Chu-Chen Chueh

List of Publications by Citations

258 papers	20,850 citations	81 h-index	139 g-index
267 ext. papers	24,208 ext. citations	13 avg, IF	7.39 L-index

#	Paper	IF	Citations
258	Additive enhanced crystallization of solution-processed perovskite for highly efficient planar-heterojunction solar cells. *Advanced Materials*, **2014**, 26, 3748-54	24	1242
257	Nonfullerene Acceptor Molecules for Bulk Heterojunction Organic Solar Cells. *Chemical Reviews*, **2018**, 118, 3447-3507	68.1	1051
256	High-performance and environmentally stable planar heterojunction perovskite solar cells based on a solution-processed copper-doped nickel oxide hole-transporting layer. *Advanced Materials*, **2015**, 27, 695-701	24	655
255	Recent progress and perspective in solution-processed Interfacial materials for efficient and stable polymer and organometal perovskite solar cells. *Energy and Environmental Science*, **2015**, 8, 1160-1189	35.4	637
254	Efficiency enhancement of perovskite solar cells through fast electron extraction: the role of graphene quantum dots. *Journal of the American Chemical Society*, **2014**, 136, 3760-3	16.4	590
253	Fluoro-Substituted n-Type Conjugated Polymers for Additive-Free All-Polymer Bulk Heterojunction Solar Cells with High Power Conversion Efficiency of 6.71. *Advanced Materials*, **2015**, 27, 3310-7	24	400
252	Enhanced Efficiency and Stability of Inverted Perovskite Solar Cells Using Highly Crystalline SnO2 Nanocrystals as the Robust Electron-Transporting Layer. *Advanced Materials*, **2016**, 28, 6478-84	24	382
251	Integrated molecular, interfacial, and device engineering towards high-performance non-fullerene based organic solar cells. *Advanced Materials*, **2014**, 26, 5708-14	24	366
250	A Low-Temperature, Solution-Processable, Cu-Doped Nickel Oxide Hole-Transporting Layer via the Combustion Method for High-Performance Thin-Film Perovskite Solar Cells. *Advanced Materials*, **2015**, 27, 7874-80	24	348
249	Role of chloride in the morphological evolution of organo-lead halide perovskite thin films. *ACS Nano*, **2014**, 8, 10640-54	16.7	328
248	Improved charge transport and absorption coefficient in indacenodithieno[3,2-b]thiophene-based ladder-type polymer leading to highly efficient polymer solar cells. *Advanced Materials*, **2012**, 24, 6356-61	24	319
247	Enhanced Environmental Stability of Planar Heterojunction Perovskite Solar Cells Based on Blade-Coating. *Advanced Energy Materials*, **2015**, 5, 1401229	21.8	278
246	Interface Engineering for All-Inorganic CsPbI Br Perovskite Solar Cells with Efficiency over 14. *Advanced Materials*, **2018**, 30, e1802509	24	269
245	Binary-metal perovskites toward high-performance planar-heterojunction hybrid solar cells. *Advanced Materials*, **2014**, 26, 6454-60	24	259
244	High-Performance Fully Printable Perovskite Solar Cells via Blade-Coating Technique under the Ambient Condition. *Advanced Energy Materials*, **2015**, 5, 1500328	21.8	257
243	Roles of Fullerene-Based Interlayers in Enhancing the Performance of Organometal Perovskite Thin-Film Solar Cells. *Advanced Energy Materials*, **2015**, 5, 1402321	21.8	255
242	Stable Low-Bandgap Pb-Sn Binary Perovskites for Tandem Solar Cells. *Advanced Materials*, **2016**, 28, 8990-8997	24	254

241	Effects of a Molecular Monolayer Modification of NiO Nanocrystal Layer Surfaces on Perovskite Crystallization and Interface Contact toward Faster Hole Extraction and Higher Photovoltaic Performance. *Advanced Functional Materials*, **2016**, 26, 2950-2958	15.6	239
240	Mixed Cation FAxPEA1−xPbI3 with Enhanced Phase and Ambient Stability toward High-Performance Perovskite Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1601307	21.8	237
239	Defect Passivation of Organic–Inorganic Hybrid Perovskites by Diammonium Iodide toward High-Performance Photovoltaic Devices. *ACS Energy Letters*, **2016**, 1, 757-763	20.1	237
238	Rigidifying Nonplanar Perylene Diimides by Ring Fusion Toward Geometry-Tunable Acceptors for High-Performance Fullerene-Free Solar Cells. *Advanced Materials*, **2016**, 28, 951-8	24	222
237	Doping of fullerenes via anion-induced electron transfer and its implication for surfactant facilitated high performance polymer solar cells. *Advanced Materials*, **2013**, 25, 4425-30	24	220
236	Highly efficient all-inorganic perovskite solar cells with suppressed non-radiative recombination by a Lewis base. *Nature Communications*, **2020**, 11, 177	17.4	200
235	Suppressed charge recombination in inverted organic photovoltaics via enhanced charge extraction by using a conductive fullerene electron transport layer. *Advanced Materials*, **2014**, 26, 6262-7	24	198
234	Regulating Surface Termination for Efficient Inverted Perovskite Solar Cells with Greater Than 23% Efficiency. *Journal of the American Chemical Society*, **2020**, 142, 20134-20142	16.4	185
233	Harnessing MOF materials in photovoltaic devices: recent advances, challenges, and perspectives. *Journal of Materials Chemistry A*, **2019**, 7, 17079-17095	13	182
232	High-Performance Semitransparent Perovskite Solar Cells with 10% Power Conversion Efficiency and 25% Average Visible Transmittance Based on Transparent CuSCN as the Hole-Transporting Material. *Advanced Energy Materials*, **2015**, 5, 1500486	21.8	181
231	Current Challenges and Prospective Research for Upscaling Hybrid Perovskite Photovoltaics. *Journal of Physical Chemistry Letters*, **2016**, 7, 811-9	6.4	165
230	High performance inverted structure perovskite solar cells based on a PCBM:polystyrene blend electron transport layer. *Journal of Materials Chemistry A*, **2015**, 3, 9098-9102	13	160
229	Non-halogenated solvents for environmentally friendly processing of high-performance bulk-heterojunction polymer solar cells. *Energy and Environmental Science*, **2013**, 6, 3241	35.4	160
228	High-Performance Hole-Extraction Layer of Sol–Gel-Processed NiO Nanocrystals for Inverted Planar Perovskite Solar Cells. *Angewandte Chemie*, **2014**, 126, 12779-12783	3.6	158
227	Stabilized Wide Bandgap Perovskite Solar Cells by Tin Substitution. *Nano Letters*, **2016**, 16, 7739-7747	11.5	155
226	Inorganic CsPb1−xSnxIBr2 for Efficient Wide-Bandgap Perovskite Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1800525	21.8	154
225	Effects of formamidinium and bromide ion substitution in methylammonium lead triiodide toward high-performance perovskite solar cells. *Nano Energy*, **2016**, 22, 328-337	17.1	152
224	Realizing Efficient Lead-Free Formamidinium Tin Triiodide Perovskite Solar Cells via a Sequential Deposition Route. *Advanced Materials*, **2018**, 30, 1703800	24	151

223	Rational Design of Dipolar Chromophore as an Efficient Dopant-Free Hole-Transporting Material for Perovskite Solar Cells. *Journal of the American Chemical Society*, **2016**, 138, 11833-9	16.4	150
222	Polyfluorene Derivatives are High-Performance Organic Hole-Transporting Materials for Inorganic–Organic Hybrid Perovskite Solar Cells. *Advanced Functional Materials*, **2014**, 24, 7357-7365	15.6	150
221	10.4% Power Conversion Efficiency of ITO-Free Organic Photovoltaics Through Enhanced Light Trapping Configuration. *Advanced Energy Materials*, **2015**, 5, 1500406	21.8	150
220	Effective interfacial layer to enhance efficiency of polymer solar cells via solution-processed fullerene-surfactants. *Journal of Materials Chemistry*, **2012**, 22, 8574		149
219	Highly Efficient Porphyrin-Based OPV/Perovskite Hybrid Solar Cells with Extended Photoresponse and High Fill Factor. *Advanced Materials*, **2017**, 29, 1703980	24	148
218	High Performance Volatile Polymeric Memory Devices Based on Novel Triphenylamine-based Polyimides Containing Mono- or Dual-Mediated Phenoxy Linkages. *Macromolecules*, **2010**, 43, 1236-1244	5.5	145
217	Modulation of Defects and Interfaces through Alkylammonium Interlayer for Efficient Inverted Perovskite Solar Cells. *Joule*, **2020**, 4, 1248-1262	27.8	143
216	Synthesis and Memory Device Characteristics of New Sulfur Donor Containing Polyimides. *Macromolecules*, **2009**, 42, 4456-4463	5.5	142
215	A Non-fullerene Acceptor with Enhanced Intermolecular π–Core Interaction for High-Performance Organic Solar Cells. *Journal of the American Chemical Society*, **2020**, 142, 15246-15251	16.4	138
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211	High-performance hole-extraction layer of sol-gel-processed NiO nanocrystals for inverted planar perovskite solar cells. *Angewandte Chemie - International Edition*, **2014**, 53, 12571-5	16.4	121
210	Ascorbic acid as an effective antioxidant additive to enhance the efficiency and stability of Pb/Sn-based binary perovskite solar cells. *Nano Energy*, **2017**, 34, 392-398	17.1	120
209	Dopant-Free Organic Hole-Transporting Material for Efficient and Stable Inverted All-Inorganic and Hybrid Perovskite Solar Cells. *Advanced Materials*, **2020**, 32, e1908011	24	120
208	Highly Efficient Inverted Organic Solar Cells Through Material and Interfacial Engineering of Indacenodithieno[3,2-b]thiophene-Based Polymers and Devices. *Advanced Functional Materials*, **2014**, 24, 1465-1473	15.6	120
207	SrCl Derived Perovskite Facilitating a High Efficiency of 16% in Hole-Conductor-Free Fully Printable Mesoscopic Perovskite Solar Cells. *Advanced Materials*, **2017**, 29, 1606608	24	119
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196	Influence of Molecular Geometry of Perylene Diimide Dimers and Polymers on Bulk Heterojunction Morphology Toward High-Performance Nonfullerene Polymer Solar Cells. *Advanced Functional Materials*, **2015**, 25, 5326-5332	15.6	106
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177	Over 17% Efficiency Binary Organic Solar Cells with Photoresponses Reaching 1000 nm Enabled by Selenophene-Fused Nonfullerene Acceptors. *ACS Energy Letters*, **2021**, 6, 9-15	20.1	79
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164	Strong photocurrent enhancements in highly efficient flexible organic solar cells by adopting a microcavity configuration. *Advanced Materials*, **2014**, 26, 3349-54	24	61
163	Asymmetric Acceptors Enabling Organic Solar Cells to Achieve an over 17% Efficiency: Conformation Effects on Regulating Molecular Properties and Suppressing Nonradiative Energy Loss. *Advanced Energy Materials*, **2021**, 11, 2003177	21.8	61
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145	Navigating Organo-Lead Halide Perovskite Phase Space via Nucleation Kinetics toward a Deeper Understanding of Perovskite Phase Transformations and Structure-Property Relationships. *Small*, **2015**, 11, 3088-96	11	47
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124	New thiophene-phenylene-thiophene acceptor random conjugated copolymers for optoelectronic applications. *Journal of Polymer Science Part A*, **2010**, 48, 2351-2360	2.5	35
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