

# Frdric Laquai

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/5213762/frederic-laquai-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

187  
papers

10,094  
citations

51  
h-index

94  
g-index

208  
ext. papers

11,864  
ext. citations

12.1  
avg, IF

6.26  
L-index

#	Paper	IF	Citations
187	A Universal Cosolvent Evaporation Strategy Enables Direct Printing of Perovskite Single Crystals for Optoelectronic Device Applications.. <i>Advanced Materials</i> , <b>2022</b> , e2109862	24	1
186	Photo-induced enhancement of lattice fluctuations in metal-halide perovskites.. <i>Nature Communications</i> , <b>2022</b> , 13, 1019	17.4	0
185	Mechanistic insights into photochemical nickel-catalyzed cross-couplings enabled by energy transfer.. <i>Nature Communications</i> , <b>2022</b> , 13, 2737	17.4	4
184	28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. <i>Joule</i> , <b>2021</b> ,	27.8	15
183	Chemical Design Rules for Non-Fullerene Acceptors in Organic Solar Cells (Adv. Energy Mater. 44/2021). <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2170175	21.8	0
182	Room-temperature multiple ligands-tailored SnO quantum dots endow in situ dual-interface binding for upscaling efficient perovskite photovoltaics with high V. <i>Light: Science and Applications</i> , <b>2021</b> , 10, 239	16.7	10
181	Uphill and downhill charge generation from charge transfer to charge separated states in organic solar cells. <i>Journal of Materials Chemistry C</i> , <b>2021</b> , 9, 14463-14489	7.1	1
180	Printed Memtransistor Utilizing a Hybrid Perovskite/Organic Heterojunction Channel. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 51592-51601	9.5	4
179	Impact of Photoluminescence Reabsorption in Metal-Halide Perovskite Solar Cells. <i>Solar Rrl</i> , <b>2021</b> , 5, 2100029	7.1	4
178	Heat generation and mitigation in silicon solar cells and modules. <i>Joule</i> , <b>2021</b> , 5, 631-645	27.8	6
177	Tin Oxide Electron-Selective Layers for Efficient, Stable, and Scalable Perovskite Solar Cells. <i>Advanced Materials</i> , <b>2021</b> , 33, e2005504	24	70
176	18.4 % Organic Solar Cells Using a High Ionization Energy Self-Assembled Monolayer as Hole-Extraction Interlayer. <i>ChemSusChem</i> , <b>2021</b> , 14, 3569-3578	8.3	54
175	Impact of Acceptor Quadrupole Moment on Charge Generation and Recombination in Blends of IDT-Based Non-Fullerene Acceptors with PCE10 as Donor Polymer. <i>Advanced Energy Materials</i> , <b>2021</b> , 11, 2100839	21.8	6
174	Concurrent cationic and anionic perovskite defect passivation enables 27.4% perovskite/silicon tandems with suppression of halide segregation. <i>Joule</i> , <b>2021</b> , 5, 1566-1586	27.8	43
173	Engineering of dendritic dopant-free hole transport molecules: enabling ultrahigh fill factor in perovskite solar cells with optimized dendron construction. <i>Science China Chemistry</i> , <b>2021</b> , 64, 41-51	7.9	24
172	Scaling-up perovskite solar cells on hydrophobic surfaces. <i>Nano Energy</i> , <b>2021</b> , 81, 105633	17.1	15
171	Charge Photogeneration in Non-Fullerene Organic Solar Cells: Influence of Excess Energy and Electrostatic Interactions. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2007479	15.6	16

170	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. <i>Nature Materials</i> , <b>2021</b> , 20, 378-384	27	108
169	The role of spin in the degradation of organic photovoltaics. <i>Nature Communications</i> , <b>2021</b> , 12, 471	17.4	5
168	Revealing the Side-Chain-Dependent Ordering Transition of Highly Crystalline Double-Cable Conjugated Polymers. <i>Angewandte Chemie - International Edition</i> , <b>2021</b> , 60, 25499-25507	16.4	6
167	Micron Thick Colloidal Quantum Dot Solids. <i>Nano Letters</i> , <b>2020</b> , 20, 5284-5291	11.5	23
166	Ultrafast Charge Dynamics in Dilute-Donor versus Highly Intermixed TAPC:C Organic Solar Cell Blends. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 5610-5617	6.4	8
165	Monolayer Perovskite Bridges Enable Strong Quantum Dot Coupling for Efficient Solar Cells. <i>Joule</i> , <b>2020</b> , 4, 1542-1556	27.8	85
164	Buildup of Triplet-State Population in Operating TQ1:PCBM Devices Does Not Limit Their Performance. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 2838-2845	6.4	14
163	17.1% Efficient Single-Junction Organic Solar Cells Enabled by n-Type Doping of the Bulk-Heterojunction. <i>Advanced Science</i> , <b>2020</b> , 7, 1903419	13.6	110
162	Eco-Friendly Spray Deposition of Perovskite Films on Macroscale Textured Surfaces. <i>Advanced Materials Technologies</i> , <b>2020</b> , 5, 1901009	6.8	15
161	Impact of Cesium/Rubidium Incorporation on the Photophysics of Multiple-Cation Lead Halide Perovskites. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000072	7.1	8
160	Ligand-Assisted Reconstruction of Colloidal Quantum Dots Decreases Trap State Density. <i>Nano Letters</i> , <b>2020</b> , 20, 3694-3702	11.5	27
159	Enhanced photocatalytic hydrogen evolution from organic semiconductor heterojunction nanoparticles. <i>Nature Materials</i> , <b>2020</b> , 19, 559-565	27	171
158	Impact of Residual Lead Iodide on Photophysical Properties of Lead Triiodide Perovskite Solar Cells. <i>Energy Technology</i> , <b>2020</b> , 8, 1900627	3.5	8
157	Design, Synthesis and Selective Functionalization of a Rigid, Truxene Derived Pure Blue-Emitting Chromophore. <i>ChemistrySelect</i> , <b>2020</b> , 5, 109-116	1.8	1
156	Novel wide-bandgap non-fullerene acceptors for efficient tandem organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 1164-1175	13	28
155	Afterglow Effects as a Tool to Screen Emissive Nongeminate Charge Recombination Processes in Organic Photovoltaic Composites. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2020</b> , 12, 2695-2707	9.5	3
154	Deciphering the Role of Fluorination: Morphological Manipulation Prompts Charge Separation and Reduces Carrier Recombination in All-Small-Molecule Photovoltaics. <i>Solar Rrl</i> , <b>2020</b> , 4, 1900528	7.1	21
153	Long-range exciton diffusion in molecular non-fullerene acceptors. <i>Nature Communications</i> , <b>2020</b> , 11, 5220	17.4	87

152	How Humidity and Light Exposure Change the Photophysics of Metal Halide Perovskite Solar Cells. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000382	7.1	13
151	Miscibility-Controlled Phase Separation in Double-Cable Conjugated Polymers for Single-Component Organic Solar Cells with Efficiencies over 8 . <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 21683-21692	16.4	45
150	Miscibility-Controlled Phase Separation in Double-Cable Conjugated Polymers for Single-Component Organic Solar Cells with Efficiencies over 8 %. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 21867-21876 <sup>11</sup>	3.6	11
149	Quantification of Photophysical Processes in All-Polymer Bulk Heterojunction Solar Cells. <i>Solar Rrl</i> , <b>2020</b> , 4, 2000181	7.1	3
148	Thienyl Sidechain Substitution and Backbone Fluorination of Benzodithiophene-Based Donor Polymers Concertedly Minimize Carrier Losses in ITIC-Based Organic Solar Cells. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 10420-10429	3.8	7
147	Terminal group engineering for small-molecule donors boosts the performance of nonfullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 2541-2546	13	38
146	Direct and Energy-Transfer-Mediated Charge-Transfer State Formation and Recombination in Triangulene-Spacer-Perylenediimide Multichromophores: Lessons for Photovoltaic Applications. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 16602-16613	3.8	8
145	Triarylphosphine Oxide as Cathode Interfacial Material for Inverted Perovskite Solar Cells. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1900434	4.6	11
144	P3HT Molecular Weight Determines the Performance of P3HT:O-IDTBR Solar Cells. <i>Solar Rrl</i> , <b>2019</b> , 3, 1900023	7.1	21
143	Key Parameters Requirements for Non-Fullerene-Based Organic Solar Cells with Power Conversion Efficiency >20. <i>Advanced Science</i> , <b>2019</b> , 6, 1802028	13.6	107
142	Negligible Energy Loss During Charge Generation in Small-Molecule/Fullerene Bulk-Heterojunction Solar Cells Leads to Open-Circuit Voltage over 1.10 V. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 2717-2722	6.1	20
141	Impact of Fullerene on the Photophysics of Ternary Small Molecule Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901443	21.8	27
140	Impact of polymorphism on the optoelectronic properties of a low-bandgap semiconducting polymer. <i>Nature Communications</i> , <b>2019</b> , 10, 2867	17.4	43
139	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS as a Replacement for PEDOT:PSS. <i>Advanced Materials</i> , <b>2019</b> , 31, e1902965	24	384
138	Enhancing the Charge Extraction and Stability of Perovskite Solar Cells Using Strontium Titanate (SrTiO <sub>3</sub> ) Electron Transport Layer. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 8090-8097	6.1	26
137	Highly Crystalline Near-Infrared Acceptor Enabling Simultaneous Efficiency and Photostability Boosting in High-Performance Ternary Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 48095-48102	9.5	23
136	Carrier Extraction from Perovskite to Polymeric Charge Transport Layers Probed by Ultrafast Transient Absorption Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 6921-6928	6.4	11
135	Higher Mobility and Carrier Lifetimes in Solution-Processable Small-Molecule Ternary Solar Cells with 11% Efficiency. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1802836	21.8	52

134	Charge and Triplet Exciton Generation in Neat PC70BM Films and Hybrid CuSCN:PC70BM Solar Cells. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1802476	21.8	17
133	Impact of Nonfullerene Acceptor Core Structure on the Photophysics and Efficiency of Polymer Solar Cells. <i>ACS Energy Letters</i> , <b>2018</b> , 3, 802-811	20.1	38
132	Triphenylamine-Based PushPull T60 Dyad As Photoactive Molecular Material for Single-Component Organic Solar Cells: Synthesis, Characterizations, and Photophysical Properties. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 3474-3485	9.6	43
131	Mixed Domains Enhance Charge Generation and Extraction in Bulk-Heterojunction Solar Cells with Small-Molecule Donors. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702941	21.8	34
130	Organic solar cells based on anthracene-containing PPEBPs and non-fullerene acceptors. <i>Chemical Papers</i> , <b>2018</b> , 72, 1769-1778	1.9	5
129	Efficiency-limiting processes in cyclopentadithiophene-bridged donor-acceptor-type dyes for solid-state dye-sensitized solar cells. <i>Journal of Chemical Physics</i> , <b>2018</b> , 148, 044703	3.9	12
128	High-Efficiency Fullerene Solar Cells Enabled by a Spontaneously Formed Mesostuctured CuSCN-Nanowire Heterointerface. <i>Advanced Science</i> , <b>2018</b> , 5, 1700980	13.6	15
127	Control of triplet state generation in heavy atom-free BODIPY-anthracene dyads by media polarity and structural factors. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 8016-8031	3.6	69
126	Solvent Vapor Annealing-Mediated Crystallization Directs Charge Generation, Recombination and Extraction in BHJ Solar Cells. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 789-798	9.6	37
125	Charge Photogeneration and Recombination in Mesostuctured CuSCN-Nanowire/PC70BM Solar Cells. <i>Solar Rrl</i> , <b>2018</b> , 2, 1800095	7.1	7
124	BODIPY-Pyrene and Perylene Dyads as Heavy-Atom-Free Singlet Oxygen Sensitizers. <i>ChemPhotoChem</i> , <b>2018</b> , 2, 606-615	3.3	37
123	Thermal annealing reduces geminate recombination in TQ1:N2200 all-polymer solar cells. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 7428-7438	13	30
122	From Recombination Dynamics to Device Performance: Quantifying the Efficiency of Exciton Dissociation, Charge Separation, and Extraction in Bulk Heterojunction Solar Cells with Fluorine-Substituted Polymer Donors. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1701678	21.8	24
121	Wide-Bandgap Small Molecular Acceptors Based on a Weak Electron-Withdrawing Moiety for Efficient Polymer Solar Cells. <i>Solar Rrl</i> , <b>2018</b> , 2, 1800120	7.1	24
120	Impact of Structural Polymorphs on Charge Collection and Nongeminate Recombination in Organic Photovoltaic Devices. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 29141-29149	3.8	2
119	Room-Temperature-Sputtered Nanocrystalline Nickel Oxide as Hole Transport Layer for pTi Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2018</b> , 1, 6227-6233	6.1	57
118	A Universal Double-Side Passivation for High Open-Circuit Voltage in Perovskite Solar Cells: Role of Carbonyl Groups in Poly(methyl methacrylate). <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801208	21.8	268
117	Efficient long-range electron transfer processes in polyfluorene-peryene diimide blends. <i>Nanoscale</i> , <b>2018</b> , 10, 10934-10944	7.7	6

116	Progress in Poly (3-Hexylthiophene) Organic Solar Cells and the Influence of Its Molecular Weight on Device Performance. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1801001	21.8	72
115	Programmable and coherent crystallization of semiconductors. <i>Science Advances</i> , <b>2017</b> , 3, e1602462	14.3	27
114	Generation of Triplet Excited States via Photoinduced Electron Transfer in meso-anthra-BODIPY: Fluorogenic Response toward Singlet Oxygen in Solution and in Vitro. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 6282-6285	16.4	179
113	Thieno[3,4-c]Pyrrole-4,6-Dione-Based Polymer Acceptors for High Open-Circuit Voltage All-Polymer Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1602574	21.8	65
112	Trap-Free Hot Carrier Relaxation in Lead Halide Perovskite Films. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 11201-11206	3.8	36
111	Charge Carrier Generation, Recombination, and Extraction in Polymer Fullerene Bulk Heterojunction Organic Solar Cells. <i>Advances in Polymer Science</i> , <b>2017</b> , 267-291	1.3	14
110	Polymer Main-Chain Substitution Effects on the Efficiency of Nonfullerene BHJ Solar Cells. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1700834	21.8	64
109	Molecular Doping of the Hole-Transporting Layer for Efficient, Single-Step-Deposited Colloidal Quantum Dot Photovoltaics. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 1952-1959	20.1	39
108	Improved Morphology and Efficiency of n-i-p Planar Perovskite Solar Cells by Processing with Glycol Ether Additives. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 1960-1968	20.1	39
107	Performance limitations in thieno[3,4-c]pyrrole-4,6-dione-based polymer:ITIC solar cells. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 23990-23998	3.6	27
106	Hybrid organic-inorganic inks flatten the energy landscape in colloidal quantum dot solids. <i>Nature Materials</i> , <b>2017</b> , 16, 258-263	27	432
105	High-efficiency and air-stable P3HT-based polymer solar cells with a new non-fullerene acceptor. <i>Nature Communications</i> , <b>2016</b> , 7, 11585	17.4	903
104	Mesostructured Fullerene Electrodes for Highly Efficient n-i-p Perovskite Solar Cells. <i>ACS Energy Letters</i> , <b>2016</b> , 1, 1049-1056	20.1	35
103	Ferroelastic Fingerprints in Methylammonium Lead Iodide Perovskite. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 5724-5731	3.8	118
102	Cooperative supramolecular polymerization of an amine-substituted naphthalene-diimide and its impact on excited state photophysical properties. <i>Chemical Science</i> , <b>2016</b> , 7, 1115-1120	9.4	37
101	Bridge-Independent 2-(Benzo[c][1,2,5]thiadiazol-4-ylmethylene)malononitrile-Substituted Nonfullerene Acceptors for Efficient Bulk Heterojunction Solar Cells. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 2200-2208	9.6	86
100	Synthesis of Functional Block Copolymers Carrying One Poly(p-phenylenevinylene) and One Nonconjugated Block in a Facile One-Pot Procedure. <i>Macromolecules</i> , <b>2016</b> , 49, 2085-2095	5.5	12
99	Hollow nanoporous covalent triazine frameworks via acid vapor-assisted solid phase synthesis for enhanced visible light photoactivity. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 7555-7559	13	84



98	Loss mechanisms in organic solar cells based on perylene diimide acceptors studied by time-resolved photoluminescence <b>2016</b> ,		1
97	Highly Efficient Electrocatalysts for Oxygen Reduction Reaction Based on 1D Ternary Doped Porous Carbons Derived from Carbon Nanotube Directed Conjugated Microporous Polymers. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 8255-8265	15.6	55
96	Sub-ns triplet state formation by non-geminate recombination in PSBTBT:PC70BM and PCPDTBT:PC60BM organic solar cells. <i>Energy and Environmental Science</i> , <b>2015</b> , 8, 1511-1522	35.4	63
95	J-aggregation, its impact on excited state dynamics and unique solvent effects on macroscopic assembly of a core-substituted naphthalenediimide. <i>Nanoscale</i> , <b>2015</b> , 7, 6729-36	7.7	44
94	A spiro-bifluorene based 3D electron acceptor with dicyanovinylene substitution for solution-processed non-fullerene organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 11086-11092	13	30
93	Triplet state formation in photovoltaic blends of DPP-type copolymers and PC71 BM. <i>Macromolecular Rapid Communications</i> , <b>2015</b> , 36, 1122-8	4.8	21
92	Charge carrier transport and photogeneration in P3HT:PCBM photovoltaic blends. <i>Macromolecular Rapid Communications</i> , <b>2015</b> , 36, 1001-25	4.8	64
91	The impact of donor-acceptor phase separation on the charge carrier dynamics in pBTTT:PCBM photovoltaic blends. <i>Macromolecular Rapid Communications</i> , <b>2015</b> , 36, 1054-60	4.8	27
90	Interplay between singlet and triplet excited states in a conformationally locked donor-acceptor dyad. <i>Dalton Transactions</i> , <b>2015</b> , 44, 19207-17	4.3	7
89	Application of hybrid blocking layers in solid-state dye-sensitized solar cells. <i>SpringerPlus</i> , <b>2015</b> , 4, 502		1
88	Photo-generated carriers lose energy during extraction from polymer-fullerene solar cells. <i>Nature Communications</i> , <b>2015</b> , 6, 8778	17.4	89
87	Bimolecular crystals with an intercalated structure improve poly(p-phenylenevinylene)-based organic photovoltaic cells. <i>ChemSusChem</i> , <b>2015</b> , 8, 337-44	8.3	10
86	High open-circuit voltage small-molecule p-DTS(FBTTh2)2:ICBA bulk heterojunction solar cells □ morphology, excited-state dynamics, and photovoltaic performance. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 1530-1539	13	33
85	Conjugated microporous polymers with dimensionality-controlled heterostructures for green energy devices. <i>Advanced Materials</i> , <b>2015</b> , 27, 3789-96	24	176
84	Effect of Charge Transfer in Magnetic-Plasmonic [email protected]x (M = Mn, Fe) Heterodimers on the Kinetics of Nanocrystal Formation. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 4877-4884	9.6	37
83	Charge Carrier Generation Followed by Triplet State Formation, Annihilation, and Carrier Recreation in PBDTTT-C/PC60BM Photovoltaic Blends. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 13509-13515	3.8	45
82	A heteroleptic push-pull substituted iron(II) bis(tridentate) complex with low-energy charge-transfer states. <i>Chemistry - A European Journal</i> , <b>2015</b> , 21, 704-14	4.8	69
81	Interplay Between Side Chain Pattern, Polymer Aggregation, and Charge Carrier Dynamics in PBDTPD:PCBM Bulk-Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1401778	21.8	62

80	Nonequilibrium Charge Dynamics in Organic Solar Cells. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1301743	21.8	44
79	Materials for lasers: All-round perovskites. <i>Nature Materials</i> , <b>2014</b> , 13, 429-30	27	14
78	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , <b>2014</b> , 24, 4068-4081	15.6	129
77	Tuning Reductive and Oxidative Photoinduced Electron Transfer in Amide-Linked AnthraquinonePorphyrinFerrocene Architectures. <i>European Journal of Inorganic Chemistry</i> , <b>2014</b> , 2014, 1984-2001	2.3	26
76	Influence of triplet excitons on the lifetime of polymer-based organic light emitting diodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2014</b> , 211, 2035-2039	1.6	4
75	Ultrafast Terahertz Photoconductivity of Photovoltaic Polymer-Fullerene Blends: A Comparative Study Correlated with Photovoltaic Device Performance. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 3662-8	6.4	40
74	Control of charge generation and recombination in ternary polymer/polymer:fullerene photovoltaic blends using amorphous and semi-crystalline copolymers as donors. <i>Physical Chemistry Chemical Physics</i> , <b>2014</b> , 16, 20329-37	3.6	30
73	Aminoferrocene and Ferrocene Amino Acid as Electron Donors in Modular PorphyrinFerrocene and PorphyrinFerrocenePorphyrin Conjugates. <i>European Journal of Inorganic Chemistry</i> , <b>2014</b> , 2014, 2902-2915	2.3	20
72	Efficiency-Limiting Processes in Low-Bandgap Polymer:Perylene Diimide Photovoltaic Blends. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 20077-20085	3.8	28
71	Modification of the active layer/PEDOT:PSS interface by solvent additives resulting in improvement of the performance of organic solar cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 11068-81	9.5	15
70	The Effect of Solvent Additive on the Charge Generation and Photovoltaic Performance of a Solution-Processed Small Molecule:Perylene Diimide Bulk Heterojunction Solar Cell. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 4109-4118	9.6	93
69	Multifunctional two-photon active silica-coated Au@MnO Janus particles for selective dual functionalization and imaging. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 2473-83	16.4	133
68	Self-assembly of carboxylic acid appended naphthalene diimide derivatives with tunable luminescent color and electrical conductivity. <i>Chemistry - A European Journal</i> , <b>2014</b> , 20, 760-71	4.8	80
67	Inorganic Janus particles for biomedical applications. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 2346-62	4.8	48
66	Two Channels of Charge Generation in Perylene Monoimide Solid-State Dye-Sensitized Solar Cells. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1300640	21.8	18
65	Observing Charge Dynamics in Surface Reactions by Time-Resolved Stark Effects. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 9171-9177	3.8	13
64	Two-dimensional sandwich-type, graphene-based conjugated microporous polymers. <i>Angewandte Chemie - International Edition</i> , <b>2013</b> , 52, 9668-72	16.4	194
63	Excited state tuning of bis(tridentate) ruthenium(II) polypyridine chromophores by push-pull effects and bite angle optimization: a comprehensive experimental and theoretical study. <i>Chemistry - A European Journal</i> , <b>2013</b> , 19, 13745-60	4.8	69



62	Plasmon-enhanced photocurrent in quasi-solid-state dye-sensitized solar cells by the inclusion of gold/silica core-shell nanoparticles in a TiO <sub>2</sub> photoanode. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 12627-12633	13	24
61	Energy and Charge Transfer <b>2013</b> , 107-143		1
60	Porphyrin amino acids-amide coupling, redox and photophysical properties of bis(porphyrin) amides. <i>Dalton Transactions</i> , <b>2013</b> , 42, 9727-39	4.3	10
59	Boron-Nitrogen-based conjugated porous polymers with multi-functions. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 13878	13	48
58	Comparative study of conventional and hybrid blocking layers for solid-state dye-sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 1607-13	3.6	29
57	Arrays of aligned supramolecular wires by macroscopic orientation of columnar discotic mesophases. <i>ACS Nano</i> , <b>2012</b> , 6, 9359-65	16.7	48
56	Correlation of micellar structures with surface-plasmon-coupled fluorescence in a strategy for fluorescence enhancement. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 24727		11
55	Aggregation in a high-mobility n-type low-bandgap copolymer with implications on semicrystalline morphology. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 18303-17	16.4	329
54	Parallel Pool Analysis of Transient Spectroscopy Reveals Origins of and Perspectives for ZnO Hybrid Solar Cell Performance Enhancement Using Semiconducting Surfactants. <i>Journal of Physical Chemistry Letters</i> , <b>2012</b> , 3, 2665-70	6.4	6
53	Synthesis and controlled self-assembly of covalently linked hexa-peri-hexabenzocoronene/perylene diimide dyads as models to study fundamental energy and electron transfer processes. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 5876-86	16.4	124
52	Switching off FRET in the hybrid assemblies of diblock copolymer micelles, quantum dots, and dyes by plasmonic nanoparticles. <i>ACS Nano</i> , <b>2012</b> , 6, 5051-9	16.7	60
51	Facile synthesis of 5,8-linked quinoline-based copolymers. <i>Polymer International</i> , <b>2012</b> , 61, 1318-1325	3.3	14
50	Correlating Emissive Non-Geminate Charge Recombination with Photocurrent Generation Efficiency in Polymer/Perylene Diimide Organic Photovoltaic Blend Films. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 2318-2326	15.6	28
49	Tuning the sensitivity of fluorophore-nitroxide radicals. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 13260		16
48	The effect of solvent additives on morphology and excited-state dynamics in PCPDTBT:PCBM photovoltaic blends. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 10569-83	16.4	174
47	Controlled energy shuttling in terpolymers enabling independent optimization of absorption and transport properties in organic solar cell materials. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 231104	3.4	1
46	Electron-Exchange-Assisted Photon Energy Up-Conversion in Thin Films of $\pi$ -Conjugated Polymeric Composites. <i>Journal of Physical Chemistry Letters</i> , <b>2011</b> , 2, 1893-1899	6.4	22
45	Ultrafast exciton dissociation followed by nongeminate charge recombination in PCDTBT:PCBM photovoltaic blends. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 9469-79	16.4	242

44	Synthesis and characterization of donor-acceptor type 4,4'-bis(2,1,3-benzothiadiazole)-based copolymers. <i>Polymer</i> , <b>2011</b> , 52, 4442-4450	3.9	20
43	Molecular triangles: synthesis, self-assembly, and blue emission of cyclo-7,10-tris-triphenylenyl macrocycles. <i>Chemistry - an Asian Journal</i> , <b>2011</b> , 6, 3001-10	4.5	31
42	Room-Temperature Phase Demixing in Bulk Heterojunction Layers of Solution-Processed Organic Photodetectors: the Effect of Active Layer Ageing on the Device Electro-optical Properties. <i>Advanced Functional Materials</i> , <b>2011</b> , 21, 1355-1363	15.6	15
41	A high gain and high charge carrier mobility indenofluorene-phenanthrene copolymer for light amplification and organic lasing. <i>Advanced Materials</i> , <b>2011</b> , 23, 894-7	24	68
40	Polythiophene:Perylene Diimide Solar Cells II: The Impact of Alkyl-Substitution on the Photovoltaic Performance. <i>Advanced Energy Materials</i> , <b>2011</b> , 1, 297-302	21.8	163
39	Effect of External Bias on Nongeminate Recombination in Polythiophene/Methanofullerene Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , <b>2011</b> , 2, 1736-1741	6.4	22
38	A fluorescent, shape-persistent dendritic host with photoswitchable guest encapsulation and intramolecular energy transfer. <i>Journal of the American Chemical Society</i> , <b>2011</b> , 133, 11194-204	16.4	74
37	Enhanced photovoltaic performance of ZnO nanoparticle/poly(phenylene vinylene) hybrid photovoltaic cells by semiconducting surfactant. <i>Organic Electronics</i> , <b>2011</b> , 12, 424-428	3.5	23
36	Pressure-induced delocalization of photoexcited states in a semiconducting polymer. <i>Physical Review Letters</i> , <b>2010</b> , 105, 195501	7.4	17
35	Dielectric switching of the nature of excited singlet state in a donor-acceptor-type polyfluorene copolymer. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	26
34	The Longest $\pi$ -Unsubstituted Oligothiophenes and Their Self-Assembly in Solution. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 6453-6458	9.6	27
33	Strong donor-acceptor couplings in a special pair-antenna model. <i>Chemical Communications</i> , <b>2010</b> , 46, 9176-8	5.8	29
32	Effect of Nongeminate Recombination on Fill Factor in Polythiophene/Methanofullerene Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , <b>2010</b> , 1, 3500-3505	6.4	119
31	Effect of morphology on ultrafast free carrier generation in polythiophene:fullerene organic solar cells. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 14866-76	16.4	339
30	The Impact of Polymer Regioregularity on Charge Transport and Efficiency of P3HT:PCBM Photovoltaic Devices. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 2085-2092	15.6	207
29	Delayed luminescence spectroscopy of organic photovoltaic binary blend films: Probing the emissive non-geminate charge recombination. <i>Advanced Materials</i> , <b>2010</b> , 22, 5183-7	24	24
28	Multichromophoric phthalocyanine-(perylene)diimide(8) molecules: a photophysical study. <i>Chemistry - A European Journal</i> , <b>2010</b> , 16, 10021-9	4.8	22
27	Optical Probes of Charge Generation and Recombination in Bulk Heterojunction Organic Solar Cells. <i>Macromolecular Chemistry and Physics</i> , <b>2010</b> , 211, 2063-2070	2.6	44

26	Excitation energy transfer in organic materials: from fundamentals to optoelectronic devices. <i>Macromolecular Rapid Communications</i> , <b>2009</b> , 30, 1203-31	4.8	160
25	Amplified spontaneous emission in optically pumped neat films of a polyfluorene derivative. <i>Chemical Physics Letters</i> , <b>2009</b> , 478, 37-41	2.5	19
24	Perylene Tetracarboxydiimide as an Electron Acceptor in Organic Solar Cells: A Study of Charge Generation and Recombination. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 21225-21232	3.8	134
23	Managing Photoexcited States in Conjugated Polymers. <i>Macromolecular Symposia</i> , <b>2008</b> , 268, 1-8	0.8	3
22	Amplified Spontaneous Emission of Poly(ladder-type phenylene)s The Influence of Photophysical Properties on ASE Thresholds. <i>Advanced Functional Materials</i> , <b>2008</b> , 18, 3265-3275	15.6	41
21	Photophysical Properties of a Series of Poly(ladder-type phenylene)s. <i>Advanced Functional Materials</i> , <b>2007</b> , 17, 3231-3240	15.6	30
20	What determines the mobility of charge carriers in conjugated polymers?. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2007</b> , 365, 1473-87	3	65
19	Influence of hole transport units on the efficiency of polymer light emitting diodes. <i>Applied Physics Letters</i> , <b>2007</b> , 90, 142109	3.4	27
18	Organization of Charge-Carrier Pathways for Organic Electronics. <i>Advanced Materials</i> , <b>2006</b> , 18, 2255-2259	7.1	75
17	Comparative study of hole transport in polyspirobifluorene polymers measured by the charge-generation layer time-of-flight technique. <i>Journal of Applied Physics</i> , <b>2006</b> , 99, 023712	2.5	42
16	Room-temperature nondispersive hole transport in a discotic liquid crystal. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 252103	3.4	39
15	Nondispersive hole transport in carbazole- and anthracene-containing polyspirobifluorene copolymers studied by the charge-generation layer time-of-flight technique. <i>Journal of Applied Physics</i> , <b>2006</b> , 99, 033710	2.5	24
14	A phosphorescent hexa-peri-hexabenzocoronene platinum complex and its time-resolved spectroscopy. <i>Synthetic Metals</i> , <b>2006</b> , 156, 1182-1186	3.6	24
13	Efficient upconversion fluorescence in a blue-emitting spirobifluorene-anthracene copolymer doped with low concentrations of Pt(II)octaethylporphyrin. <i>Journal of Chemical Physics</i> , <b>2005</b> , 123, 074902	3.9	64
12	Low-threshold amplified spontaneous emission in thin films of poly(tetraaryllindenofluorene). <i>Applied Physics Letters</i> , <b>2005</b> , 87, 261917	3.4	17
11	A Lutetium Cyclopentadienyl-Phosphazene Constrained Geometry Complex (CGC): First Isolobal Analogues of Group 4 Cyclopentadienyl-Silylamido CGC Systems. <i>European Journal of Inorganic Chemistry</i> , <b>2005</b> , 2005, 3805-3807	2.3	27
10	Sensitized intrinsic phosphorescence from a poly(phenylene-vinylene) derivative. <i>Chemical Physics Letters</i> , <b>2003</b> , 375, 286-291	2.5	39
9	Effect of Quencher, Geometry, and Light Outcoupling on the Determination of Exciton Diffusion Length in Nonfullerene Acceptors. <i>Solar Rrl</i> , 2100822	7.1	

8	Understanding the Role of Order in Y-Series Non-Fullerene Solar Cells to Realize High Open-Circuit Voltages. <i>Advanced Energy Materials</i> ,2103422	21.8	2
7	Trace Solvent Additives Enhance Charge Generation in Layer-by-Layer Coated Organic Solar Cells. <i>Small Structures</i> ,	8.7	4
6	Chemical Design Rules for Non-Fullerene Acceptors in Organic Solar Cells. <i>Advanced Energy Materials</i> ,2102363	21.8	7
5	Charge Carrier Recombination at Perovskite/Hole Transport Layer Interfaces Monitored by Time-Resolved Spectroscopy. <i>ACS Energy Letters</i> ,4155-4164	20.1	2
4	Efficiency Limits in Wide-Bandgap Ge-Containing Donor Polymer:Nonfullerene Acceptor Bulk Heterojunction Solar Cells. <i>Physica Status Solidi - Rapid Research Letters</i> ,2100206	2.5	1
3	Understanding the Charge Transfer State and Energy Loss Trade-offs in Non-fullerene-Based Organic Solar Cells. <i>ACS Energy Letters</i> ,3408-3416	20.1	13
2	Ligand-bridged charge extraction and enhanced quantum efficiency enable efficient n-i-p perovskite/silicon tandem solar cells. <i>Energy and Environmental Science</i> ,	35.4	26
1	Quantum-size-tuned heterostructures enable efficient and stable inverted perovskite solar cells. <i>Nature Photonics</i> ,	33.9	35