Jenny Nelson

List of Publications by Year
in descending order

377 papers	43,704 citations	1532 106 h-index	2506 196 g-index
386 all docs	386 docs citations	386 times ranked	28452 citing authors

#	Article	IF	Citations
1	A strong regioregularity effect in self-organizing conjugated polymer films and high-efficiency polythiophene:fullerene solar cells. Nature Materials, 2006, 5, 197-203.	13.3	2,208
2	Morphology evolution via self-organization and lateral and vertical diffusion in polymer:fullerene solar cell blends. Nature Materials, 2008, 7, 158-164.	13.3	1,396
3	Single-junction organic solar cells with over 19% efficiency enabled by a refined double-fibril network morphology. Nature Materials, 2022, 21, 656-663.	13.3	1,214
4	Reversible Hydration of CH₃NH₃PbI₃ in Films, Single Crystals, and Solar Cells. Chemistry of Materials, 2015, 27, 3397-3407.	3.2	1,133
5	Reducing the efficiencyâ€“stabilityâ€“cost gap of organic photovoltaics with highly efficient and stable small molecule acceptor ternary solar cells. Nature Materials, 2017, 16, 363-369.	13.3	921
6	Degradation of organic solar cells due to air exposure. Solar Energy Materials and Solar Cells, 2006, 90, 3520-3530.	3.0	660
7	Evidence for ion migration in hybrid perovskite solar cells with minimal hysteresis. Nature Communications, 2016, 7, 13831.	5.8	616
8	Charge Carrier Formation in Polythiophene/Fullerene Blend Films Studied by Transient Absorption Spectroscopy. Journal of the American Chemical Society, 2008, 130, 3030-3042.	6.6	602
9	Continuous-time random-walk model of electron transport in nanocrystallineTiO2electrodes. Physical Review B, 1999, 59, 15374-15380.	1.1	599
10	Device annealing effect in organic solar cells with blends of regioregular poly(3-hexylthiophene) and soluble fullerene. Applied Physics Letters, 2005, 86, 063502.	1.5	598
11	Factors Limiting Device Efficiency in Organic Photovoltaics. Advanced Materials, 2013, 25, 1847-1858.	11.1	550
12	Hybrid Polymer/Zinc Oxide Photovoltaic Devices with Vertically Oriented ZnO Nanorods and an Amphiphilic Molecular Interface Layer. Journal of Physical Chemistry B, 2006, 110, 7635-7639.	1.2	522
13	The dynamics of methylammonium ions in hybrid organicâ€“inorganic perovskite solar cells. Nature Communications, 2015, 6, 7124.	5.8	517
14	Efficient Organic Solar Cells with Solutionâ€Processed Silver Nanowire Electrodes. Advanced Materials, 2011, 23, 4371-4375.	11.1	513
15	Influence of blend microstructure on bulk heterojunction organic photovoltaic performance. Chemical Society Reviews, 2011, 40, 1185-1199.	18.7	511
16	Quantifying Losses in Open-Circuit Voltage in Solution-Processable Solar Cells. Physical Review Applied, 2015, 4, .	1.5	500
17	An Alkylated Indacenodithieno[3,2â€b]thopheneâ€Based Nonfullerene Acceptor with High Crystallinity Exhibiting Single Junction Solar Cell Efficiencies Greater than 13% with Low Voltage Losses. Advanced Materials, 2018, 30, 1705209.	11.1	474
18	Experimental determination of the rate law for charge carrier decay in a polythiophene: Fullerene solar cell. Applied Physics Letters, 2008, 92, .	1.5	471

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19	A Rhodanine Flanked Nonfullerene Acceptor for Solution-Processed Organic Photovoltaics. Journal of the American Chemical Society, 2015, 137, 898-904.	6.6	446
20	Polymer:fullerene bulk heterojunction solar cells. Materials Today, 2011, 14, 462-470.	8.3	418
21	Bimolecular recombination losses in polythiophene: Fullerene solar cells. Physical Review B, 2008, 78, .	1.1	389
22	Experimental and theoretical optical properties of methylammonium lead halide perovskites. Nanoscale, 2016, 8, 6317-6327.	2.8	385
23	Trap-limited recombination in dye-sensitized nanocrystalline metal oxide electrodes. Physical Review B, 2001, 63, .	1.1	378
24	Organic photovoltaic films. Current Opinion in Solid State and Materials Science, 2002, 6, 87-95.	5.6	368
25	Recombination Dynamics as a Key Determinant of Open Circuit Voltage in Organic Bulk Heterojunction Solar Cells: A Comparison of Four Different Donor Polymers. Advanced Materials, 2010, 22, 4987-4992.	11.1	368
26	Binary Organic Photovoltaic Blends: A Simple Rationale for Optimum Compositions. Advanced Materials, 2008, 20, 3510-3515.	11.1	364
27	The Nature of In-Plane Skeleton Raman Modes of P3HT and Their Correlation to the Degree of Molecular Order in P3HT:PCBM Blend Thin Films. Journal of the American Chemical Society, 2011, 133, 9834-9843.	6.6	350
28	Recombination via tail states in polythiophene:fullerene solar cells. Physical Review B, 2011, 83, .	1.1	345
29	Diffusion-limited recombination in polymer-fullerene blends and its influence on photocurrent collection. Physical Review B, 2003, 67, .	1.1	339
30	Hybrid polymerâ€“metal oxide thin films for photovoltaic applications. Journal of Materials Chemistry, 2007, 17, 3141.	6.7	335
31	Nondispersive hole transport in amorphous films of methoxy-spirofluorene-arylamine organic compound. Journal of Applied Physics, 2003, 93, 341-346.	1.1	327
32	Molecular Control of Recombination Dynamics in Dye-Sensitized Nanocrystalline TiO2Films:Â Free Energy vs Distance Dependence. Journal of the American Chemical Society, 2004, 126, 5225-5233.	6.6	325
33	A History and Perspective of Nonâ€Fullerene Electron Acceptors for Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003570.	10.2	323
34	Exploring the origin of high optical absorption in conjugated polymers. Nature Materials, 2016, 15, 746-753.	13.3	314
35	Hybridization of Local Exciton and Charge-Transfer States Reduces Nonradiative Voltage Losses in Organic Solar Cells. Journal of the American Chemical Society, 2019, 141, 6362-6374.	6.6	307
36	Random walk models of charge transfer and transport in dye sensitized systems. Coordination Chemistry Reviews, 2004, 248, 1181-1194.	9.5	299

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37	Economic assessment of solar electricity production from organic-based photovoltaic modules in a domestic environment. Energy and Environmental Science, 2011, 4, 3741.	15.6	290
38	The impact of molecular weight on microstructure and charge transport in semicrystalline polymer semiconductorsâ€“poly(3-hexylthiophene), a model study. Progress in Polymer Science, 2013, 38, 1978-1989.	11.8	274
39	Hybrid polymer/metal oxide solar cells based on ZnO columnar structures. Journal of Materials Chemistry, 2006, 16, 2088.	6.7	259
40	Charge-density-based analysis of the currentâ€“voltage response of polythiophene/fullerene photovoltaic devices. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16448-16452.	3.3	259
41	Sensitivity of the Mottâ€“Schottky Analysis in Organic Solar Cells. Journal of Physical Chemistry C, 2012, 116, 7672-7680.	1.5	259
42	Photocurrent Enhancement from Diketopyrrolopyrrole Polymer Solar Cells through Alkyl-Chain Branching Point Manipulation. Journal of the American Chemical Society, 2013, 135, 11537-11540.	6.6	258
43	The Effect of Poly(3â€hexylthiophene) Molecular Weight on Charge Transport and the Performance of Polymer:Fullerene Solar Cells. Advanced Functional Materials, 2008, 18, 2373-2380.	7.8	256
44	Free Energy Control of Charge Photogeneration in Polythiophene/Fullerene Solar Cells: The Influence of Thermal Annealing on P3HT/PCBM Blends. Advanced Functional Materials, 2008, 18, 4029-4035.	7.8	256
45	Using Self-Assembling Dipole Molecules to Improve Charge Collection in Molecular Solar Cells. Advanced Functional Materials, 2006, 16, 95-100.	7.8	253
46	Environmental and economic assessment of ITO-free electrodes for organic solar cells. Solar Energy Materials and Solar Cells, 2012, 97, 14-21.	3.0	250
47	Formation of a Ground-State Charge-Transfer Complex in Polyfluorene//[6,6]-Phenyl-C61 Butyric Acid Methyl Ester (PCBM) Blend Films and Its Role in the Function of Polymer/PCBM Solar Cells. Advanced Functional Materials, 2007, 17, 451-457.	7.8	248
48	Understanding structure-activity relationships in linear polymer photocatalysts for hydrogen evolution. Nature Communications, 2018, 9, 4968.	5.8	244
49	Modeling Charge Transport in Organic Photovoltaic Materials. Accounts of Chemical Research, 2009, 42, 1768-1778.	7.6	239
50	Competition between the Charge Transfer State and the Singlet States of Donor or Acceptor Limiting the Efficiency in Polymer:Fullerene Solar Cells. Journal of the American Chemical Society, 2012, 134, 685-692.	6.6	238
51	The 2019 materials by design roadmap. Journal Physics D: Applied Physics, 2019, 52, 013001.	1.3	236
52	Ambipolar Charge Transport in Films of Methanofullerene and Poly(phenylenevinylene)/MethanofullereneÂBlends. Advanced Functional Materials, 2005, 15, 1171-1182.	7.8	230
53	On the Differences between Dark and Light Ideality Factor in Polymer:Fullerene Solar Cells. Journal of Physical Chemistry Letters, 2013, 4, 2371-2376.	2.1	227
54	Effect of Crystallization on the Electronic Energy Levels and Thin Film Morphology of P3HT:PCBM Blends. Macromolecules, 2011, 44, 2944-2952.	2.2	225

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55	Understanding the Thickness-Dependent Performance of Organic Bulk Heterojunction Solar Cells: The Influence of Mobility, Lifetime, and Space Charge. Journal of Physical Chemistry Letters, 2012, 3, 3470-3475.	2.1	223
56	Organic photovoltaic greenhouses: a unique application for semi-transparent PV?. Energy and Environmental Science, 2015, 8, 1317-1328.	15.6	222
57	Organic Photovoltaic Devices Based on Blends of Regioregular Poly(3-hexylthiophene) and Poly(9,9-dioctylfluorene-co-benzothiadiazole). Chemistry of Materials, 2004, 16, 4812-4818.	3.2	219
58	Iodide Electron Transfer Kinetics in Dye-Sensitized Nanocrystalline TiO2Films. Journal of Physical Chemistry B, 2002, 106, 12203-12210.	1.2	213
59	Modeling Nongeminate Recombination in P3HT:PCBM Solar Cells. Journal of Physical Chemistry C, 2011, 115, 9806-9813.	1.5	212
60	Realâ€Time Investigation of Crystallization and Phaseâ€Segregation Dynamics in P3HT:PCBM Solar Cells During Thermal Annealing. Advanced Functional Materials, 2011, 21, 1701-1708.	7.8	207
61	A round robin study of flexible large-area roll-to-roll processed polymer solar cell modules. Solar Energy Materials and Solar Cells, 2009, 93, 1968-1977.	3.0	205
62	High ambipolar and balanced carrier mobility in regioregular poly(3-hexylthiophene). Applied Physics Letters, 2004, 85, 3890-3892.	1.5	202
63	Meaning of reaction orders in polymer:fullerene solar cells. Physical Review B, 2012, 86, .	1.1	199
64	The Role of the Side Chain on the Performance of N-type Conjugated Polymers in Aqueous Electrolytes. Chemistry of Materials, 2018, 30, 2945-2953.	3.2	199
65	Charge Recombination in Conjugated Polymer/Fullerene Blended Films Studied by Transient Absorption Spectroscopy. Journal of Physical Chemistry B, 2003, 107, 1567-1573.	1.2	197
66	Composition and annealing effects in polythiophene/fullerene solar cells. Journal of Materials Science, 2005, 40, 1371-1376.	1.7	196
67	Dynamics of Crystallization and Disorder during Annealing of P3HT/PCBM Bulk Heterojunctions. Macromolecules, 2011, 44, 2725-2734.	2.2	190
68	Transient optical studies of charge recombination dynamics in a polymer/fullerene composite at room temperature. Applied Physics Letters, 2002, 81, 3001-3003.	1.5	189
69	Hybrid nanocrystalline TiO2 solar cells with a fluoreneâ€“thiophene copolymer as a sensitizer and hole conductor. Journal of Applied Physics, 2004, 95, 1473-1480.	1.1	185
70	Effects of thickness and thermal annealing of the PEDOT:PSS layer on the performance of polymer solar cells. Organic Electronics, 2009, 10, 205-209.	1.4	184
71	Defect Chemistry, Surface Structures, and Lithium Insertion in Anatase TiO2. Journal of Physical Chemistry B, 2006, 110, 9995-10001.	1.2	179
72	Factors limiting the efficiency of molecular photovoltaic devices. Physical Review B, 2004, 69, .	1.1	178

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73	Extracting Microscopic Device Parameters from Transient Photocurrent Measurements of P3HT:PCBM Solar Cells. Advanced Energy Materials, 2012, 2, 662-669.	10.2	178
74	Charge Mobility of Discotic Mesophases: A Multiscale Quantum and Classical Study. Physical Review Letters, 2007, 98, 227402.	2.9	172
75	Transient Optoelectronic Analysis of Charge Carrier Losses in a Selenophene/Fullerene Blend Solar Cell. Journal of Physical Chemistry C, 2011, 115, 5947-5957.	1.5	170
76	Simulating charge transport in tris(8-hydroxyquinoline) aluminium (Alq3). Physical Chemistry Chemical Physics, 2008, 10, 1852.	1.3	169
77	The Effect of Polymer Optoelectronic Properties on the Performance of Multilayer Hybrid Polymer/TiO2 Solar Cells. Advanced Functional Materials, 2005, 15, 609-618.	7.8	166
78	Visualizing charge separation in bulk heterojunction organic solar cells. Nature Communications, 2013, 4, 2334.	5.8	158
79	Models of charge pair generation in organic solar cells. Physical Chemistry Chemical Physics, 2015, 17, 2311-2325.	1.3	158
80	Electron Transfer Dynamics in Dye Sensitized Nanocrystalline Solar Cells Using a Polymer Electrolyte. Journal of Physical Chemistry B, 2001, 105, 7517-7524.	1.2	155
81	Studies of Highly Regioregular Poly(3â€hexylselenophene) for Photovoltaic Applications. Advanced Materials, 2007, 19, 4544-4547.	11.1	154
82	Measurement of Chargeâ€Density Dependence of Carrier Mobility in an Organic Semiconductor Blend. Advanced Functional Materials, 2010, 20, 698-702.	7.8	154
83	A polymer/fullerene based photodetector with extremely low dark current for x-ray medical imaging applications. Applied Physics Letters, 2008, 93, .	1.5	152
84	Electron Collection as a Limit to Polymer:PCBM Solar Cell Efficiency: Effect of Blend Microstructure on Carrier Mobility and Device Performance in PTB7:PCBM. Advanced Energy Materials, 2014, 4, 1400311.	10.2	151
85	Using Self-Assembling Dipole Molecules to Improve Hole Injection in Conjugated Polymers. Advanced Functional Materials, 2004, 14, 1205-1210.	7.8	149
86	Recombination in Annealed and Nonannealed Polythiophene/Fullerene Solar Cells: Transient Photovoltage Studies versus Numerical Modeling. Journal of Physical Chemistry Letters, 2010, 1, 1432-1436.	2.1	146
87	Ionic-to-electronic current amplification in hybrid perovskite solar cells: ionically gated transistor-interface circuit model explains hysteresis and impedance of mixed conducting devices. Energy and Environmental Science, 2019, 12, 1296-1308.	15.6	146
88	Recent Progress and Challenges toward Highly Stable Nonfullerene Acceptorâ€Based Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003002.	10.2	146
89	Investigation of transport properties in polymer/fullerene blends using time-of-flight photocurrent measurements. Applied Physics Letters, 2003, 83, 3812-3814.	1.5	145
90	Nonâ€Geminate Recombination as the Primary Determinant of Openâ€Circuit Voltage in Polythiophene:Fullerene Blend Solar Cells: an Analysis of the Influence of Device Processing Conditions. Advanced Functional Materials, 2011, 21, 2744-2753.	7.8	143

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91	Temperature and field dependence of hole mobility in poly(9,9-dioctylfluorene). Physical Review B, 2006, 73, .	1.1	142
92	Hybrid Solar Cells from a Blend of Poly(3â€hexylthiophene) and Ligandâ€Capped TiO₂ Nanorods. Advanced Functional Materials, 2008, 18, 622-633.	7.8	141
93	Shortâ€circuit current and energy efficiency enhancement in a lowâ€dimensional structure photovoltaic device. Applied Physics Letters, 1991, 59, 135-137.	1.5	136
94	Quantum well solar cells. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 27-36.	1.3	136
95	Emergent Properties of an Organic Semiconductor Driven by its Molecular Chirality. ACS Nano, 2017, 11, 8329-8338.	7.3	136
96	Design and evaluation of conjugated polymers with polar side chains as electrode materials for electrochemical energy storage in aqueous electrolytes. Energy and Environmental Science, 2019, 12, 1349-1357.	15.6	136
97	Steady-state carrier escape from single quantum wells. IEEE Journal of Quantum Electronics, 1993, 29, 1460-1468.	1.0	135
98	Electron Dynamics in Nanocrystalline ZnO and TiO2Films Probed by Potential Step Chronoamperometry and Transient Absorption Spectroscopy. Journal of Physical Chemistry B, 2002, 106, 7605-7613.	1.2	131
99	Understanding the Reduced Efficiencies of Organic Solar Cells Employing Fullerene Multiadducts as Acceptors. Advanced Energy Materials, 2013, 3, 744-752.	10.2	125
100	Energetic Control of Redoxâ€Active Polymers toward Safe Organic Bioelectronic Materials. Advanced Materials, 2020, 32, e1908047.	11.1	124
101	Modeling the spectral response of the quantum well solar cell. Journal of Applied Physics, 1993, 74, 614-621.	1.1	122
102	SOLAR ENERGY: Solar Cells by Self-Assembly?. Science, 2001, 293, 1059-1060.	6.0	117
103	The role of fullerenes in the environmental stability of polymer:fullerene solar cells. Energy and Environmental Science, 2018, 11, 417-428.	15.6	117
104	Factors Controlling Open-Circuit Voltage Losses in Organic Solar Cells. Trends in Chemistry, 2019, 1, 49-62.	4.4	117
105	Gravure printing for three subsequent solar cell layers of inverted structures on flexible substrates. Solar Energy Materials and Solar Cells, 2011, 95, 731-734.	3.0	115
106	Ohmic hole injection in poly(9,9-dioctylfluorene) polymer light-emitting diodes. Applied Physics Letters, 2003, 83, 707-709.	1.5	112
107	Photochemical Reduction of Oxygen Adsorbed to Nanocrystalline TiO2Films:Â A Transient Absorption and Oxygen Scavenging Study of Different TiO2Preparations. Journal of Physical Chemistry B, 2006, 110, 23255-23263.	1.2	112
108	Effects of Photo-oxidation on the Performance of Poly[2-methoxy-5-(3â€²,7â€²-dimethyloctyloxy)-1,4-phenylene vinylene]:[6,6]-Phenyl C61-Butyric Acid Methyl Ester Solar Cells. Advanced Functional Materials, 2006, 16, 2117-2126.	7.8	108

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109	Identifying Dominant Recombination Mechanisms in Perovskite Solar Cells by Measuring the Transient Ideality Factor. Physical Review Applied, 2019, 11, .	1.5	107
110	Dependence of Charge Separation Efficiency on Film Microstructure in Poly(3-hexylthiophene-2,5-diyl):[6,6]-Phenyl-C₆₁ Butyric Acid Methyl Ester Blend Films. Journal of Physical Chemistry Letters, 2010, 1, 734-738.	2.1	102
111	Limits on the Fill Factor in Organic Photovoltaics: Distinguishing Nongeminate and Geminate Recombination Mechanisms. Journal of Physical Chemistry Letters, 2013, 4, 803-808.	2.1	102
112	Exploring the validity and limitations of the Mottâ€“Gurney law for charge-carrier mobility determination of semiconducting thin-films. Journal of Physics Condensed Matter, 2018, 30, 105901.	0.7	102
113	Effect of the End Group of Regioregular Poly(3-hexylthiophene) Polymers on the Performance of Polymer/Fullerene Solar Cells. Journal of Physical Chemistry C, 2007, 111, 8137-8141.	1.5	96
114	Influence of Polymer-Blend Morphology on Charge Transport and Photocurrent Generation in Donorâ^'Acceptor Polymer Blends. Nano Letters, 2006, 6, 1674-1681.	4.5	95
115	Progress in Poly (3â€Hexylthiophene) Organic Solar Cells and the Influence of Its Molecular Weight on Device Performance. Advanced Energy Materials, 2018, 8, 1801001.	10.2	95
116	Quantum well solar cells. Applied Surface Science, 1997, 113-114, 722-733.	3.1	94
117	Device Performance of Emerging Photovoltaic Materials (Version 1). Advanced Energy Materials, 2021, 11, 2002774.	10.2	93
118	Understanding the Influence of Morphology on Poly(3-hexylselenothiophene):PCBM Solar Cells. Macromolecules, 2010, 43, 1169-1174.	2.2	92
119	Investigation of a Conjugated Polyelectrolyte Interlayer for Inverted Polymer:Fullerene Solar Cells. Advanced Energy Materials, 2013, 3, 718-723.	10.2	92
120	Side-chain tuning in conjugated polymer photocatalysts for improved hydrogen production from water. Energy and Environmental Science, 2020, 13, 1843-1855.	15.6	92
121	Hybrid Bulk Heterojunction Solar Cells Based on P3HT and Porphyrin-Modified ZnO Nanorods. Journal of Physical Chemistry C, 2010, 114, 11273-11278.	1.5	91
122	Gravure printing inverted organic solar cells: The influence of ink properties on film quality and device performance. Solar Energy Materials and Solar Cells, 2012, 105, 77-85.	3.0	91
123	Photoconductivity and charge trapping in porous nanocrystalline titanium dioxide. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 148, 25-31.	2.0	89
124	Relating Recombination, Density of States, and Device Performance in an Efficient Polymer:Fullerene Organic Solar Cell Blend. Advanced Energy Materials, 2013, 3, 1201-1209.	10.2	89
125	Field-Independent Charge Photogeneration in PCPDTBT/PC₇₀BM Solar Cells. Journal of Physical Chemistry Letters, 2010, 1, 3306-3310.	2.1	88
126	Transient Absorption Studies and Numerical Modeling of Iodine Photoreduction by Nanocrystalline TiO2Films. Journal of Physical Chemistry B, 2005, 109, 142-150.	1.2	87

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127	Energetic Disorder in Higher Fullerene Adducts: A Quantum Chemical and Voltammetric Study. Advanced Materials, 2010, 22, 4881-4884.	11.1	87
128	Influence of Surface Recombination on Charge-Carrier Kinetics in Organic Bulk Heterojunction Solar Cells with Nickel Oxide Interlayers. Physical Review Applied, 2015, 4, .	1.5	87
129	A numerical study of mobility in thin films of fullerene derivatives. Journal of Chemical Physics, 2010, 132, 064904.	1.2	86
130	Controlling Microstructure of Pentacene Derivatives by Solution Processing: Impact of Structural Anisotropy on Optoelectronic Properties. ACS Nano, 2013, 7, 7983-7991.	7.3	86
131	Influence of Crystallinity and Energetics on Charge Separation in Polymerâ€"Inorganic Nanocomposite Films for Solar Cells. Scientific Reports, 2013, 3, 1531.	1.6	84
132	Efficient charge collection in hybrid polymer/TiO2 solar cells using poly(ethylenedioxythiophene)/polystyrene sulphonate as hole collector. Applied Physics Letters, 2005, 86, 143101.	1.5	83
133	Charge transport in porous nanocrystalline titanium dioxide. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 197-202.	1.3	82
134	Charge transport model for disordered materials:â€ƒApplication to sensitizedTiO2. Physical Review B, 2002, 65, .	1.1	81
135	Predictive Study of Charge Transport in Disordered Semiconducting Polymers. Nano Letters, 2007, 7, 1785-1788.	4.5	81
136	Composition dependence of electron and hole transport in polyfluorene:[6,6]-phenyl C61-butyric acid methyl ester blend films. Applied Physics Letters, 2003, 83, 4764-4766.	1.5	79
137	Influence of polar medium on the reorganization energy of charge transfer between dyes in a dye sensitized film. Physical Chemistry Chemical Physics, 2013, 15, 4804.	1.3	79
138	Electron transport in quantum dot solids: Monte Carlo simulations of the effects of shell filling, Coulomb repulsions, and site disorder. Physical Review B, 2007, 75, .	1.1	78
139	Organic Semiconductor:Insulator Polymer Ternary Blends for Photovoltaics. Advanced Materials, 2011, 23, 4093-4097.	11.1	77
140	Influence of energetic disorder on electroluminescence emission in polymer:fullerene solar cells. Physical Review B, 2012, 86, .	1.1	76
141	Transient Optoelectronic Analysis of the Impact of Material Energetics and Recombination Kinetics on the Open-Circuit Voltage of Hybrid Perovskite Solar Cells. Journal of Physical Chemistry C, 2017, 121, 13496-13506.	1.5	76
142	Single Crystal, Luminescent Carbon Nitride Nanosheets Formed by Spontaneous Dissolution. Nano Letters, 2017, 17, 5891-5896.	4.5	76
143	Observation of suppressed radiative recombination in single quantum well p-i-n photodiodes. Journal of Applied Physics, 1997, 82, 6240-6246.	1.1	74
144	Analysis of the Relationship between Linearity of Corrected Photocurrent and the Order of Recombination in Organic Solar Cells. Journal of Physical Chemistry Letters, 2011, 2, 2407-2411.	2.1	74

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145	Polaron pair mediated triplet generation in polymer/fullerene blends. Nature Communications, 2015, 6, 6501.	5.8	74
146	Voltage enhancement in quantum well solar cells. Journal of Applied Physics, 1996, 80, 1201-1206.	1.1	73
147	The role of alkane dithiols in controlling polymer crystallization in small band gap polymer:Fullerene solar cells. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 717-724.	2.4	73
148	The Effect of Morphology on Electron Field-Effect Mobility in Disordered C60 Thin Films. Nano Letters, 2009, 9, 1085-1090.	4.5	72
149	Singlet exciton transfer and fullerene triplet formation in polymer-fullerene blend films. Applied Physics Letters, 2006, 89, 101128.	1.5	70
150	Highâ€Performance Metalâ€Free Solar Cells Using Stamp Transfer Printed Vapor Phase Polymerized Poly(3,4â€Ethylenedioxythiophene) Top Anodes. Advanced Functional Materials, 2012, 22, 1454-1460.	7.8	68
151	Device Performance of Emerging Photovoltaic Materials (Version 2). Advanced Energy Materials, 2021, 11, .	10.2	66
152	Influence of doping on charge carrier collection in normal and inverted geometry polymer:fullerene solar cells. Scientific Reports, 2013, 3, .	1.6	65
153	Columnar mesophases of hexabenzocoronene derivatives. II. Charge carrier mobility. Journal of Chemical Physics, 2008, 129, 094506.	1.2	64
154	X-ray stability and response of polymeric photodiodes for imaging applications. Applied Physics Letters, 2008, 92, 023304.	1.5	63
155	Control of Photocurrent Generation in Polymer/ZnO Nanorod Solar Cells by Using a Solution-Processed TiO₂ Overlayer. Journal of Physical Chemistry Letters, 2010, 1, 708-713.	2.1	63
156	Interpreting the Density of States Extracted from Organic Solar Cells Using Transient Photocurrent Measurements. Journal of Physical Chemistry C, 2013, 117, 12407-12414.	1.5	63
157	Reversible Electrochemical Charging of n-Type Conjugated Polymer Electrodes in Aqueous Electrolytes. Journal of the American Chemical Society, 2021, 143, 14795-14805.	6.6	62
158	Cyclopentadithiophene-benzothiadiazole oligomers and polymers; synthesis, characterisation, field-effect transistor and photovoltaic characteristics. Journal of Materials Chemistry, 2012, 22, 381-389.	6.7	61
159	Influence of Chemical Structure on the Charge Transfer State Spectrum of a Polymer:Fullerene Complex. Journal of Physical Chemistry C, 2014, 118, 8253-8261.	1.5	61
160	The reorganization energy of intermolecular hole hopping between dyes anchored to surfaces. Chemical Science, 2014, 5, 281-290.	3.7	60
161	Effect of multiple adduct fullerenes on charge generation and transport in photovoltaic blends with poly(3â€hexylthiopheneâ€2,5â€diyl). Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 45-51.	2.4	59
162	Low Open-Circuit Voltage Loss in Solution-Processed Small-Molecule Organic Solar Cells. ACS Energy Letters, 2016, 1, 302-308.	8.8	59

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163	Test of a Mean Field Theory for the Optics of Fractal Clusters. Journal of Modern Optics, 1989, 36, 1031-1057.	0.6	58
164	EFFICIENT POLYFLUORENE BASED SOLAR CELLS. Synthetic Metals, 2003, 137, 1469-1470.	2.1	58
165	Charge Photogeneration in Low Band Gap Polyselenophene/Fullerene Blend Films. Journal of Physical Chemistry C, 2010, 114, 8068-8075.	1.5	58
166	Effect of Multiple Adduct Fullerenes on Microstructure and Phase Behavior of P3HT:Fullerene Blend Films for Organic Solar Cells. ACS Nano, 2012, 6, 3868-3875.	7.3	58
167	Organic photovoltaic films. Materials Today, 2002, 5, 20-27.	8.3	57
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