

Hong-Zheng Chen

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301
papers

16,846
citations

61
h-index

120
g-index

321
ext. papers

20,557
ext. citations

10.7
avg, IF

7.2
L-index

#	Paper	IF	Citations
301	Graphene-like two-dimensional materials. <i>Chemical Reviews</i> , 2013 , 113, 3766-98	68.1	3191
300	Enhanced photovoltaic performance of CH ₃ NH ₃ PbI ₃ perovskite solar cells through interfacial engineering using self-assembling monolayer. <i>Journal of the American Chemical Society</i> , 2015 , 137, 2674-9	16.4	514
299	Over 17% efficiency ternary organic solar cells enabled by two non-fullerene acceptors working in an alloy-like model. <i>Energy and Environmental Science</i> , 2020 , 13, 635-645	35.4	462
298	Dopant-Free Hole-Transporting Material with a C _{3h} Symmetrical Truxene Core for Highly Efficient Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2016 , 138, 2528-31	16.4	395
297	A spirobifluorene and diketopyrrolopyrrole moieties based non-fullerene acceptor for efficient and thermally stable polymer solar cells with high open-circuit voltage. <i>Energy and Environmental Science</i> , 2016 , 9, 604-610	35.4	316
296	Recent advances in perovskite solar cells: efficiency, stability and lead-free perovskite. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 11462-11482	13	307
295	New Phase for Organic Solar Cell Research: Emergence of Y-Series Electron Acceptors and Their Perspectives. <i>ACS Energy Letters</i> , 2020 , 5, 1554-1567	20.1	301
294	An Unfused-Core-Based Nonfullerene Acceptor Enables High-Efficiency Organic Solar Cells with Excellent Morphological Stability at High Temperatures. <i>Advanced Materials</i> , 2018 , 30, 1705208	24	272
293	Highly Efficient Fullerene-Free Organic Solar Cells Operate at Near Zero Highest Occupied Molecular Orbital Offsets. <i>Journal of the American Chemical Society</i> , 2019 , 141, 3073-3082	16.4	251
292	Layer-by-Layer Processed Ternary Organic Photovoltaics with Efficiency over 18. <i>Advanced Materials</i> , 2021 , 33, e2007231	24	243
291	Orientation Regulation of Phenylethylammonium Cation Based 2D Perovskite Solar Cell with Efficiency Higher Than 11%. <i>Advanced Energy Materials</i> , 2018 , 8, 1702498	21.8	240
290	Antibacterial activity of two-dimensional MoS ₂ sheets. <i>Nanoscale</i> , 2014 , 6, 10126-33	7.7	221
289	Simple non-fused electron acceptors for efficient and stable organic solar cells. <i>Nature Communications</i> , 2019 , 10, 2152	17.4	214
288	Transparent electrodes for organic optoelectronic devices: a review. <i>Journal of Photonics for Energy</i> , 2014 , 4, 040990	1.2	191
287	Efficient Organic Solar Cells with Non-Fullerene Acceptors. <i>Small</i> , 2017 , 13, 1701120	11	185
286	Asymmetric Electron Acceptors for High-Efficiency and Low-Energy-Loss Organic Photovoltaics. <i>Advanced Materials</i> , 2020 , 32, e2001160	24	162
285	Molecular Engineered Hole-Extraction Materials to Enable Dopant-Free, Efficient p-i-n Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1700012	21.8	159

284	Highly Efficient Organic Solar Cells Based on S,N-Heteroacene Non-Fullerene Acceptors. <i>Chemistry of Materials</i> , 2018 , 30, 5429-5434	9.6	158
283	Vertically Oriented 2D Layered Perovskite Solar Cells with Enhanced Efficiency and Good Stability. <i>Small</i> , 2017 , 13, 1700611	11	158
282	Superhydrophobic cotton fabrics prepared by sol-gel coating of TiO and surface hydrophobization. <i>Science and Technology of Advanced Materials</i> , 2008 , 9, 035001	7.1	149
281	Recent progress in 2D/quasi-2D layered metal halide perovskites for solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 11063-11077	13	144
280	Precisely Controlling the Position of Bromine on the End Group Enables Well-Regular Polymer Acceptors for All-Polymer Solar Cells with Efficiencies over 15. <i>Advanced Materials</i> , 2020 , 32, e2005942	24	144
279	Engineering crystalline structures of two-dimensional MoS ₂ sheets for high-performance organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 7727-7733	13	124
278	Spiro Linkage as an Alternative Strategy for Promising Nonfullerene Acceptors in Organic Solar Cells. <i>Advanced Functional Materials</i> , 2015 , 25, 5954-5966	15.6	123
277	Interfacial engineering of self-assembled monolayer modified semi-roll-to-roll planar heterojunction perovskite solar cells on flexible substrates. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 24254-24260	13	115
276	16% efficiency all-polymer organic solar cells enabled by a finely tuned morphology via the design of ternary blend. <i>Joule</i> , 2021 , 5, 914-930	27.8	110
275	CBI activation: making diketopyrrolopyrrole derivatives easily accessible. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 2795	13	108
274	Highly Efficient Organic Solar Cells Consisting of Double Bulk Heterojunction Layers. <i>Advanced Materials</i> , 2017 , 29, 1606729	24	104
273	Solution-grown organic single-crystalline p-n junctions with ambipolar charge transport. <i>Advanced Materials</i> , 2013 , 25, 5762-6	24	104
272	Near-Infrared Electron Acceptors with Fluorinated Regioisomeric Backbone for Highly Efficient Polymer Solar Cells. <i>Advanced Materials</i> , 2018 , 30, e1803769	24	102
271	Molecular electron acceptors for efficient fullerene-free organic solar cells. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 3440-3458	3.6	101
270	Hierarchical architecture of WS ₂ nanosheets on graphene frameworks with enhanced electrochemical properties for lithium storage and hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 24128-24138	13	100
269	Nonfullerene Tandem Organic Solar Cells with High Open-Circuit Voltage of 1.97 V. <i>Advanced Materials</i> , 2016 , 28, 9729-9734	24	98
268	Au nanoparticles on ultrathin MoS ₂ sheets for plasmonic organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 14798-14806	13	98
267	Design of a versatile interconnecting layer for highly efficient series-connected polymer tandem solar cells. <i>Energy and Environmental Science</i> , 2015 , 8, 1712-1718	35.4	97

266	A simple perylene diimide derivative with a highly twisted geometry as an electron acceptor for efficient organic solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 10659-10665	13	97
265	Thiocyanate assisted performance enhancement of formamidinium based planar perovskite solar cells through a single one-step solution process. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 9430-9436	13	97
264	A Low-Temperature, Solution-Processable Organic Electron-Transporting Layer Based on Planar Coronene for High-performance Conventional Perovskite Solar Cells. <i>Advanced Materials</i> , 2016 , 28, 10786-10793	24	91
263	Highly Efficient Sn/Pb Binary Perovskite Solar Cell via Precursor Engineering: A Two-Step Fabrication Process. <i>Advanced Functional Materials</i> , 2019 , 29, 1807024	15.6	88
262	A non-fullerene acceptor with a fully fused backbone for efficient polymer solar cells with a high open-circuit voltage. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 14983-14987	13	87
261	A Near-Infrared Photoactive Morphology Modifier Leads to Significant Current Improvement and Energy Loss Mitigation for Ternary Organic Solar Cells. <i>Advanced Science</i> , 2018 , 5, 1800755	13.6	85
260	Graphene uniformly decorated with gold nanodots: in situ synthesis, enhanced dispersibility and applications. <i>Journal of Materials Chemistry</i> , 2011 , 21, 8096		85
259	The Second Spacer Cation Assisted Growth of a 2D Perovskite Film with Oriented Large Grain for Highly Efficient and Stable Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 9409-9413	16.4	84
258	Manipulating the Mixed-Perovskite Crystallization Pathway Unveiled by In Situ GIWAXS. <i>Advanced Materials</i> , 2019 , 31, e1901284	24	84
257	High-Performance Thickness Insensitive Perovskite Solar Cells with Enhanced Moisture Stability. <i>Advanced Energy Materials</i> , 2018 , 8, 1800438	21.8	83
256	High-Performance Semitransparent Organic Solar Cells with Excellent Infrared Reflection and See-Through Functions. <i>Advanced Materials</i> , 2020 , 32, e2001621	24	82
255	Preparation of superhydrophobic surfaces on cotton textiles. <i>Science and Technology of Advanced Materials</i> , 2008 , 9, 035008	7.1	82
254	Microcavity-enhanced light-trapping for highly efficient organic parallel tandem solar cells. <i>Advanced Materials</i> , 2014 , 26, 6778-84	24	81
253	One-Step Fabrication of CdS Nanorod Arrays via Solution Chemistry. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 13457-13462	3.8	80
252	Revealing the effects of molecular packing on the performances of polymer solar cells based on ADIDA type non-fullerene acceptors. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 12132-12141	13	80
251	Active-layer evolution and efficiency improvement of (CH ₃ NH ₃ 3Bi ₂ I ₉ -based solar cell on TiO ₂ -deposited ITO substrate. <i>Nano Research</i> , 2016 , 9, 2921-2930	10	78
250	Low temperature solution processed planar heterojunction perovskite solar cells with a CdSe nanocrystal as an electron transport/extraction layer. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 9087-9090	7.1	75
249	A Tetraperylene Diimides Based 3D Nonfullerene Acceptor for Efficient Organic Photovoltaics. <i>Advanced Science</i> , 2015 , 2, 1500014	13.6	73

248	Energy-level modulation of non-fullerene acceptors to achieve high-efficiency polymer solar cells at a diminished energy offset. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 9649-9654	13	72
247	Highly oriented two-dimensional formamidinium lead iodide perovskites with a small bandgap of 1.51 eV. <i>Materials Chemistry Frontiers</i> , 2018 , 2, 121-128	7.8	72
246	A solution-processable bipolar diketopyrrolopyrrole molecule used as both electron donor and acceptor for efficient organic solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 1902-1905	13	71
245	Advanced functional polymer materials. <i>Materials Chemistry Frontiers</i> , 2020 , 4, 1803-1915	7.8	70
244	A non-fullerene electron acceptor modified by thiophene-2-carbonitrile for solution-processed organic solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 3777-3783	13	67
243	Effects of heteroatom substitution in spiro-bifluorene hole transport materials. <i>Chemical Science</i> , 2016 , 7, 5007-5012	9.4	66
242	Preparation of Single-Crystalline Heterojunctions for Organic Electronics. <i>Advanced Materials</i> , 2017 , 29, 1606101	24	65
241	Construction of Transparent Cellulose-Based Nanocomposite Papers and Potential Application in Flexible Solar Cells. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 8040-8047	8.3	64
240	Solution-grown organic single-crystalline donor-acceptor heterojunctions for photovoltaics. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 956-60	16.4	61
239	An ester-functionalized diketopyrrolopyrrole molecule with appropriate energy levels for application in solution-processed organic solar cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 105-111	13	60
238	Star-shaped D-A small molecules based on diketopyrrolopyrrole and triphenylamine for efficient solution-processed organic solar cells. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 972-80	9.5	58
237	Visible-Light Ultrasensitive Solution-Prepared Layered Organic/Inorganic Hybrid Perovskite Field-Effect Transistor. <i>Advanced Optical Materials</i> , 2017 , 5, 1600539	8.1	58
236	Novel planar heterostructure perovskite solar cells with CdS nanorods array as electron transport layer. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 140, 396-404	6.4	57
235	Tuning terminal aromatics of electron acceptors to achieve high-efficiency organic solar cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 27632-27639	13	57
234	Solution-processed CuO as an efficient hole-extraction layer for inverted planar heterojunction perovskite solar cells. <i>Chinese Chemical Letters</i> , 2017 , 28, 13-18	8.1	56
233	Boosting the electron mobility of solution-grown organic single crystals via reducing the amount of polar solvent residues. <i>Materials Horizons</i> , 2016 , 3, 119-123	14.4	56
232	Simple Non-Fused Electron Acceptors Leading to Efficient Organic Photovoltaics. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 12964-12970	16.4	56
231	Ambient roll-to-roll fabrication of flexible solar cells based on small molecules. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 8007	7.1	55

230	Toward Highly Efficient Large-Area ITO-Free Organic Solar Cells with a Conductance-Gradient Transparent Electrode. <i>Advanced Materials</i> , 2015 , 27, 6983-9	24	54
229	Low-Temperature Solution Processed Ultraviolet Photodetector Based on an Ordered TiO ₂ Nanorod Array/Polymer Hybrid. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 13438-13445	3.8	54
228	Manipulating the D:A interfacial energetics and intermolecular packing for 19.2% efficiency organic photovoltaics. <i>Energy and Environmental Science</i> ,	35.4	54
227	Near-Infrared Electron Acceptors with Unfused Architecture for Efficient Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 16700-16706	9.5	53
226	Ambipolar charge transport of TIPS-pentacene single-crystals grown from non-polar solvents. <i>Materials Horizons</i> , 2015 , 2, 344-349	14.4	53
225	Biomolecule-assisted hydrothermal synthesis of In ₂ S ₃ porous films and enhanced photocatalytic properties. <i>Journal of Materials Chemistry</i> , 2011 , 21, 13327		53
224	Ultra-stable two-dimensional MoS ₂ solution for highly efficient organic solar cells. <i>RSC Advances</i> , 2014 , 4, 32744-32748	3.7	51
223	Near-Infrared Nonfullerene Acceptors Based on Benzobis(thiazole) Unit for Efficient Organic Solar Cells with Low Energy Loss. <i>Small Methods</i> , 2019 , 3, 1900531	12.8	50
222	Functionalizing single crystals: incorporation of nanoparticles inside gel-grown calcite crystals. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 4127-31	16.4	49
221	High-performance and eco-friendly semitransparent organic solar cells for greenhouse applications. <i>Joule</i> , 2021 , 5, 945-957	27.8	49
220	Enhanced Charge Transfer between Fullerene and Non-Fullerene Acceptors Enables Highly Efficient Ternary Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 42444-42452	9.5	49
219	Electron acceptors with varied linkages between perylene diimide and benzotrithiophene for efficient fullerene-free solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 9396-9401	13	48
218	ZnO/poly(9,9-dihexylfluorene) based inorganic/organic hybrid ultraviolet photodetector. <i>Applied Physics Letters</i> , 2008 , 93, 153309	3.4	48
217	Fluoroperylene diimide: a soluble and air-stable electron acceptor. <i>Chemical Communications</i> , 2003 , 1710, 8		48
216	Recent progress in organic solar cells (Part I material science). <i>Science China Chemistry</i> , 2022 , 65, 224-268	37.9	48
215	Interfacing Solution-Grown C and (3-Pyrrolinium)(CdCl ₂) Single Crystals for High-Mobility Transistor-Based Memory Devices. <i>Advanced Materials</i> , 2015 , 27, 4476-4480	24	45
214	MoO ₃ /Au composite interfacial layer for high efficiency and air-stable organic solar cells. <i>Organic Electronics</i> , 2013 , 14, 797-803	3.5	45
213	Donor-Acceptor Conjugated Macrocycles: Synthesis and Host-Guest Coassembly with Fullerene toward Photovoltaic Application. <i>ACS Nano</i> , 2017 , 11, 11701-11713	16.7	44

212	Easy incorporation of single-walled carbon nanotubes into two-dimensional MoS ₂ for high-performance hydrogen evolution. <i>Nanotechnology</i> , 2014 , 25, 465401	3.4	44
211	Semitransparent Organic Solar Cells with Vivid Colors. <i>ACS Energy Letters</i> , 2020 , 5, 3115-3123	20.1	43
210	Achieving efficient organic solar cells and broadband photodetectors via simple compositional tuning of ternary blends. <i>Nano Energy</i> , 2019 , 63, 103807	17.1	42
209	Low-bandgap mixed tin/lead iodide perovskite with large grains for high performance solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 13090-13095	13	42
208	Solution-grown aligned C60 single-crystals for field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 3617	7.1	42
207	High efficiency hybrid solar cells using post-deposition ligand exchange by monothiols. <i>Physical Chemistry Chemical Physics</i> , 2012 , 14, 12094-8	3.6	42
206	Improved photon-to-electron response of ternary blend organic solar cells with a low band gap polymer sensitizer and interfacial modification. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1702-1707	13	41
205	Single-crystalline lead halide perovskite arrays for solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 1214-1217	13	41
204	Roll-coating fabrication of flexible large area small molecule solar cells with power conversion efficiency exceeding 1%. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19809-19814	13	40
203	Incorporation of ester groups into low band-gap diketopyrrolopyrrole containing polymers for solar cell applications. <i>Journal of Materials Chemistry</i> , 2012 , 22, 15710		40
202	Non-fullerene Acceptors with a Thieno[3,4-c]pyrrole-4,6-dione (TPD) Core for Efficient Organic Solar Cells. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2019 , 37, 1005-1014	3.5	38
201	A diketopyrrolopyrrole molecule end-capped with a furan-2-carboxylate moiety: the planarity of molecular geometry and photovoltaic properties. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 6589	13	38
200	A Simple Electron Acceptor with Unfused Backbone for Polymer Solar Cells. <i>Wuli Huaxue Xuebao/Acta Physico-Chimica Sinica</i> , 2019 , 35, 394-400	3.8	38
199	Nanoparticles Incorporated inside Single-Crystals: Enhanced Fluorescent Properties. <i>Chemistry of Materials</i> , 2016 , 28, 7537-7543	9.6	38
198	Enhanced intramolecular charge transfer of unfused electron acceptors for efficient organic solar cells. <i>Materials Chemistry Frontiers</i> , 2019 , 3, 513-519	7.8	37
197	A Novel Wide-Bandgap Polymer with Deep Ionization Potential Enables Exceeding 16% Efficiency in Ternary Nonfullerene Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2020 , 30, 1910466	15.6	36
196	Preparation of Nano-Structured Polyaniline Composite Film via [Carbon Nanotubes Seeding] Approach and its Gas-Response Studies. <i>Macromolecular Materials and Engineering</i> , 2006 , 291, 75-82	3.9	36
195	Black Phosphorus Quantum Dots Induced High-Quality Perovskite Film for Efficient and Thermally Stable Planar Perovskite Solar Cells. <i>Solar Rrl</i> , 2019 , 3, 1900132	7.1	35

194	Controlled crystallization of CH ₃ NH ₃ PbI ₃ films for perovskite solar cells by various PbI ₂ (X) complexes. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 155, 331-340	6.4	35
193	Highly Efficient Guanidinium-Based Quasi 2D Perovskite Solar Cells via a Two-Step Post-Treatment Process. <i>Small Methods</i> , 2019 , 3, 1900375	12.8	35
192	A high-quality round-shaped monolayer MoS ₂ domain and its transformation. <i>Nanoscale</i> , 2016 , 8, 219-257.7		34
191	Graphene Nucleation Preferentially at Oxygen-Rich Cu Sites Rather Than on Pure Cu Surface. <i>Advanced Materials</i> , 2015 , 27, 6404-10	24	34
190	Modulate Organic-Metal Oxide Heterojunction via [1,6] Azafulleroid for Highly Efficient Organic Solar Cells. <i>Advanced Materials</i> , 2016 , 28, 7269-75	24	34
189	Solution-Processed 8-Hydroquinolatolithium as Effective Cathode Interlayer for High-Performance Polymer Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 9254-61	9.5	34
188	High efficient UV-A photodetectors based on monodispersed ligand-capped TiO ₂ nanocrystals and polyfluorene hybrids. <i>Polymer</i> , 2010 , 51, 3736-3743	3.9	33
187	Direct observation of microscopic photoinduced charge redistribution on TiO ₂ film sensitized by chloroaluminum phthalocyanine and perylene diimide. <i>Applied Physics Letters</i> , 2003 , 83, 1896-1898	3.4	33
186	Enhancement of intra- and inter-molecular π -conjugated effects for a non-fullerene acceptor to achieve high-efficiency organic solar cells with an extended photoresponse range and optimized morphology. <i>Materials Chemistry Frontiers</i> , 2018 , 2, 2006-2012	7.8	33
185	Perovskite/Organic Bulk-Heterojunction Integrated Ultrasensitive Broadband Photodetectors with High Near-Infrared External Quantum Efficiency over 70. <i>Small</i> , 2018 , 14, e1802349	11	33
184	Additive-Assisted Hot-Casting Free Fabrication of DionJacobson 2D Perovskite Solar Cell with Efficiency Beyond 16%. <i>Solar Rrl</i> , 2020 , 4, 2000087	7.1	32
183	Interfacial engineering enables high efficiency with a high open-circuit voltage above 1.23 V in 2D perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 18010-18017	13	32
182	Diketo-pyrrolo-pyrrole-Based Medium Band Gap Copolymers for Efficient Plastic Solar Cells: Morphology, Transport, and Composition-Dependent Photovoltaic Behavior. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 11282-11292	3.8	32
181	Electronic properties of polymorphic two-dimensional layered chromium disulphide. <i>Nanoscale</i> , 2019 , 11, 20123-20132	7.7	32
180	Solution-Grown Organic Single-Crystal Field-Effect Transistors with Ultrahigh Response to Visible-Blind and Deep UV Signals. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500136	6.4	31
179	Stable Quasi-2D Perovskite Solar Cells with Efficiency over 18% Enabled by HeatLight Co-Treatment. <i>Advanced Functional Materials</i> , 2020 , 30, 2004188	15.6	31
178	An aqueous solution-processed CuOX film as an anode buffer layer for efficient and stable organic solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 5130-5136	13	30
177	Boosting OrganicMetal Oxide Heterojunction via Conjugated Small Molecules for Efficient and Stable Nonfullerene Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2019 , 9, 1900887	21.8	30

176	Comparison of additive amount used in spin-coated and roll-coated organic solar cells. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 19542-19549	13	30
175	Synthesis and photovoltaic properties from inverted geometry cells and roll-to-roll coated large area cells from dithienopyrrole-based donor-acceptor polymers. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 1785-1793	13	30
174	Engineering the underlying surface to manipulate the growth of 2D perovskites for highly efficient solar cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 14027-14032	13	29
173	Two-dimensional inverted planar perovskite solar cells with efficiency over 15% via solvent and interface engineering. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 18980-18986	13	29
172	Improving polymer/nanocrystal hybrid solar cell performance via tuning ligand orientation at CdSe quantum dot surface. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 19154-60	9.5	29
171	Polymer Modification on the NiO Hole Transport Layer Boosts Open-Circuit Voltage to 1.19 V for Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 46340-46347	9.5	29
170	Unveiling structure-performance relationships from multi-scales in non-fullerene organic photovoltaics. <i>Nature Communications</i> , 2021 , 12, 4627	17.4	29
169	Desired open-circuit voltage increase enables efficiencies approaching 19% in symmetric-asymmetric molecule ternary organic photovoltaics. <i>Joule</i> , 2022 , 6, 662-675	27.8	29
168	Three-dimensional molecular donors combined with polymeric acceptors for high performance fullerene-free organic photovoltaic devices. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 22162-22169	13	28
167	Electrochemical Synthesis and Charge Transport Properties of CdS Nanocrystalline Thin Films with a Conifer-like Structure. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 11911-11917	3.8	27
166	High-Performance Organic Solar Cells from Non-Halogenated Solvents. <i>Advanced Functional Materials</i> , 2022 , 32, 2107827	15.6	27
165	Near infrared electron acceptors with a photoresponse beyond 1000 nm for highly efficient organic solar cells. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 18154-18161	13	27
164	Exploring oxygen in graphene chemical vapor deposition synthesis. <i>Nanoscale</i> , 2017 , 9, 3719-3735	7.7	26
163	An inverted planar solar cell with 13% efficiency and a sensitive visible light detector based on orientation regulated 2D perovskites. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 24633-24640	13	26
162	Black phosphorus nanoflakes as morphology modifier for efficient fullerene-free organic solar cells with high fill-factor and better morphological stability. <i>Nano Research</i> , 2019 , 12, 777-783	10	25
161	Conductive fullerene surfactants via anion doping as cathode interlayers for efficient organic and perovskite solar cells. <i>Organic Chemistry Frontiers</i> , 2018 , 5, 2845-2851	5.2	25
160	Alignment and patterning of organic single crystals for field-effect transistors. <i>Chinese Chemical Letters</i> , 2016 , 27, 1421-1428	8.1	25
159	Combining Fused-Ring and Unfused-Core Electron Acceptors Enables Efficient Ternary Organic Solar Cells with Enhanced Fill Factor and Broad Compositional Tolerance. <i>Solar Rrl</i> , 2019 , 3, 1900317	7.1	24

158	Elucidation of Zero-Dimensional to Two-Dimensional Growth Transition in MoS ₂ Chemical Vapor Deposition Synthesis. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1600687	4.6	24
157	Design and synthesis of dithieno[3,2-b:2'3'-d]pyrrole-based conjugated polymers for photovoltaic applications: consensus between low bandgap and low HOMO energy level. <i>Journal of Polymer Science Part A</i> , 2011 , 49, 1453-1461	2.5	24
156	Simple Near-Infrared Electron Acceptors for Efficient Photovoltaics and Sensitive Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 39515-39523	9.5	24
155	Organic Heterojunctions Formed by Interfacing Two Single Crystals from a Mixed Solution. <i>Journal of the American Chemical Society</i> , 2019 , 141, 10007-10015	16.4	23
154	Texture design of electrodes for efficiency enhancement of organic solar cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 2379	13	23
153	Poly(vinyl alcohol)-Encapsulated Hydrophilic Carbon Black Nanoparticles Free from Aggregation. <i>Macromolecular Rapid Communications</i> , 2003 , 24, 715-717	4.8	23
152	Stable Bimetallic Polyphthalocyanine Covalent Organic Frameworks as Superior Electrocatalysts. <i>Journal of the American Chemical Society</i> , 2021 , 143, 18052-18060	16.4	23
151	Molecular insights of exceptionally photostable electron acceptors for organic photovoltaics. <i>Nature Communications</i> , 2021 , 12, 3049	17.4	23
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