Aram Amassian

List of Publications by Year
in descending order

245 papers	25,284 citations	6592 79 h-index	7333 152 g-index
257 all docs	257 docs citations	257 times ranked	22451 citing authors

#	Article	IF	Citations
1	Conjugated Polymer Mesocrystals with Structural and Optoelectronic Coherence and Anisotropy in Three Dimensions. Advanced Materials, 2022, 34, e2103002.	11.1	11
2	Blending Donors with Different Molecular Weights: An Efficient Strategy to Resolve the Conflict between Coherence Length and Intermixed Phase in Polymer/Nonfullerene Solar Cells. Small, 2022, 18, e2103804.	5.2	16
3	A universal co-solvent dilution strategy enables facile and cost-effective fabrication of perovskite photovoltaics. Nature Communications, 2022, 13, 89.	5.8	77
4	Formamidinium-based Ruddlesdenâ€“Popper perovskite films fabricated <i>via</i> two-step sequential deposition: quantum well formation, physical properties and film-based solar cells. Energy and Environmental Science, 2022, 15, 1144-1155.	15.6	27
5	Conjugated polymers with controllable interfacial order and energetics enable tunable heterojunctions in organic and colloidal quantum dot photovoltaics. Journal of Materials Chemistry A, 2022, 10, 1788-1801.	5.2	6
6	Versatile methods for improving the mechanical properties of fullerene and non-fullerene bulk heterojunction layers to enable stretchable organic solar cells. Journal of Materials Chemistry C, 2022, 10, 3375-3386.	2.7	10
7	A Universal Cosolvent Evaporation Strategy Enables Direct Printing of Perovskite Single Crystals for Optoelectronic Device Applications. Advanced Materials, 2022, 34, e2109862.	11.1	18
8	In Situ Study of Molecular Aggregation in Conjugated Polymer/Elastomer Blends toward Stretchable Electronics. Macromolecules, 2022, 55, 297-308.	2.2	30
9	Processing of Lead Halide Perovskite Thin Films Studied with In-Situ Real-Time X-ray Scattering. ACS Applied Materials & Interfaces, 2022, 14, 26315-26326.	4.0	5
10	Controlling Phase Transition toward Future Low-Cost and Eco-friendly Printing of Perovskite Solar Cells. Journal of Physical Chemistry Letters, 2022, 13, 6503-6513.	2.1	9
11	Roles of Organic Ligands in Ambient Stability of Layered Halide Perovskites. ACS Applied Materials & Interfaces, 2022, 14, 33085-33093.	4.0	2
12	Microstructure and lattice strain control towards high-performance ambient green-printed perovskite solar cells. Journal of Materials Chemistry A, 2021, 9, 13297-13305.	5.2	29
13	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. Nature Materials, 2021, 20, 525-532.	13.3	212
14	Perovskite Solar Cells toward Eco-Friendly Printing. Research, 2021, 2021, 9671892.	2.8	18
15	Balancing crop production and energy harvesting in organic solar-powered greenhouses. Cell Reports Physical Science, 2021, 2, 100381.	2.8	48
16	Wide and Tunable Bandgap MAPbBr_{3âˆ’<i>x</i>}Cl_{<i>x</i>} Hybrid Perovskites with Enhanced Phase Stability: In Situ Investigation and Photovoltaic Devices. Solar Rrl, 2021, 5, 2000718.	3.1	32
17	Film Formation Control for High Performance Dionâ€“Jacobson 2D Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2002733.	10.2	62
18	Implication of polymeric template agent on the formation process of hybrid halide perovskite films. Nanotechnology, 2021, 32, 265707.	1.3	13

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19	Optimizing Morphology to Trade Off Charge Transport and Mechanical Properties of Stretchable Conjugated Polymer Films. Macromolecules, 2021, 54, 3907-3926.	2.2	70
20	Effective Phaseâ€Alignment for 2D Halide Perovskites Incorporating Symmetric Diammonium Ion for Photovoltaics. Advanced Science, 2021, 8, e2001433.	5.6	32
21	Stable 2D Alternating Cation Perovskite Solar Cells with Power Conversion Efficiency >19% via Solvent Engineering. Solar Rrl, 2021, 5, 2100286.	3.1	45
22	Pushing the Limits of Flexibility and Stretchability of Solar Cells: A Review. Advanced Materials, 2021, 33, e2101469.	11.1	51
23	Observation of spatially resolved Rashba states on the surface of CH3NH3PbBr3 single crystals. Applied Physics Reviews, 2021, 8, .	5.5	12
24	Impact of Residual Lead Iodide on Photophysical Properties of Lead Triiodide Perovskite Solar Cells. Energy Technology, 2020, 8, 1900627.	1.8	10
25	Observation of long spin lifetime in MAPbBr₃ single crystals at room temperature. JPhys Materials, 2020, 3, 015012.	1.8	15
26	Ambient blade coating of mixed cation, mixed halide perovskites without dripping: <i>in situ</i> investigation and highly efficient solar cells. Journal of Materials Chemistry A, 2020, 8, 1095-1104.	5.2	68
27	Systematic Study on the Morphological Development of Blade-Coated Conjugated Polymer Thin Films via In Situ Measurements. ACS Applied Materials & Interfaces, 2020, 12, 36417-36427.	4.0	15
28	Novel Bimodal Silver Nanowire Network as Top Electrodes for Reproducible and Highâ€Efficiency Semitransparent Organic Photovoltaics. Solar Rrl, 2020, 4, 2000328.	3.1	36
29	Perovskite Quantum Dots: Artificial Chemist: An Autonomous Quantum Dot Synthesis Bot (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Ove	11.1	2
30	Colloidal Quantum Dot Photovoltaics: Current Progress and Path to Gigawatt Scale Enabled by Smart Manufacturing. ACS Energy Letters, 2020, 5, 3069-3100.	8.8	61
31	Printable CsPbI₃ Perovskite Solar Cells with PCE of 19% via an Additive Strategy. Advanced Materials, 2020, 32, e2001243.	11.1	157
32	High-density polyethyleneâ€"an inert additive with stabilizing effects on organic field-effect transistors. Journal of Materials Chemistry C, 2020, 8, 15406-15415.	2.7	15
33	The Critical Role of Materialsâ€™ Interaction in Realizing Organic Field-Effect Transistors Via High-Dilution Blending with Insulating Polymers. ACS Applied Materials & Interfaces, 2020, 12, 26239-26249.	4.0	22
34	Highâ€Performance Tandem Organic Solar Cells Using HSolar as the Interconnecting Layer. Advanced Energy Materials, 2020, 10, 2000823.	10.2	23
35	Colloidal Quantum Dot Photovoltaics Using Ultrathin, Solution-Processed Bilayer In₂O₃/ZnO Electron Transport Layers with Improved Stability. ACS Applied Energy Materials, 2020, 3, 5135-5141.	2.5	13
36	Artificial Chemist: An Autonomous Quantum Dot Synthesis Bot. Advanced Materials, 2020, 32, e2001626.	11.1	170

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37	Efficient Hybrid Mixedâ€Ion Perovskite Photovoltaics: In Situ Diagnostics of the Roles of Cesium and Potassium Alkali Cation Addition. Solar Rrl, 2020, 4, 2000272.	3.1	19
38	Facile and noninvasive passivation, doping and chemical tuning of macroscopic hybrid perovskite crystals. PLoS ONE, 2020, 15, e0230540.	1.1	9
39	<i>In situ</i> study of the film formation mechanism of organicâ€"inorganic hybrid perovskite solar cells: controlling the solvate phase using an additive system. Journal of Materials Chemistry A, 2020, 8, 7695-7703.	5.2	29
40	Role of Alkali-Metal Cations in Electronic Structure and Halide Segregation of Hybrid Perovskites. ACS Applied Materials & Interfaces, 2020, 12, 34402-34412.	4.0	15
41	Organic Solar Cells: Highâ€Performance Tandem Organic Solar Cells Using HSolar as the Interconnecting Layer (Adv. Energy Mater. 25/2020). Advanced Energy Materials, 2020, 10, 2070109.	10.2	0
42	Critical Role of Polymer Aggregation and Miscibility in Nonfullereneâ€Based Organic Photovoltaics. Advanced Energy Materials, 2020, 10, 1902430.	10.2	41
43	Roomâ€Temperature Partial Conversion of Î±â€FAPbI₃Perovskite Phase via PbI₂Solvation Enables Highâ€Performance Solar Cells. Advanced Functional Materials, 2020, 30, 1907442.	7.8	41
44	Efficient near-infrared light-emitting diodes based on quantum dots in layered perovskite. Nature Photonics, 2020, 14, 227-233.	15.6	136
45	Optimizing Solid-State Ligand Exchange for Colloidal Quantum Dot Optoelectronics: How Much Is Enough?. ACS Applied Energy Materials, 2020, 3, 5385-5392.	2.5	29
46	Stretchable and Transparent Conductive PEDOT:PSSâ€Based Electrodes for Organic Photovoltaics and Strain Sensors Applications. Advanced Functional Materials, 2020, 30, 2001251.	7.8	88
47	The Growth of Photoactive Porphyrin-Based MOF Thin Films Using the Liquid-Phase Epitaxy Approach and their Optoelectronic Properties. Materials, 2019, 12, 2457.	1.3	11
48	Ligand-Size Related Dimensionality Control in Metal Halide Perovskites. ACS Energy Letters, 2019, 4, 1830-1838.	8.8	38
49	Multi-cation Synergy Suppresses Phase Segregation in Mixed-Halide Perovskites. Joule, 2019, 3, 1746-1764.	11.7	159
50	Compositional Control in 2D Perovskites with Alternating Cations in the Interlayer Space for Photovoltaics with Efficiency over 18%. Advanced Materials, 2019, 31, e1903848.	11.1	171
51	Fine Multiâ€Phase Alignments in 2D Perovskite Solar Cells with Efficiency over 17% via Slow Postâ€Annealing. Advanced Materials, 2019, 31, e1903889.	11.1	178
52	Scalable Ambient Fabrication of High-Performance CsPbI2Br Solar Cells. Joule, 2019, 3, 2485-2502.	11.7	124
53	Interfacial Engineering at the 2D/3D Heterojunction for High-Performance Perovskite Solar Cells. Nano Letters, 2019, 19, 7181-7190.	4.5	163
54	Environmental impact of the production of graphene oxide and reduced graphene oxide. SN Applied Sciences, 2019, 1, 1.	1.5	55

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55	Impact of the Solvation State of Lead Iodide on Its Twoâ€Step Conversion to MAPbI₃: An In Situ Investigation. Advanced Functional Materials, 2019, 29, 1807544.	7.8	45
56	Kinetic Stabilization of the Solâ€“Gel State in Perovskites Enables Facile Processing of Highâ€Efficiency Solar Cells. Advanced Materials, 2019, 31, e1808357.	11.1	76
57	Lattice anchoring stabilizes solution-processed semiconductors. Nature, 2019, 570, 96-101.	13.7	208
58	Impressive near-infrared brightness and singlet oxygen generation from strategic lanthanideâ€“porphyrin double-decker complexes in aqueous solution. Light: Science and Applications, 2019, 8, 46.	7.7	33
59	Controlled Steric Hindrance Enables Efficient Ligand Exchange for Stable, Infrared-Bandgap Quantum Dot Inks. ACS Energy Letters, 2019, 4, 1225-1230.	8.8	54
60	Bismuthâ€Based Perovskiteâ€Inspired Solar Cells: In Situ Diagnostics Reveal Similarities and Differences in the Film Formation of Bismuthâ€• and Leadâ€Based Films. Solar Rrl, 2019, 3, 1800305.	3.1	41
61	Conducting and Stretchable PEDOT:PSS Electrodes: Role of Additives on Self-Assembly, Morphology, and Transport. ACS Applied Materials & Interfaces, 2019, 11, 17570-17582.	4.0	72
62	Low-temperature-gradient crystallization for multi-inch high-quality perovskite single crystals for record performance photodetectors. Materials Today, 2019, 22, 67-75.	8.3	204
63	Dynamical Transformation of Two-Dimensional Perovskites with Alternating Cations in the Interlayer Space for High-Performance Photovoltaics. Journal of the American Chemical Society, 2019, 141, 2684-2694.	6.6	189
64	Bistetracene Thin Film Polymorphic Control to Unravel the Effect of Molecular Packing on Charge Transport. Advanced Materials Interfaces, 2018, 5, 1701607.	1.9	14
65	2D matrix engineering for homogeneous quantum dot coupling in photovoltaic solids. Nature Nanotechnology, 2018, 13, 456-462.	15.6	252
66	Phase Transition Control for High Performance Ruddlesdenâ€“Popper Perovskite Solar Cells. Advanced Materials, 2018, 30, e1707166.	11.1	244
67	The Impact of Molecular pâ€Doping on Charge Transport in Highâ€Mobility Smallâ€Molecule/Polymer Blend Organic Transistors. Advanced Electronic Materials, 2018, 4, 1700464.	2.6	63
68	Functional Two-Dimensional Coordination Polymeric Layer as a Charge Barrier in Liâ€“S Batteries. ACS Nano, 2018, 12, 836-843.	7.3	76
69	Hybrid Tandem Quantum Dot/Organic Solar Cells with Enhanced Photocurrent and Efficiency via Ink and Interlayer Engineering. ACS Energy Letters, 2018, 3, 1307-1314.	8.8	40
70	Solutionâ€Processed In₂O₃/ZnO Heterojunction Electron Transport Layers for Efficient Organic Bulk Heterojunction and Inorganic Colloidal Quantumâ€Dot Solar Cells. Solar Rrl, 2018, 2, 1800076.	3.1	34
71	Blade-Coated Hybrid Perovskite Solar Cells with Efficiency > 17%: An In Situ Investigation. ACS Energy Letters, 2018, 3, 1078-1085.	8.8	171
72	Stable Highâ€Performance Perovskite Solar Cells via Grain Boundary Passivation. Advanced Materials, 2018, 30, e1706576.	11.1	665

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73	On the Effect of Confinement on the Structure and Properties of Smallâ€Molecular Organic Semiconductors. Advanced Electronic Materials, 2018, 4, 1700308.	2.6	19
74	High performance ambient-air-stable FAPbI₃ perovskite solar cells with molecule-passivated Ruddlesdenâ€“Popper/3D heterostructured film. Energy and Environmental Science, 2018, 11, 3358-3366.	15.6	196
75	Single crystal hybrid perovskite field-effect transistors. Nature Communications, 2018, 9, 5354.	5.8	255
76	Multi-inch single-crystalline perovskite membrane for high-detectivity flexible photosensors. Nature Communications, 2018, 9, 5302.	5.8	212
77	The quantum-confined Stark effect in layered hybrid perovskites mediated by orientational polarizability of confined dipoles. Nature Communications, 2018, 9, 4214.	5.8	61
78	Compositional and orientational control in metal halide perovskites of reduced dimensionality. Nature Materials, 2018, 17, 900-907.	13.3	351
79	Solar Cells: Overcoming the Ambient Manufacturabilityâ€Scalabilityâ€Performance Bottleneck in Colloidal Quantum Dot Photovoltaics (Adv. Mater. 35/2018). Advanced Materials, 2018, 30, 1870260.	11.1	3
80	Solvent Vapor Annealing: Bistetracene Thin Film Polymorphic Control to Unravel the Effect of Molecular Packing on Charge Transport (Adv. Mater. Interfaces 9/2018). Advanced Materials Interfaces, 2018, 5, 1870040.	1.9	0
81	A 1300 mm² Ultrahighâ€Performance Digital Imaging Assembly using Highâ€Quality Perovskite Single Crystals. Advanced Materials, 2018, 30, e1707314.	11.1	246
82	Overcoming the Ambient Manufacturabilityâ€Scalabilityâ€Performance Bottleneck in Colloidal Quantum Dot Photovoltaics. Advanced Materials, 2018, 30, e1801661.	11.1	79
83	Contributions of the lead-bromine weighted bands to the occupied density of states of the hybrid tri-bromide perovskites. Applied Physics Letters, 2018, 113, 022101.	1.5	6
84	Highly Efficient Ruddlesdenâ€“Popper Halide Perovskite PA₂MA₄Pb₅I₁₆ Solar Cells. ACS Energy Letters, 2018, 3, 1975-1982.	8.8	135
85	Phase Transition Control for High-Performance Blade-Coated Perovskite Solar Cells. Joule, 2018, 2, 1313-1330.	11.7	180
86	Double Charged Surface Layers in Lead Halide Perovskite Crystals. Nano Letters, 2017, 17, 2021-2027.	4.5	60
87	Perovskite Photovoltaics: Hybrid Perovskite Thinâ€Film Photovoltaics: In Situ Diagnostics and Importance of the Precursor Solvate Phases (Adv. Mater. 2/2017). Advanced Materials, 2017, 29, .	11.1	3
88	Openâ€Circuit Voltage in Organic Solar Cells: The Impacts of Donor Semicrystallinity and Coexistence of Multiple Interfacial Chargeâ€Transfer Bands. Advanced Energy Materials, 2017, 7, 1601995.	10.2	35
89	Amorphous Tin Oxide as a Low-Temperature-Processed Electron-Transport Layer for Organic and Hybrid Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 11828-11836.	4.0	145
90	Organic Gelators as Growth Control Agents for Stable and Reproducible Hybrid Perovskiteâ€Based Solar Cells. Advanced Energy Materials, 2017, 7, 1602600.	10.2	78

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91	Programmable and coherent crystallization of semiconductors. Science Advances, 2017, 3, e1602462.	4.7	35
92	Hybrid perovskite solar cells: <i>In situ</i> investigation of solution-processed PbI₂ reveals metastable precursors and a pathway to producing porous thin films. Journal of Materials Research, 2017, 32, 1899-1907.	1.2	26
93	Morphology Development in Solution-Processed Functional Organic Blend Films: An In Situ Viewpoint. Chemical Reviews, 2017, 117, 6332-6366.	23.0	145
94	Solution Coating of Superior Largeâ€Area Flexible Perovskite Thin Films with Controlled Crystal Packing. Advanced Optical Materials, 2017, 5, 1700102.	3.6	34
95	Hybrid Doping of Few-Layer Graphene via a Combination of Intercalation and Surface Doping. ACS Applied Materials & Interfaces, 2017, 9, 20020-20028.	4.0	11
96	Highly Efficient and Reproducible Nonfullerene Solar Cells from Hydrocarbon Solvents. ACS Energy Letters, 2017, 2, 1494-1500.	8.8	89
97	Hybrid tandem quantum dot/organic photovoltaic cells with complementary near infrared absorption. Applied Physics Letters, 2017, 110, 223903.	1.5	23
98	Heterojunction oxide thin-film transistors with unprecedented electron mobility grown from solution. Science Advances, 2017, 3, e1602640.	4.7	148
99	Microwave-synthesized tin oxide nanocrystals for low-temperature solution-processed planar junction organo-halide perovskite solar cells. Journal of Materials Chemistry A, 2017, 5, 7759-7763.	5.2	45
100	A Solutionâ€Doped Polymer Semiconductor:Insulator Blend for Thermoelectrics. Advanced Science, 2017, 4, 1600203.	5.6	72
101	Facile Doping and Workâ€Function Modification of Fewâ€Layer Graphene Using Molecular Oxidants and Reductants. Advanced Functional Materials, 2017, 27, 1602004.	7.8	25
102	Enhanced Electrical Conductivity of Molecularly p-Doped Poly(3-hexylthiophene) through Understanding the Correlation with Solid-State Order. Macromolecules, 2017, 50, 8140-8148.	2.2	135
103	Effects of High Temperature and Thermal Cycling on the Performance of Perovskite Solar Cells: Acceleration of Charge Recombination and Deterioration of Charge Extraction. ACS Applied Materials & Interfaces, 2017, 9, 35018-35029.	4.0	62
104	Laserâ€Printed Organic Thinâ€Film Transistors. Advanced Materials Technologies, 2017, 2, 1700167.	3.0	17
105	Intermediate-Sized Conjugated Donor Molecules for Organic Solar Cells: Comparison of Benzodithiophene and Benzobisthiazole-Based Cores. Chemistry of Materials, 2017, 29, 7880-7887.	3.2	17
106	Polymer Mainâ€Chain Substitution Effects on the Efficiency of Nonfullerene BHJ Solar Cells. Advanced Energy Materials, 2017, 7, 1700834.	10.2	80
107	Crossover from band-like to thermally activated charge transport in organic transistors due to strain-induced traps. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6739-E6748.	3.3	77
108	Molecular Doping of the Hole-Transporting Layer for Efficient, Single-Step-Deposited Colloidal Quantum Dot Photovoltaics. ACS Energy Letters, 2017, 2, 1952-1959.	8.8	45

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109	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.	8.8	47
110	Stable high efficiency two-dimensional perovskite solar cells via cesium doping. Energy and Environmental Science, 2017, 10, 2095-2102.	15.6	588
111	An automatic window opening system to prevent drowning in vehicles sinking in water. Cogent Engineering, 2017, 4, 1347990.	1.1	5
112	Organic Thinâ€Film Transistors: Laserâ€Printed Organic Thinâ€Film Transistors (Adv. Mater. Technol.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.0	0
113	Hybrid organicâ€“inorganic inks flatten the energy landscape in colloidal quantum dotÂsolids. Nature Materials, 2017, 16, 258-263.	13.3	563
114	Hybrid Perovskite Thinâ€Film Photovoltaics: In Situ Diagnostics and Importance of the Precursor Solvate Phases. Advanced Materials, 2017, 29, 1604113.	11.1	155
115	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
116	Radio Frequency Coplanar ZnO Schottky Nanodiodes Processed from Solution on Plastic Substrates. Small, 2016, 12, 1993-2000.	5.2	48
117	Vertical Phase Separation in Small Molecule:Polymer Blend Organic Thin Film Transistors Can Be Dynamically Controlled. Advanced Functional Materials, 2016, 26, 1737-1746.	7.8	98
118	Thin Film Transistors: Contact-Induced Nucleation in High-Performance Bottom-Contact Organic Thin Film Transistors Manufactured by Large-Area Compatible Solution Processing (Adv. Funct. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	7.8	2
119	Hybrid Modulationâ€Doping of Solutionâ€Processed Ultrathin Layers of ZnO Using Molecular Dopants. Advanced Materials, 2016, 28, 3952-3959.	11.1	16
120	Electrical limit of silver nanowire electrodes: Direct measurement of the nanowire junction resistance. Applied Physics Letters, 2016, 108, .	1.5	41
121	Ultra-low p-doping of poly(3-hexylthiophene) and its impact on polymer aggregation and photovoltaic performance. Organic Photonics and Photovoltaics, 2016, 4, .	1.3	3
122	Highly efficient polymer solar cells with printed photoactive layer: rational process transfer from spin-coating. Journal of Materials Chemistry A, 2016, 4, 16036-16046.	5.2	57
123	Remote Molecular Doping of Colloidal Quantum Dot Photovoltaics. ACS Energy Letters, 2016, 1, 922-930.	8.8	40
124	Morphology changes upon scaling a high-efficiency, solution-processed solar cell. Energy and Environmental Science, 2016, 9, 2835-2846.	15.6	170
125	Solution-processable MoOx nanocrystals enable highly efficient reflective and semitransparent polymer solar cells. Nano Energy, 2016, 28, 277-287.	8.2	27
126	Donor and Acceptor Unit Sequences Influence Material Performance in Benzo[1,2â€<i>b</i>:4,5â€<i>b</i>â€²]dithiopheneâ€“6,7â€Difluoroquinoxaline Small Molecule Donors for BHJ Solar Cells. Advanced Functional Materials, 2016, 26, 7103-7114.	7.8	26

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127	The Roles of Structural Order and Intermolecular Interactions in Determining Ionization Energies and Chargeâ€Transfer State Energies in Organic Semiconductors. Advanced Energy Materials, 2016, 6, 1601211.	10.2	45
128	Optoelectronic and photovoltaic properties of the air-stable organohalide semiconductor (CH₃NH₃)₃Bi₂I₉. Journal of Materials Chemistry A, 2016, 4, 12504-12515.	5.2	151
129	Molecular Design of Semiconducting Polymers for High-Performance Organic Electrochemical Transistors. Journal of the American Chemical Society, 2016, 138, 10252-10259.	6.6	270
130	Carrier Transport Enhancement in Conjugated Polymers through Interfacial Self-Assembly of Solution-State Aggregates. ACS Applied Materials & Interfaces, 2016, 8, 19649-19657.	4.0	15
131	N-type organic electrochemical transistors with stability in water. Nature Communications, 2016, 7, 13066.	5.8	242
132	Reduced voltage losses yield 10% efficient fullerene free organic solar cells with >1 V open circuit voltages. Energy and Environmental Science, 2016, 9, 3783-3793.	15.6	477
133	Surface Restructuring of Hybrid Perovskite Crystals. ACS Energy Letters, 2016, 1, 1119-1126.	8.8	140
134	Mesostructured Fullerene Electrodes for Highly Efficient nâ€"iâ€"p Perovskite Solar Cells. ACS Energy Letters, 2016, 1, 1049-1056.	8.8	37
135	Contactâ€Induced Nucleation in Highâ€Performance Bottomâ€Contact Organic Thin Film Transistors Manufactured by Largeâ€Area Compatible Solution Processing. Advanced Functional Materials, 2016, 26, 2371-2378.	7.8	71
136	Doubleâ€Sided Junctions Enable Highâ€Performance Colloidalâ€Quantumâ€Dot Photovoltaics. Advanced Materials, 2016, 28, 4142-4148.	11.1	121
137	KO^{<i>t</i>}Bu-Initiated Aryl Câ€"H Iodination: A Powerful Tool for the Synthesis of High Electron Affinity Compounds. Journal of the American Chemical Society, 2016, 138, 3946-3949.	6.6	57
138	10-fold enhancement in light-driven water splitting using niobium oxynitride microcone array films. Solar Energy Materials and Solar Cells, 2016, 151, 149-153.	3.0	27
139	Quasi Two-Dimensional Dye-Sensitized In₂O₃ Phototransistors for Ultrahigh Responsivity and Photosensitivity Photodetector Applications. ACS Applied Materials & Interfaces, 2016, 8, 4894-4902.	4.0	61
140	Ligand-Stabilized Reduced-Dimensionality Perovskites. Journal of the American Chemical Society, 2016, 138, 2649-2655.	6.6	1,157
141	Morphology Changes Upon Scaling a High-Efficiency, Solution-Processed Solar Cell From Spin-Coating to Roll-to-Roll Coating. Energy and Environmental Science, 2016, 9, .	15.6	4
142	Quantum Dots: Overcoming the Cutâ€Off Charge Transfer Bandgaps at the PbS Quantum Dot Interface (Adv. Funct. Mater. 48/2015). Advanced Functional Materials, 2015, 25, 7548-7548.	7.8	0
143	Photovoltaics: Highly Efficient Hybrid Photovoltaics Based on Hyperbranched Threeâ€Dimensional TiO₂ Electron Transporting Materials (Adv. Mater. 18/2015). Advanced Materials, 2015, 27, 2814-2814.	11.1	1
144	A Thieno[3,2â€<i>b</i>][1]benzothiophene Isoindigo Building Block for Additiveâ€•and Annealingâ€Free Highâ€Performance Polymer Solar Cells. Advanced Materials, 2015, 27, 4702-4707.	11.1	120

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145	Synergistic Impact of Solvent and Polymer Additives on the Film Formation of Small Molecule Blend Films for Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2015, 5, 1501121.	10.2	56
146	A Novel Framework for Visual Detection and Exploration of Performance Bottlenecks in Organic Photovoltaic Solar Cell Materials. Computer Graphics Forum, 2015, 34, 401-410.	1.8	5
147	Toward Additiveâ€Free Smallâ€Molecule Organic Solar Cells: Roles of the Donor Crystallization Pathway and Dynamics. Advanced Materials, 2015, 27, 7285-7292.	11.1	56
148	Overcoming the Cutâ€Off Charge Transfer Bandgaps at the PbS Quantum Dot Interface. Advanced Functional Materials, 2015, 25, 7435-7441.	7.8	18
149	16.1% Efficient Hysteresisâ€Free Mesostructured Perovskite Solar Cells Based on Synergistically Improved ZnO Nanorod Arrays. Advanced Energy Materials, 2015, 5, 1500568.	10.2	222
150	Solution-printed organic semiconductor blends exhibiting transport properties on par with single crystals. Nature Communications, 2015, 6, 8598.	5.8	219
151	Bromination of graphene: a new route to making high performance transparent conducting electrodes with low optical losses (Presentation Recording). , 2015, , .		0
152	Signatures of Quantized Energy States in Solutionâ€Processed Ultrathin Layers of Metalâ€Oxide Semiconductors and Their Devices. Advanced Functional Materials, 2015, 25, 1727-1736.	7.8	36
153	Bromination of Graphene: A New Route to Making High Performance Transparent Conducting Electrodes with Low Optical Losses. ACS Applied Materials & Interfaces, 2015, 7, 17692-17699.	4.0	41
154	Impact of Molecular Orientation and Spontaneous Interfacial Mixing on the Performance of Organic Solar Cells. Chemistry of Materials, 2015, 27, 5597-5604.	3.2	40
155	On the relation between chemical composition and optical properties of detonation nanodiamonds. Carbon, 2015, 94, 79-84.	5.4	45
156	Highly efficient organic solar cells based on a robust room-temperature solution-processed copper iodide hole transporter. Nano Energy, 2015, 16, 458-469.	8.2	41
157	Coreâ€"shell heterostructured metal oxide arrays enable superior light-harvesting and hysteresis-free mesoscopic perovskite solar cells. Nanoscale, 2015, 7, 12812-12819.	2.8	51
158	Entanglements in marginal solutions: a means of tuning pre-aggregation of conjugated polymers with positive implications for charge transport. Journal of Materials Chemistry C, 2015, 3, 7394-7404.	2.7	75
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