

Jeromy Rech

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

1,525
citations

304602

22
h-index

315616

38
g-index

40
all docs

40
docs citations

40
times ranked

1708
citing authors

#	ARTICLE	IF	CITATIONS
1	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. Nature Materials, 2021, 20, 525-532.	13.3	212
2	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. Joule, 2019, 3, 1328-1348.	11.7	143
3	Effect of Core Size on Performance of Fused-Ring Electron Acceptors. Chemistry of Materials, 2018, 30, 5390-5396.	3.2	102
4	A Fused Ring Electron Acceptor with Decacyclic Core Enables over 13.5% Efficiency for Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1802050.	10.2	97
5	The Importance of Entanglements in Optimizing the Mechanical and Electrical Performance of All-Polymer Solar Cells. Chemistry of Materials, 2019, 31, 5124-5132.	3.2	88
6	Highly Efficient, Stable, and Ductile Ternary Nonfullerene Organic Solar Cells from a Twoâ€“Donor Polymer Blend. Advanced Materials, 2019, 31, e1808279.	11.1	79
7	The Role of Demixing and Crystallization Kinetics on the Stability of Nonâ€“Fullerene Organic Solar Cells. Advanced Materials, 2020, 32, e2005348.	11.1	74
8	Fluorinated Thiophene Units Improve Photovoltaic Device Performance of Donorâ€“Acceptor Copolymers. Chemistry of Materials, 2017, 29, 5990-6002.	3.2	57
9	Revealing the Impact of F4â€“TCNQ as Additive on Morphology and Performance of Highâ€“Efficiency Nonfullerene Organic Solar Cells. Advanced Functional Materials, 2019, 29, 1806262.	7.8	55
10	Mantis shrimpâ€“inspired organic photodetector for simultaneous hyperspectral and polarimetric imaging. Science Advances, 2021, 7, .	4.7	51
11	Enhancing the performance of the electron acceptor ITIC-Th <i>via</i> tailoring its end groups. Materials Chemistry Frontiers, 2018, 2, 537-543.	3.2	46
12	A carbonâ€“oxygen-bridged hexacyclic ladder-type building block for low-bandgap nonfullerene acceptors. Materials Chemistry Frontiers, 2018, 2, 700-703.	3.2	41
13	Green-Solvent-Processed Conjugated Polymers for Organic Solar Cells: The Impact of Oligoethylene Glycol Side Chains. ACS Applied Polymer Materials, 2019, 1, 804-814.	2.0	39
14	Enhancing the performance of a fused-ring electron acceptor <i>via</i> extending benzene to naphthalene. Journal of Materials Chemistry C, 2018, 6, 66-71.	2.7	38
15	Measuring Temperature-Dependent Miscibility for Polymer Solar Cell Blends: An Easily Accessible Optical Method Reveals Complex Behavior. Chemistry of Materials, 2018, 30, 3943-3951.	3.2	38
16	Designing Simple Conjugated Polymers for Scalable and Efficient Organic Solar Cells. ChemSusChem, 2021, 14, 3561-3568.	3.6	36
17	Competition between Exceptionally Longâ€“Range Alkyl Sidechain Ordering and Backbone Ordering in Semiconducting Polymers and Its Impact on Electronic and Optoelectronic Properties. Advanced Functional Materials, 2019, 29, 1806977.	7.8	31
18	The impact of fluorination on both donor polymer and non-fullerene acceptor: The more fluorine, the merrier. Nano Research, 2019, 12, 2400-2405.	5.8	28

#	ARTICLE	IF	CITATIONS
19	Role of Secondary Thermal Relaxations in Conjugated Polymer Film Toughness. <i>Chemistry of Materials</i> , 2020, 32, 6540-6549.	3.2	27
20	Recombination between Photogenerated and Electrode-Induced Charges Dominates the Fill Factor Losses in Optimized Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 3473-3480.	2.1	26
21	Panchromatic All-Polymer Photodetector with Tunable Polarization Sensitivity. <i>Advanced Optical Materials</i> , 2019, 7, 1801346.	3.6	26
22	High-Performance Tandem Organic Solar Cells Using HSolar as the Interconnecting Layer. <i>Advanced Energy Materials</i> , 2020, 10, 2000823.	10.2	23
23	Semi-paracrystallinity in semi-conducting polymers. <i>Materials Horizons</i> , 2022, 9, 1196-1206.	6.4	18
24	Effect of Cyano Substitution on Conjugated Polymers for Bulk Heterojunction Solar Cells. <i>ACS Applied Polymer Materials</i> , 2019, 1, 3313-3322.	2.0	17
25	Ternary Blending Driven Molecular Reorientation of Non-Fullerene Acceptor IDIC with Backbone Order. <i>ACS Applied Energy Materials</i> , 2020, 3, 10814-10822.	2.5	15
26	Resolving the Molecular Origin of Mechanical Relaxations in Donor-Acceptor Polymer Semiconductors. <i>Advanced Functional Materials</i> , 2022, 32, 2105597.	7.8	15
27	Utilizing Difluorinated Thiophene Units To Improve the Performance of Polymer Solar Cells. <i>Macromolecules</i> , 2019, 52, 6523-6532.	2.2	14
28	Functionalization of Benzotriazole-Based Conjugated Polymers for Solar Cells: Heteroatom vs Substituents. <i>ACS Applied Polymer Materials</i> , 2021, 3, 30-41.	2.0	14
29	End-cap Group Engineering of a Small Molecule Non-Fullerene Acceptor: The Influence of Benzothiophene Dioxide. <i>ACS Applied Energy Materials</i> , 2018, 1, 7146-7152.	2.5	12
30	The crucial role of end group planarity for fused-ring electron acceptors in organic solar cells. <i>Materials Chemistry Frontiers</i> , 2019, 3, 1642-1652.	3.2	12
31	Pairing 1D/2D-conjugation donors/acceptors towards high-performance organic solar cells. <i>Materials Chemistry Frontiers</i> , 2019, 3, 276-283.	3.2	9
32	Effects of Fluorination Position on Fused-Ring Electron Acceptors. <i>Small Structures</i> , 2020, 1, 2000006.	6.9	8
33	Effects of linking units on fused-ring electron acceptor dimers. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13735-13741.	5.2	8
34	Organic Solar Cells with Large Insensitivity to Donor Polymer Molar Mass across All Acceptor Classes. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5300-5308.	2.0	7
35	Ultra-High Alignment of Polymer Semiconductor Blends Enabling Photodetectors with Exceptional Polarization Sensitivity. <i>Advanced Functional Materials</i> , 2022, 32, 2105820.	7.8	7
36	Aggregation Controlled Charge Generation in Fullerene Based Bulk Heterojunction Polymer Solar Cells: Effect of Additive. <i>Polymers</i> , 2021, 13, 115.	2.0	6

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37	Effects of Terminal Groups in Third Components on Performance of Organic Solar Cells. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2019, 35, 275-283.	2.2	3
38	Effect of osmotic ballast properties on the performance of a concentration gradient battery. Water Research, 2022, 212, 118076.	5.3	3
39	Organic Solar Cells: High-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
40	Competition between exceptionally long-range alkyl sidechain ordering and backbone ordering in semiconducting polymers and its impact on electronic and optoelectronic properties. Advanced Functional Materials, 2018, 29, .	7.8	0