

Bowei Xu

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

4,312
citations

172457

29
h-index

189892

50
g-index

50
all docs

50
docs citations

50
times ranked

4269
citing authors

#	ARTICLE	IF	CITATIONS
1	Over 16% efficiency organic photovoltaic cells enabled by a chlorinated acceptor with increased open-circuit voltages. <i>Nature Communications</i> , 2019, 10, 2515.	12.8	1,431
2	Fine-Tuned Photoactive and Interconnection Layers for Achieving over 13% Efficiency in a Fullerene-Free Tandem Organic Solar Cell. <i>Journal of the American Chemical Society</i> , 2017, 139, 7302-7309.	13.7	427
3	A Printable Organic Cathode Interlayer Enables over 13% Efficiency for 1-cm ² Organic Solar Cells. <i>Joule</i> , 2019, 3, 227-239.	24.0	193
4	Molecular design of a wide-band-gap conjugated polymer for efficient fullerene-free polymer solar cells. <i>Energy and Environmental Science</i> , 2017, 10, 546-551.	30.8	180
5	Critical Role of Molecular Electrostatic Potential on Charge Generation in Organic Solar Cells. <i>Chinese Journal of Chemistry</i> , 2018, 36, 491-494.	4.9	163
6	15.3% efficiency all-small-molecule organic solar cells enabled by symmetric phenyl substitution. <i>Science China Materials</i> , 2020, 63, 1142-1150.	6.3	140
7	Tailoring and Modifying an Organic Electron Acceptor toward the Cathode Interlayer for Highly Efficient Organic Solar Cells. <i>Advanced Materials</i> , 2020, 32, e1906557.	21.0	109
8	Highly Selective and Sensitive Detection of Cyanide by a Reaction-Based Conjugated Polymer Chemosensor. <i>Macromolecules</i> , 2011, 44, 4241-4248.	4.8	99
9	Solution-processable Conjugated Polymers as Anode Interfacial Layer Materials for Organic Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800022.	19.5	95
10	Fullerene-free polymer solar cell based on a polythiophene derivative with an unprecedented energy loss of less than 0.5 eV. <i>Journal of Materials Chemistry A</i> , 2016, 4, 18043-18049.	10.3	88
11	A Bifunctional Interlayer Material for Modifying Both the Anode and Cathode in Highly Efficient Polymer Solar Cells. <i>Advanced Materials</i> , 2016, 28, 434-439.	21.0	85
12	n-doped inorganic molecular clusters as a new type of hole transport material for efficient organic solar cells. <i>Joule</i> , 2021, 5, 646-658.	24.0	76
13	Solution-dispersed porous hyperbranched conjugated polymer nanoparticles for fluorescent sensing of TNT with enhanced sensitivity. <i>Polymer Chemistry</i> , 2014, 5, 4521.	3.9	74
14	Reduced Nonradiative Energy Loss Caused by Aggregation of Nonfullerene Acceptor in Organic Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1901823.	19.5	72
15	A ternary organic solar cell with 300 nm thick active layer shows over 14% efficiency. <i>Science China Chemistry</i> , 2020, 63, 21-27.	8.2	72
16	Printable MoO _x Anode Interlayers for Organic Solar Cells. <i>Advanced Materials</i> , 2018, 30, e1801718.	21.0	71
17	A Novel pH Neutral Self-Doped Polymer for Anode Interfacial Layer in Efficient Polymer Solar Cells. <i>Macromolecules</i> , 2016, 49, 8126-8133.	4.8	69
18	Fluidic Manipulating of Printable Zinc Oxide for Flexible Organic Solar Cells. <i>Advanced Materials</i> , 2022, 34, e2106453.	21.0	62

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19	Enhanced efficiency of polymer photovoltaic cells via the incorporation of a water-soluble naphthalene diimide derivative as a cathode interlayer. <i>Journal of Materials Chemistry C</i> , 2015, 3, 9565-9571.	5.5	60
20	A New PEDOT Derivative for Efficient Organic Solar Cell with a Fill Factor of 0.80. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	52
21	Tuning the Energetic Landscape of Ruddlesden-Popper Perovskite Films for Efficient Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 39-46.	17.4	47
22	The Critical Role of Anode Work Function in Non-Fullerene Organic Solar Cells Unveiled by Counterion-Size-Controlled Self-Doping Conjugated Polymers. <i>Chemistry of Materials</i> , 2018, 30, 1078-1084.	6.7	44
23	Significant influence of doping effect on photovoltaic performance of efficient fullerene-free polymer solar cells. <i>Journal of Energy Chemistry</i> , 2020, 43, 40-46.	12.9	43
24	Highly Stable Organic Solar Cells Based on an Ultraviolet-Resistant Cathode Interfacial Layer. <i>CCS Chemistry</i> , 2022, 4, 938-948.	7.8	42
25	High-Efficiency ITO-Free Organic Photovoltaics with Superior Flexibility and Upscalability. <i>Advanced Materials</i> , 2022, 34, e2200044.	21.0	41
26	Over 100-nm-Thick MoO ₃ Films with Superior Hole Collection and Transport Properties for Organic Solar Cells. <i>Advanced Energy Materials</i> , 2018, 8, 1800698.	19.5	38
27	Influence of Covalent and Noncovalent Backbone Rigidification Strategies on the Aggregation Structures of a Wide-Band-Gap Polymer for Photovoltaic Cells. <i>Chemistry of Materials</i> , 2020, 32, 1993-2003.	6.7	36
28	Efficient fullerene-based and fullerene-free polymer solar cells using two wide band gap thiophene-thiazolothiazole-based photovoltaic materials. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9511-9518.	10.3	34
29	Solution-Processed Silver Nanowire as Flexible Transparent Electrodes in Organic Solar Cells. <i>Chinese Journal of Chemistry</i> , 2021, 39, 2315-2329.	4.9	33
30	The effect of aggregation behavior on photovoltaic performances in benzodithiophene-thiazolothiazole-based wide band-gap conjugated polymers with side chain position changes. <i>Polymer Chemistry</i> , 2020, 11, 1629-1636.	3.9	30
31	Porous films based on a conjugated polymer gelator for fluorescent detection of explosive vapors. <i>Polymer Chemistry</i> , 2013, 4, 5056.	3.9	29
32	Efficient Fullerene-Free Polymer Solar Cells Based on Alkylthio Substituted Conjugated Polymers. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4825-4833.	3.1	28
33	p-Doped Conducting Polyelectrolyte as an Anode Interlayer Enables High Efficiency for 1 cm ² Printed Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20205-20213.	8.0	28
34	Solution-processible hyperbranched conjugated polymer nanoparticles with tunable particle sizes by Suzuki polymerization in miniemulsion. <i>RSC Advances</i> , 2013, 3, 8645.	3.6	23
35	Twisted terrylene dyes: synthesis and application in organic solar cells. <i>Organic Chemistry Frontiers</i> , 2017, 4, 811-816.	4.5	21
36	Significant Effect of Fluorination on Simultaneously Improving Work Function and Transparency of Anode Interlayer for Organic Solar Cells. <i>Advanced Energy Materials</i> , 2019, 9, 1803826.	19.5	21

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37	An inorganic molecule-induced electron transfer complex for highly efficient organic solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 5580-5586.	10.3	21
38	Optimizing polymer aggregation and blend morphology for boosting the photovoltaic performance of polymer solar cells via a random terpolymerization strategy. <i>Journal of Energy Chemistry</i> , 2021, 59, 30-37.	12.9	20
39	Conjugated Polymers Containing Sulfonic Acid Fluorene Unit for Achieving Multiple Interfacial Modifications in Fullerene-free Organic Solar Cells. <i>Journal of Physical Chemistry C</i> , 2018, 122, 19328-19337.	3.1	14
40	Inorganic Molecular Clusters with Facile Preparation and Neutral pH for Efficient Hole Extraction in Organic Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 39462-39470.	8.0	14
41	Universal Hole Transporting Material <i>via</i> Mutual Doping for Conventional, Inverted, and Blade-Coated Large-Area Organic Solar Cells. <i>Chemistry of Materials</i> , 2022, 34, 6312-6322.	6.7	12
42	Effectively Improving Extinction Coefficient of Benzodithiophene and Benzodithiophenedione-based Photovoltaic Polymer by Grafting Alkylthio Functional Groups. <i>Chemistry - an Asian Journal</i> , 2016, 11, 2650-2655.	3.3	11
43	Increased conjugated backbone twisting to improve carbonylated-functionalized polymer photovoltaic performance. <i>Organic Chemistry Frontiers</i> , 2020, 7, 261-266.	4.5	10
44	Enhanced photovoltaic effect from naphtho[2,3- <i>c</i>]thiophene-4,9-dione-based polymers through alkyl side chain induced backbone distortion. <i>Journal of Materials Chemistry A</i> , 2020, 8, 14706-14712.	10.3	10
45	Meta-linked and para-linked water-soluble poly(arylene ethynylene)s with amino acid side chains: Effects of different linkage on Hg ²⁺ ion sensing properties in aqueous media. <i>Journal of Polymer Science Part A</i> , 2012, 50, 1521-1529.	2.3	9
46	Effect of linear side-chain length on the photovoltaic performance of benzodithiophene- <i>alt</i> -dicarboxylic ester terthiophene polymers. <i>New Journal of Chemistry</i> , 2019, 43, 12950-12956.	2.8	9
47	Facile solution-processed molybdenum oxide as hole transporting material for efficient organic solar cell. <i>Journal of Energy Chemistry</i> , 2022, 69, 108-114.	12.9	8
48	A Carbonylated Terthiophene-based Twisted Polymer for Efficient Ternary Polymer Solar Cells. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1900246.	3.9	7
49	Reduced Nonradiative Recombination Energy Loss Enabled Efficient Polymer Solar Cells via Tuning Alkyl Chain Positions on Pendent Benzene Units of Polymers. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 24184-24191.	8.0	7
50	Impact of the Hole Transport Layer on the Charge Extraction of Ruddlesden-Popper Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 29505-29512.	8.0	4