Ruixiang Peng

List of Publications by Year
in descending order

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45 papers	2,679 citations	279778 23 h-index	243610 44 g-index
45 all docs	45 docs citations	45 times ranked	2949 citing authors

#	Article	IF	Citations
1	16.67% Rigid and 14.06% Flexible Organic Solar Cells Enabled by Ternary Heterojunction Strategy. Advanced Materials, 2019, 31, e1902210.	21.0	497
2	Efficient polymer solar cells employing a non-conjugated small-molecule electrolyte. Nature Photonics, 2015, 9, 520-524.	31.4	412
3	Ternary Nonfullerene Polymer Solar Cells with 12.16% Efficiency by Introducing One Acceptor with Cascading Energy Level and Complementary Absorption. Advanced Materials, 2018, 30, 1703005.	21.0	182
4	Allâ€Solutionâ€Processed Metalâ€Oxideâ€Free Flexible Organic Solar Cells with Over 10% Efficiency. Advanced Materials, 2018, 30, e1800075.	21.0	165
5	13.34â€‰% Efficiency Nonâ€Fullerene Allâ€Smallâ€Molecule Organic Solar Cells Enabled by Modulating the Crystallinity of Donors via a Fluorination Strategy. Angewandte Chemie - International Edition, 2020, 59, 2808-2815.	13.8	161
6	Foldable Semitransparent Organic Solar Cells for Photovoltaic and Photosynthesis. Advanced Energy Materials, 2020, 10, 2000136.	19.5	120
7	Simultaneous Bottomâ€Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Smallâ€Molecule Electrolytes. Advanced Materials, 2019, 31, e1903239.	21.0	89
8	16.55% efficiency ternary organic solar cells enabled by incorporating a small molecular donor. Journal of Materials Chemistry A, 2019, 7, 25894-25899.	10.3	88
9	Solvent Annealing Enables 15.39% Efficiency Allâ€Smallâ€Molecule Solar Cells through Improved Molecule Interconnection and Reduced Nonâ€Radiative Loss. Advanced Energy Materials, 2021, 11, 2100800.	19.5	86
10	Crumple Durable Ultraflexible Organic Solar Cells with an Excellent Powerâ€perâ€Weight Performance. Advanced Functional Materials, 2021, 31, 2102694.	14.9	78
11	Over 14% efficiency nonfullerene all-small-molecule organic solar cells enabled by improving the ordering of molecular donors via side-chain engineering. Journal of Materials Chemistry A, 2020, 8, 7405-7411.	10.3	69
12	Graphene:silver nanowire composite transparent electrode based flexible organic solar cells with 13.4% efficiency. Journal of Materials Chemistry A, 2019, 7, 22021-22028.	10.3	59
13	Bendable and foldable flexible organic solar cells based on Ag nanowire films with 10.30% efficiency. Journal of Materials Chemistry A, 2019, 7, 3737-3744.	10.3	47
14	Efficient polymer solar cells based on the synergy effect of a novel non-conjugated small-molecule electrolyte and polar solvent. Journal of Materials Chemistry A, 2016, 4, 2530-2536.	10.3	46
15	Improved Efficiency in All-Small-Molecule Organic Solar Cells with Ternary Blend of Nonfullerene Acceptor and Chlorinated and Nonchlorinated Donors. ACS Applied Materials & Interfaces, 2019, 11, 44528-44535.	8.0	43
16	Schottky/pâ€n Cascade Heterojunction Constructed by Intentional nâ€Type Doping Perovskite Toward Efficient Electron Layerâ€Free Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800274.	5.8	43
17	Highly efficient non-fullerene polymer solar cells enabled by novel non-conjugated small-molecule cathode interlayers. Journal of Materials Chemistry A, 2018, 6, 6327-6334.	10.3	42
18	Over 14% Efficiency Folding-Flexible ITO-free Organic Solar Cells Enabled by Eco-friendly Acid-Processed Electrodes. IScience, 2020, 23, 100981.	4.1	40

#	Article	IF	Citations
19	Interface bonding engineering of a transparent conductive electrode towards highly efficient and mechanically flexible ITO-free organic solar cells. Journal of Materials Chemistry A, 2019, 7, 11460-11467.	10.3	39
20	Passivating Surface Defects of nâ€“SnO₂ Electron Transporting Layer by InP/ZnS Quantum Dots: Toward Efficient and Stable Organic Solar Cells. Advanced Electronic Materials, 2020, 6, 1901245.	5.1	35
21	A novel polymer donor based on dithieno[2,3-d:2â€²,3â€²-dâ€²â€²]benzo[1,2-b:4,5-bâ€²]dithiophene for highly efficient polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 2646-2652.	10.3	26
22	Flexible ITO-free organic solar cells over 10% by employing drop-coated conductive PEDOT:PSS transparent anodes. Science China Chemistry, 2019, 62, 500-505.	8.2	25
23	Synergistic Effect of Lewis Base Polymers and Graphene in Enhancing the Efficiency of Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 3928-3936.	5.1	25
24	Nonâ€Doped Skyâ€Blue OLEDs Based on Simple Structured AIE Emitters with High Efficiencies at Low Driven Voltages. Chemistry - an Asian Journal, 2017, 12, 2189-2196.	3.3	24
25	High efficiency ternary organic solar cells enabled by compatible dual-donor strategy with planar conjugated structures. Science China Chemistry, 2020, 63, 917-923.	8.2	24
26	Highly efficient polymer solar cells using a non-conjugated small-molecule zwitterion with enhancement of electron transfer and collection. Journal of Materials Chemistry A, 2016, 4, 14944-14948.	10.3	21
27	Multifunctional emitters for efficient simplified non-doped blueish green organic light emitting devices with extremely low efficiency roll-off. Journal of Materials Chemistry C, 2017, 5, 6527-6536.	5.5	21
28	Highly efficient polymer solar cells employing natural chlorophyllin as a cathode interfacial layer. Journal of Materials Chemistry A, 2018, 6, 464-468.	10.3	19
29	Ti₃C₂T_x/PEDOT:PSS Composite Interface Enables over 17% Efficiency Non-fullerene Organic Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 45789-45797.	8.0	19
30	High-Performance Polymer Solar Cells Employing Rhodamines as Cathode Interfacial Layers. ACS Applied Materials & Interfaces, 2017, 9, 27083-27089.	8.0	17
31	Benzophenone-based small molecular cathode interlayers with various polar groups for efficient polymer solar cells. Journal of Materials Chemistry A, 2017, 5, 10154-10160.	10.3	14
32	Synthesis, crystal structure, and polymerization of butterfly-shaped thieno[3,2-b]thiophene oligomers. New Journal of Chemistry, 2013, 37, 1189.	2.8	12
33	A Methodological Study on Tuning the Thermally Activated Delayed Fluorescent Performance by Molecular Constitution in Acridineâ€“Benzophenone Derivatives. Chemistry - an Asian Journal, 2018, 13, 1187-1191.	3.3	12
34	Performance and stability studies of inverted polymer solar cells with TiO2 film as a buffer layer. Applied Physics A: Materials Science and Processing, 2014, 114, 429-434.	2.3	11
35	13.34â€‰% Efficiency Nonâ€Fullerene Allâ€Smallâ€Molecule Organic Solar Cells Enabled by Modulating the Crystallinity of Donors via a Fluorination Strategy. Angewandte Chemie, 2020, 132, 2830-2837.	2.0	11
36	Multi-channel interface dipole of hyperbranched polymers with quasi-immovable hydrion to modification of cathode interface for high-efficiency polymer solar cells. Progress in Photovoltaics: Research and Applications, 2016, 24, 1044-1054.	8.1	9

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37	Highly Efficient Non-Fullerene Organic Solar Cells Using 4,8-Bis((2-ethylhexyl)oxy)benzo[1,2-b:4,5-bâ€²]dithiophene-Based Polymers as Additives. Macromolecules, 2018, 51, 4032-4039.	4.8	9
38	Significant Efficiency Improvement Enabled by CdSe/ZnS Quantum Dot Modifier in Organic Solar Cells. Solar Rrl, 2019, 3, 1900117.	5.8	9
39	Efficient Electron Transport Layer-Free Perovskite Solar Cells Enabled by Discontinuous Polar Molecular Films: A Story of New Materials and Old Ideas?. ACS Sustainable Chemistry and Engineering, 2021, 9, 936-943.	6.7	9
40	A simple and effective method via PH1000 modified Ag-Nanowires electrode enable efficient flexible nonfullerene organic solar cells. Organic Electronics, 2021, 94, 106172.	2.6	8
41	Efficient Enhancement of Electron Transport and Collection Capability in PTB7:PC 71 BMâ€based Solar Cells Enabled by Sulforhodamine Cathode Interlayers. Chemistry - an Asian Journal, 2019, 14, 1472-1476.	3.3	5
42	HOMO energy level regulation of novel conjugated copolymers for polymer solar cells. New Journal of Chemistry, 2015, 39, 6548-6554.	2.8	3
43	A new conjugated polymer PPV-PCN: synthesis, characterization, and applications. Polymer Bulletin, 2015, 72, 117-133.	3.3	3
44	Enhanced efficiency of organic solar cells via Si-based non-conjugated small-molecule electrolyte as cathode interlayer. Organic Electronics, 2020, 85, 105863.	2.6	2
45	Perovskite Solar Cells: Simultaneous Bottomâ€Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Smallâ€Molecule Electrolytes (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Over	21.95	140