Xiaotian Hu

List of Publications by Year
in descending order

128	6,056	66343 42	82547 72
papers	citations	h-index	g-index

132	132	132	6296
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Photonic crystals for perovskiteâ€based optoelectronic applications. Nano Select, 2022, 3, 39-50.	3.7	4
2	Controllable printing of large-scale compact perovskite films for flexible photodetectors. Nano Research, 2022, 15, 1547-1553.	10.4	30
3	Atmospheric stable and flexible Sn-based perovskite solar cells via a bio-inspired antioxidative crystal template. Journal of Energy Chemistry, 2022, 66, 612-618.	12.9	10
4	Novel Narrow Bandgap Terpolymer Donors Enables Record Performance for Semitransparent Organic Solar Cells Based on Allâ€Narrow Bandgap Semiconductors. Advanced Functional Materials, 2022, 32, .	14.9	52
5	Printable and stable all-polymer solar cells based on non-conjugated polymer acceptors with excellent mechanical robustness. Science China Chemistry, 2022, 65, 182-189.	8.2	31
6	Modulation of Vertical Component Distribution for Largeâ€Area Thickâ€Film Organic Solar Cells. Solar Rrl, 2022, 6, 2100838.	5.8	9
7	An effective and economical encapsulation method for trapping lead leakage in rigid and flexible perovskite photovoltaics. Nano Energy, 2022, 93, 106853.	16.0	49
8	Scalable Flexible Perovskite Solar Cells Based on a Crystalline and Printable Template with Intelligent Temperature Sensitivity. Solar Rrl, 2022, 6, .	5.8	9
9	Advancements in organic small molecule hole-transporting materials for perovskite solar cells: past and future. Journal of Materials Chemistry A, 2022, 10, 5044-5081.	10.3	69
10	A general enlarging shear impulse approach to green printing large-area and efficient organic photovoltaics. Energy and Environmental Science, 2022, 15, 2130-2138.	30.8	38
11	Pseudoâ€Planar Heterojunction Organic Photovoltaics with Optimized Light Utilization for Printable Solar Windows. Advanced Materials, 2022, 34, e2201604.	21.0	30
12	Recent progress in organic solar cells (Part I material science). Science China Chemistry, 2022, 65, 224-268.	8.2	349
13	Sulfonated Graphene Aerogels Enable Safeâ€toâ€Use Flexible Perovskite Solar Modules. Advanced Energy Materials, 2022, 12, .	19.5	46
14	A 1D:2D structured AgNW:MXene composite transparent electrode with high mechanical robustness for flexible photovoltaics. Journal of Materials Chemistry C, 2022, 10, 8625-8633.	5.5	18
15	A Bionic Interface to Suppress the Coffeeâ€Ring Effect for Reliable and Flexible Perovskite Modules with a Nearâ€90% Yield Rate. Advanced Materials, 2022, 34, e2201840.	21.0	54
16	Recent progress in organic solar cells (Part II device engineering). Science China Chemistry, 2022, 65, 1457-1497.	8.2	157
17	3D Networkâ€Assisted Crystallization for Fully Printed Perovskite Solar Cells with Superior Irradiation Stability. Advanced Functional Materials, 2022, 32, .	14.9	8
18	Cementitious grain-boundary passivation for flexible perovskite solar cells with superior environmental stability and mechanical robustness. Science Bulletin, 2021, 66, 527-535.	9.0	54

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19	Regulating crystallization to maintain balanced carrier mobility via ternary strategy in blade-coated flexible organic solar cells. Organic Electronics, 2021, 89, 106027.	2.6	12
20	Recent Advances of PEDOT in Flexible Energy Conversion and Storage Devices. Acta Chimica Sinica, 2021, 79, 853.	1.4	3
21	An <i>in situ</i> bifacial passivation strategy for flexible perovskite solar module with mechanical robustness by roll-to-roll fabrication. Journal of Materials Chemistry A, 2021, 9, 5759-5768.	10.3	48
22	Ultra-flexible and waterproof perovskite photovoltaics for washable power source applications. Chemical Communications, 2021, 57, 6320-6323.	4.1	12
23	A non-wetting and conductive polyethylene dioxothiophene hole transport layer for scalable and flexible perovskite solar cells. Science China Chemistry, 2021, 64, 834-843.	8.2	21
24	Mechanically Robust and Flexible Perovskite Solar Cells via a Printable and Gelatinous Interface. ACS Applied Materials & Interfaces, 2021, 13, 19959-19969.	8.0	39
25	Wearable Tinâ€Based Perovskite Solar Cells Achieved by a Crystallographic Size Effect. Angewandte Chemie - International Edition, 2021, 60, 14693-14700.	13.8	53
26	Wearable Tinâ€Based Perovskite Solar Cells Achieved by a Crystallographic Size Effect. Angewandte Chemie, 2021, 133, 14814-14821.	2.0	12
27	Bending-stability Interfacial Layer as Dual Electron Transport Layer for Flexible Organic Photovoltaics. Chinese Journal of Polymer Science (English Edition), 2021, 39, 1441-1447.	3.8	23
28	Current Development toward Commercialization of Metalâ€Halide Perovskite Photovoltaics. Advanced Optical Materials, 2021, 9, 2100390.	7.3	15
29	Spontaneous Formation of Upper Gradient 2D Structure for Efficient and Stable Quasiâ€2D Perovskites. Advanced Materials, 2021, 33, e2101823.	21.0	36
30	Releasing Nanocapsules for Highâ€Throughput Printing of Stable Perovskite Solar Cells. Advanced Energy Materials, 2021, 11, 2101291.	19.5	18
31	Printable and Homogeneous NiO<i>_x</i> Hole Transport Layers Prepared by a Polymerâ€Network Gel Method for Largeâ€Area and Flexible Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2106495.	14.9	51
32	A Highly Tolerant Printing for Scalable and Flexible Perovskite Solar Cells. Advanced Functional Materials, 2021, 31, 2107726.	14.9	43
33	Toward efficient perovskite solar cells by planar imprint for improved perovskite film quality and granted bifunctional barrier. Journal of Materials Chemistry A, 2021, 9, 16178-16186.	10.3	21
34	A Biomimetic Selfâ€Shield Interface for Flexible Perovskite Solar Cells with Negligible Lead Leakage. Advanced Functional Materials, 2021, 31, 2106460.	14.9	54
35	Flexible perovskite solar cells: device design and perspective. Flexible and Printed Electronics, 2020, 5, 013002.	2.7	17
36	Bioinspired Patterned Bubbles for Broad and Low-Frequency Acoustic Blocking. ACS Applied Materials & Interfaces, 2020, 12, 1757-1764.	8.0	35

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37	InnenrÃ¼cktitelbild: Stretchable Perovskite Solar Cells with Recoverable Performance (Angew. Chem.) Tj ETQq1 1 0.784314 rgBT /Overl	2.0	1
38	Printable and Largeâ€Area Organic Solar Cells Enabled by a Ternary Pseudoâ€Planar Heterojunction Strategy. Advanced Functional Materials, 2020, 30, 2003223.	14.9	59
39	Frontispiz: Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie, 2020, 132, .	2.0	0
40	Atomic Layer Deposition of Metal Oxides in Perovskite Solar Cells: Present and Future. Small Methods, 2020, 4, 2000588.	8.6	21
41	Concerted regulation on vertical orientation and film quality of two-dimensional ruddlesden-popper perovskite layer for efficient solar cells. Science China Chemistry, 2020, 63, 1675-1683.	8.2	9
42	Frontispiece: Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie - International Edition, 2020, 59, .	13.8	0
43	Stretchable Perovskite Solar Cells with Recoverable Performance. Angewandte Chemie - International Edition, 2020, 59, 16602-16608.	13.8	122
44	Stretchable Perovskite Solar Cells with Recoverable Performance. Angewandte Chemie, 2020, 132, 16745.	2.0	8
45	Bio-inspired vertebral design for scalable and flexible perovskite solar cells. Nature Communications, 2020, 11, 3016.	12.8	173
46	Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie - International Edition, 2020, 59, 14234-14240.	13.8	17
47	Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie, 2020, 132, 14340-14346.	2.0	0
48	Stabilized and Operational PbI₂ Precursor Ink for Large-Scale Perovskite Solar Cells via Two-Step Blade-Coating. Journal of Physical Chemistry C, 2020, 124, 8129-8139.	3.1	23
49	An Effective Method for Recovering Nonradiative Recombination Loss in Scalable Organic Solar Cells. Advanced Functional Materials, 2020, 30, 2000417.	14.9	31
50	Controllable Growth of Highâ€Quality Inorganic Perovskite Microplate Arrays for Functional Optoelectronics. Advanced Materials, 2020, 32, e1908006.	21.0	66
51	Solution preparation of molybdenum oxide on graphene: a hole transport layer for efficient perovskite solar cells with a 1.12ÂV high open-circuit voltage. Journal of Materials Science: Materials in Electronics, 2020, 31, 6248-6254.	2.2	10
52	Omnidirectional Photodetectors Based on Spatial Resonance Asymmetric Facade via a 3D Selfâ€Standing Strategy. Advanced Materials, 2020, 32, e1907280.	21.0	14
53	Low-temperature interfacial engineering for flexible CsPbI₂Br perovskite solar cells with high performance beyond 15%. Journal of Materials Chemistry A, 2020, 8, 5308-5314.	10.3	40
54	Photodetectors: Omnidirectional Photodetectors Based on Spatial Resonance Asymmetric Facade via a 3D Selfâ€Standing Strategy (Adv. Mater. 16/2020). Advanced Materials, 2020, 32, 2070128.	21.0	0

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55	Blade-coated efficient and stable large-area organic solar cells with optimized additive. Organic Electronics, 2020, 83, 105771.	2.6	18
56	In Situ Inkjet Printing of the Perovskite Single-Crystal Array-Embedded Polydimethylsiloxane Film for Wearable Light-Emitting Devices. ACS Applied Materials & Interfaces, 2020, 12, 22157-22162.	8.0	53
57	A General Approach for Labâ€toâ€Manufacturing Translation on Flexible Organic Solar Cells. Advanced Materials, 2019, 31, e1903649.	21.0	114
58	Silver Mesh Electrodes via Electroless Deposition-Coupled Inkjet-Printing Mask Technology for Flexible Polymer Solar Cells. Langmuir, 2019, 35, 9713-9720.	3.5	20
59	Perovskite Solar Cells: Patterned Wettability Surface for Competitionâ€Driving Largeâ€Grained Perovskite Solar Cells (Adv. Energy Mater. 25/2019). Advanced Energy Materials, 2019, 9, 1970098.	19.5	2
60	Lowâ€Dimensional Perovskites with Diammonium and Monoammonium Alternant Cations for Highâ€Performance Photovoltaics. Advanced Materials, 2019, 31, e1901966.	21.0	96
61	Waterâ€Resistant and Flexible Perovskite Solar Cells via a Glued Interfacial Layer. Advanced Functional Materials, 2019, 29, 1902629.	14.9	89
62	A Mechanically Robust Conducting Polymer Network Electrode for Efficient Flexible Perovskite Solar Cells. Joule, 2019, 3, 2205-2218.	24.0	175
63	Steerable Droplet Bouncing for Precise Materials Transportation. Advanced Materials Interfaces, 2019, 6, 1901033.	3.7	35
64	Flexible Solar Cells: A General Approach for Labâ€toâ€Manufacturing Translation on Flexible Organic Solar Cells (Adv. Mater. 41/2019). Advanced Materials, 2019, 31, 1970294.	21.0	5
65	Bubble Architectures for Locally Resonant Acoustic Metamaterials. Advanced Functional Materials, 2019, 29, 1906984.	14.9	56
66	Perovskite Solar Cells: Lowâ€Dimensional Perovskites with Diammonium and Monoammonium Alternant Cations for Highâ€Performance Photovoltaics (Adv. Mater. 35/2019). Advanced Materials, 2019, 31, 1970252.	21.0	6
67	Nacre-inspired crystallization and elastic â€œbrick-and-mortarâ€• structure for a wearable perovskite solar module. Energy and Environmental Science, 2019, 12, 979-987.	30.8	114
68	Perovskite Solar Cells: Highâ€Performance Perovskite Solar Cells with Excellent Humidity and Thermoâ€Stability via Fluorinated Perylenediimide (Adv. Energy Mater. 18/2019). Advanced Energy Materials, 2019, 9, 1970064.	19.5	8
69	Patterned Wettability Surface for Competitionâ€Driving Largeâ€Grained Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900838.	19.5	44
70	Patterned flexible graphene sensor <i>via</i> printing and interface assembly. Journal of Materials Chemistry C, 2019, 7, 6317-6322.	5.5	11
71	Hole Transportation: Enhanced Hole Transportation for Inverted Tinâ€Based Perovskite Solar Cells with High Performance and Stability (Adv. Funct. Mater. 18/2019). Advanced Functional Materials, 2019, 29, 1970117.	14.9	4
72	Highâ€Performance Perovskite Solar Cells with Excellent Humidity and Thermoâ€Stability via Fluorinated Perylenediimide. Advanced Energy Materials, 2019, 9, 1900198.	19.5	205

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73	Fully Printed Flexible Crossbar Memory Devices with Tipâ€Enhanced Micro/Nanostructures. Advanced Electronic Materials, 2019, 5, 1900131.	5.1	8
74	Wearable Power Source: A Newfangled Feasibility for Perovskite Photovoltaics. ACS Energy Letters, 2019, 4, 1065-1072.	17.4	45
75	Enhanced Hole Transportation for Inverted Tinâ€Based Perovskite Solar Cells with High Performance and Stability. Advanced Functional Materials, 2019, 29, 1808059.	14.9	133
76	Fully Printed Geranium-Inspired Encapsulated Arrays for Quantitative Odor Releasing. ACS Omega, 2019, 4, 19977-19982.	3.5	4
77	Soft Acoustic Metamaterials: Bubble Architectures for Locally Resonant Acoustic Metamaterials (Adv.) Tj ETQq1 1 0.784314 rgBT /Overl	14.9	6
78	Dopamine-crosslinked TiO2/perovskite layer for efficient and photostable perovskite solar cells under full spectral continuous illumination. Nano Energy, 2019, 56, 733-740.	16.0	201
79	High-efficiency perovskite solar cells based on self-assembly n-doped fullerene derivative with excellent thermal stability. Journal of Power Sources, 2019, 413, 459-466.	7.8	24
80	Roll-To-Roll Printing of Meter-Scale Composite Transparent Electrodes with Optimized Mechanical and Optical Properties for Photoelectronics. ACS Applied Materials & Interfaces, 2018, 10, 8917-8925.	8.0	26
81	Inkjet manipulated homogeneous large size perovskite grains for efficient and large-area perovskite solar cells. Nano Energy, 2018, 46, 203-211.	16.0	155
82	Diffractionâ€Grated Perovskite Induced Highly Efficient Solar Cells through Nanophotonic Light Trapping. Advanced Energy Materials, 2018, 8, 1702960.	19.5	119
83	Grain Boundary Modification via F4TCNQ To Reduce Defects of Perovskite Solar Cells with Excellent Device Performance. ACS Applied Materials & Interfaces, 2018, 10, 1909-1916.	8.0	115
84	Printable Skinâ€Driven Mechanoluminescence Devices via Nanodoped Matrix Modification. Advanced Materials, 2018, 30, e1800291.	21.0	178
85	Solar Cells: Diffractionâ€Grated Perovskite Induced Highly Efficient Solar Cells through Nanophotonic Light Trapping (Adv. Energy Mater. 12/2018). Advanced Energy Materials, 2018, 8, 1870052.	19.5	3
86	Patterned Arrays of Functional Lateral Heterostructures via Sequential Templateâ€Directed Printing. Small, 2018, 14, e1800792.	10.0	8
87	A 3D Selfâ€Shaping Strategy for Nanoresolution Multicomponent Architectures. Advanced Materials, 2018, 30, 1703963.	21.0	39
88	A general strategy for printing colloidal nanomaterials into one-dimensional micro/nanolines. Nanoscale, 2018, 10, 22374-22380.	5.6	20
89	Phase Pure 2D Perovskite for Highâ€Performance 2Dâ€“3D Heterostructured Perovskite Solar Cells. Advanced Materials, 2018, 30, e1805323.	21.0	244
90	Bioinspired Synergy Sensor Chip of Photonic Crystals-Graphene Oxide for Multiamines Recognition. Analytical Chemistry, 2018, 90, 6371-6375.	6.5	19

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91	High efficient perovskite whispering-gallery solar cells. Nano Energy, 2018, 51, 556-562.	16.0	51
92	Janus Structural Color from a 2D Photonic Crystal Hybrid with a Fabryâ€“Perot Cavity. Advanced Optical Materials, 2018, 6, 1800651.	7.3	53
93	31â€1: <i>Invited Paper:</i> Green Printing Technology for Manufacturing Functional Devices. Digest of Technical Papers SID International Symposium, 2018, 49, 395-396.	0.3	0
94	Large-scale ultra-adhesive and mechanically flexible silver grids transparent electrodes by solution process. Organic Electronics, 2018, 61, 296-303.	2.6	14
95	A General Approach for Fluid Patterning and Application in Fabricating Microdevices. Advanced Materials, 2018, 30, e1802172.	21.0	36
96	Butanedithiol Solvent Additive Extracting Fullerenes from Donor Phase To Improve Performance and Photostability in Polymer Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 9918-9925.	8.0	32
97	Room temperature processed polymers for high-efficient polymer solar cells with power conversion efficiency over 9%. Nano Energy, 2017, 37, 32-39.	16.0	50
98	Crystallization and conformation engineering of solution-processed polymer transparent electrodes with high conductivity. Journal of Materials Chemistry C, 2017, 5, 382-389.	5.5	36
99	Solar Cells: Nucleation and Crystallization Control via Polyurethane to Enhance the Bendability of Perovskite Solar Cells with Excellent Device Performance (Adv. Funct. Mater. 41/2017). Advanced Functional Materials, 2017, 27, .	14.9	1
100	Enhanced Efficiency of Perovskite Solar Cells by using Coreâ€“Ultrathin Shell Structure Ag@SiO₂ Nanowires as Plasmonic Antennas. Advanced Electronic Materials, 2017, 3, 1700169.	5.1	24
101	Rollâ€toâ€Roll Fabrication of Flexible Orientated Graphene Transparent Electrodes by Shear Force and Oneâ€Step Reducing Postâ€Treatment. Advanced Materials Technologies, 2017, 2, 1700138.	5.8	24
102	Wearable Largeâ€Scale Perovskite Solarâ€Power Source via Nanocellular Scaffold. Advanced Materials, 2017, 29, 1703236.	21.0	152
103	Nucleation and Crystallization Control via Polyurethane to Enhance the Bendability of Perovskite Solar Cells with Excellent Device Performance. Advanced Functional Materials, 2017, 27, 1703061.	14.9	175
104	Non-halogenated solvent-processed single-junction polymer solar cells with 9.91% efficiency and improved photostability. Nano Energy, 2017, 41, 27-34.	16.0	37
105	Large-Scale Stretchable Semiembedded Copper Nanowire Transparent Conductive Films by an Electrospinning Template. ACS Applied Materials & Interfaces, 2017, 9, 26468-26475.	8.0	69
106	Wearable Electronics: Wearable Largeâ€Scale Perovskite Solarâ€Power Source via Nanocellular Scaffold (Adv. Mater. 42/2017). Advanced Materials, 2017, 29, .	21.0	0
107	Crystalline and active additive for optimization morphology and absorption of narrow bandgap polymer solar cells. Journal of Polymer Science Part A, 2017, 55, 726-733.	2.3	4
108	In situ polymerization of ethylenedioxythiophene from sulfonated carbon nanotube templates: toward high efficiency ITO-free solar cells. Journal of Materials Chemistry A, 2016, 4, 6645-6652.	10.3	37

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109	Post-annealing to recover the reduced open-circuit voltage caused by solvent annealing in organic solar cells. Journal of Materials Chemistry A, 2016, 4, 6158-6166.	10.3	28
110	A homogeneous ethanedithiol doped ZnO electron transporting layer for polymer solar cells. Journal of Materials Chemistry C, 2016, 4, 8738-8744.	5.5	15
111	Pure- or mixed-solvent assisted treatment for crystallization dynamics of planar lead halide perovskite solar cells. Solar Energy Materials and Solar Cells, 2016, 155, 166-175.	6.2	19
112	Flexible, hole transporting layer-free and stable CH 3 NH 3 PbI 3 /PC 61 BM planar heterojunction perovskite solar cells. Organic Electronics, 2016, 30, 281-288.	2.6	69
113	Enhancing the grain size of organic halide perovskites by sulfonate-carbon nanotube incorporation in high performance perovskite solar cells. Chemical Communications, 2016, 52, 5674-5677.	4.1	77
114	Surface treatment by binary solvents induces the crystallization of a small molecular donor for enhanced photovoltaic performance. Physical Chemistry Chemical Physics, 2016, 18, 735-742.	2.8	13
115	Synergistic dispersible graphene: Sulfonated carbon nanotubes integrated with PEDOT for large-scale transparent conductive electrodes. Carbon, 2016, 98, 15-23.	10.3	22
116	Versatile MoS2 Nanosheets in ITO-Free and Semi-transparent Polymer Power-generating Glass. Scientific Reports, 2015, 5, 12161.	3.3	19
117	Low Work-function Poly(3,4-ethylenedioxylenethiophene): Poly(styrene sulfonate) as Electron-transport Layer for High-efficient and Stable Polymer Solar Cells. Scientific Reports, 2015, 5, 12839.	3.3	44
118	Rollâ€toâ€Roll Production of Graphene Hybrid Electrodes for Highâ€Efficiency, Flexible Organic Photoelectronics. Advanced Materials Interfaces, 2015, 2, 1500445.	3.7	29
119	In Situ Formation of ZnO in Graphene: A Facile Way To Produce a Smooth and Highly Conductive Electron Transport Layer for Polymer Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 16078-16085.	8.0	28
120	A comprehensive study of sulfonated carbon materials as conductive composites for polymer solar cells. Physical Chemistry Chemical Physics, 2015, 17, 4137-4145.	2.8	64
121	One-dimensional graphene nanoribbons hybridized with carbon nanotubes as cathode and anode interfacial layers for high performance solar cells. RSC Advances, 2015, 5, 49614-49622.	3.6	18
122	A Facile Approach To Fabricate High-Performance Polymer Solar Cells with an Annealing-Free and Simple Device of Three Layers. Journal of Physical Chemistry C, 2015, 119, 11619-11624.	3.1	4
123	Poly(3-butylthiophene) Inducing Crystallization of Small Molecule Donor for Enhanced Photovoltaic Performance. Journal of Physical Chemistry C, 2015, 119, 23310-23318.	3.1	15
124	Alcohol-Soluble n-Type Conjugated Polyelectrolyte as Electron Transport Layer for Polymer Solar Cells. Macromolecules, 2015, 48, 5578-5586.	4.8	97
125	Poly(3-butylthiophene) nanowires inducing crystallization of poly(3-hexylthiophene) for enhanced photovoltaic performance. Journal of Materials Chemistry C, 2015, 3, 809-819.	5.5	23
126	Universal and Versatile MoO₃-Based Hole Transport Layers for Efficient and Stable Polymer Solar Cells. Journal of Physical Chemistry C, 2014, 118, 9930-9938.	3.1	53

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127	Large-Scale Flexible and Highly Conductive Carbon Transparent Electrodes via Roll-to-Roll Process and Its High Performance Lab-Scale Indium Tin Oxide-Free Polymer Solar Cells. Chemistry of Materials, 2014, 26, 6293-6302.	6.7	83
128	Solution processed and self-assembled polymerizable fullerenes/metal oxide as an interlayer for high efficient inverted polymer solar cells. Journal of Materials Chemistry C, 2014, 2, 10282-10290.	5.5	12