Mechanistic insights into photochemical nickel-catalyzed cross-couplings enabled by energy transfer. Nature Communications, 2022, 13, 2737.	12.8	30
116	A Lutetium Cyclopentadienyl-Phosphazene Constrained Geometry Complex (CGC): First Isolobal Analogues of Group 4 Cyclopentadienyl-Silylamido CGC Systems. European Journal of Inorganic Chemistry, 2005, 2005, 3805-3807.	2.0	29
117	Dielectric switching of the nature of excited singlet state in a donor-acceptor-type polyfluorene copolymer. Physical Review B, 2010, 81, .	3.2	29
118	The Impact of Donorâ€“Acceptor Phase Separation on the Charge Carrier Dynamics in pBTTT:PCBM Photovoltaic Blends. Macromolecular Rapid Communications, 2015, 36, 1054-1060.	3.9	29
119	Performance limitations in thieno[3,4-c]pyrrole-4,6-dione-based polymer:ITIC solar cells. Physical Chemistry Chemical Physics, 2017, 19, 23990-23998.	2.8	29
120	Influence of hole transport units on the efficiency of polymer light emitting diodes. Applied Physics Letters, 2007, 90, 142109.	3.3	28
121	Correlating Emissive Nonâ€Geminate Charge Recombination with Photocurrent Generation Efficiency in Polymer/Perylene Diimide Organic Photovoltaic Blend Films. Advanced Functional Materials, 2012, 22, 2318-2326.	14.9	28
122	Doubleâ€Cable Conjugated Polymers with Pendent Nearâ€Infrared Electron Acceptors for Singleâ€Component Organic Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	13.8	28
123	P3HT Molecular Weight Determines the Performance of P3HT:Oâ€IDTBR Solar Cells. Solar Rrl, 2019, 3, 1900023.	5.8	27
124	Negligible Energy Loss During Charge Generation in Small-Molecule/Fullerene Bulk-Heterojunction Solar Cells Leads to Open-Circuit Voltage over 1.10 V. ACS Applied Energy Materials, 2019, 2, 2717-2722.	5.1	27
125	Deciphering the Role of Fluorination: Morphological Manipulation Prompts Charge Separation and Reduces Carrier Recombination in Allâ€Smallâ€Molecule Photovoltaics. Solar Rrl, 2020, 4, 1900528.	5.8	27
126	A phosphorescent hexa-peri-hexabenzocoronene platinum complex and its time-resolved spectroscopy. Synthetic Metals, 2006, 156, 1182-1186.	3.9	25

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127	Nondispersive hole transport in carbazole- and anthracene-containing polyspirobifluorene copolymers studied by the charge-generation layer time-of-flight technique. Journal of Applied Physics, 2006, 99, 033710.	2.5	24
128	Delayed Luminescence Spectroscopy of Organic Photovoltaic Binary Blend Films: Probing the Emissive Nonâ€geminate Charge Recombination. Advanced Materials, 2010, 22, 5183-5187.	21.0	24
129	Electron-Exchange-Assisted Photon Energy Up-Conversion in Thin Films of Ï€-Conjugated Polymeric Composites. Journal of Physical Chemistry Letters, 2011, 2, 1893-1899.	4.6	24
130	Enhanced photovoltaic performance of ZnO nanoparticle/poly(phenylene vinylene) hybrid photovoltaic cells by semiconducting surfactant. Organic Electronics, 2011, 12, 424-428.	2.6	24
131	Plasmon-enhanced photocurrent in quasi-solid-state dye-sensitized solar cells by the inclusion of gold/silica coreâ€“shell nanoparticles in a TiO2 photoanode. Journal of Materials Chemistry A, 2013, 1, 12627.	10.3	24
132	Triplet State Formation in Photovoltaic Blends of DPPâ€Type Copolymers and PC₇₁BM. Macromolecular Rapid Communications, 2015, 36, 1122-1128.	3.9	24
133	Multichromophoric Phthalocyanineâ€“(Perylenediimide)₈ Molecules: A Photophysical Study. Chemistry - A European Journal, 2010, 16, 10021-10029.	3.3	23
134	Effect of External Bias on Nongeminate Recombination in Polythiophene/Methanofullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2011, 2, 1736-1741.	4.6	23
135	Synthesis and characterization of donorâ€“acceptor type 4,4â€²-bis(2,1,3-benzothiadiazole)-based copolymers. Polymer, 2011, 52, 4442-4450.	3.8	23
136	Aminoferrocene and Ferrocene Amino Acid as Electron Donors in Modular Porphyrinâ€“Ferrocene and Porphyrinâ€“Ferroceneâ€“Porphyrin Conjugates. European Journal of Inorganic Chemistry, 2014, 2014, 2902-2915.	2.0	23
137	How Humidity and Light Exposure Change the Photophysics of Metal Halide Perovskite Solar Cells. Solar Rrl, 2020, 4, 2000382.	5.8	23
138	Ecoâ€Friendly Spray Deposition of Perovskite Films on Macroscale Textured Surfaces. Advanced Materials Technologies, 2020, 5, 1901009.	5.8	23
139	Impact of Acceptor Quadrupole Moment on Charge Generation and Recombination in Blends of IDTâ€Based Nonâ€Fullerene Acceptors with PCE10 as Donor Polymer. Advanced Energy Materials, 2021, 11, 2100839.	19.5	23
140	Self-assembly enables simple structure organic photovoltaics via green-solvent and open-air-printing: Closing the lab-to-fab gap. Materials Today, 2022, 55, 46-55.	14.2	23
141	Amplified spontaneous emission in optically pumped neat films of a polyfluorene derivative. Chemical Physics Letters, 2009, 478, 37-41.	2.6	22
142	Pressure-Induced Delocalization of Photoexcited States in a Semiconducting Polymer. Physical Review Letters, 2010, 105, 195501.	7.8	22
143	Charge Carrier Generation, Recombination, and Extraction in Polymerâ€“Fullerene Bulk Heterojunction Organic Solar Cells. Advances in Polymer Science, 2017, , 267-291.	0.8	20
144	Charge and Triplet Exciton Generation in Neat PC₇₀BM Films and Hybrid CuSCN:PC₇₀BM Solar Cells. Advanced Energy Materials, 2019, 9, 1802476.	19.5	20

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145	Charge Carrier Recombination at Perovskite/Hole Transport Layer Interfaces Monitored by Time-Resolved Spectroscopy. ACS Energy Letters, 2021, 6, 4155-4164.	17.4	20
146	Highâ€Efficiency Fullerene Solar Cells Enabled by a Spontaneously Formed Mesostructured CuSCNâ€Nanowire Heterointerface. Advanced Science, 2018, 5, 1700980.	11.2	19
147	Carrier Extraction from Perovskite to Polymeric Charge Transport Layers Probed by Ultrafast Transient Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 6921-6928.	4.6	19
148	Low-threshold amplified spontaneous emission in thin films of poly(tetraarylindenofluorene). Applied Physics Letters, 2005, 87, 261917.	3.3	18
149	Tuning the sensitivity of fluorophoreâ€“nitroxide radicals. Journal of Materials Chemistry, 2012, 22, 13260.	6.7	18
150	Two Channels of Charge Generation in Perylene Monoimide Solidâ€State Dyeâ€Sensitized Solar Cells. Advanced Energy Materials, 2014, 4, 1300640.	19.5	18
151	All-round perovskites. Nature Materials, 2014, 13, 429-430.	27.5	18
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