Mingtao Zhang

List of Publications by Year
in descending order

74 papers	4,839 citations	201575 27 h-index	91828 69 g-index
75 all docs	75 docs citations	75 times ranked	5801 citing authors

#	Article	IF	Citations
1	A Series of Simple Oligomer-like Small Molecules Based on Oligothiophenes for Solution-Processed Solar Cells with High Efficiency. Journal of the American Chemical Society, 2015, 137, 3886-3893.	6.6	788
2	Small-molecule solar cells with efficiency over 9%. Nature Photonics, 2015, 9, 35-41.	15.6	769
3	Spin control in reduced-dimensional chiral perovskites. Nature Photonics, 2018, 12, 528-533.	15.6	371
4	Acceptorâ€“donorâ€“acceptor type molecules for high performance organic photovoltaics â€“ chemistry and mechanism. Chemical Society Reviews, 2020, 49, 2828-2842.	18.7	326
5	Solution Processable Rhodanineâ€Based Small Molecule Organic Photovoltaic Cells with a Power Conversion Efficiency of 6.1%. Advanced Energy Materials, 2012, 2, 74-77.	10.2	303
6	Controlling the Effective Surface Area and Pore Size Distribution of sp² Carbon Materials and Their Impact on the Capacitance Performance of These Materials. Journal of the American Chemical Society, 2013, 135, 5921-5929.	6.6	291
7	A 2D covalent organic framework as a high-performance cathode material for lithium-ion batteries. Nano Energy, 2020, 70, 104498.	8.2	144
8	An A-D-A Type Small-Molecule Electron Acceptor with End-Extended Conjugation for High Performance Organic Solar Cells. Chemistry of Materials, 2017, 29, 7908-7917.	3.2	139
9	Efficient small molecule bulk heterojunction solar cells with high fill factors via introduction of Ï€-stacking moieties as end group. Journal of Materials Chemistry A, 2013, 1, 1801-1809.	5.2	96
10	Achieving an Efficient and Stable Morphology in Organic Solar Cells Via Fine-Tuning the Side Chains of Small-Molecule Acceptors. Chemistry of Materials, 2020, 32, 2593-2604.	3.2	91
11	A facile gaseous sulfur treatment strategy for Li-rich and Ni-rich cathode materials with high cycling and rate performance. Nano Energy, 2019, 63, 103887.	8.2	82
12	Lowing the energy loss of organic solar cells by molecular packing engineering via multiple molecular conjugation extension. Science China Chemistry, 2022, 65, 1362-1373.	4.2	79
13	Pyreneâ€Containing Twistarene: Twelve Benzene Rings Fused in a Row. Angewandte Chemie - International Edition, 2018, 57, 13555-13559.	7.2	76
14	Achieving Both Enhanced Voltage and Current through Fineâ€Tuning Molecular Backbone and Morphology Control in Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901024.	10.2	73
15	Small Molecules Based on Alkyl/Alkylthio-thieno[3,2-<i>b</i>]thiophene-Substituted Benzo[1,2-<i>b</i>:4,5-bâ€²]dithiophene for Solution-Processed Solar Cells with High Performance. Chemistry of Materials, 2015, 27, 8414-8423.	3.2	71
16	Impact of dye end groups on acceptorâ€“donorâ€“acceptor type molecules for solution-processed photovoltaic cells. Journal of Materials Chemistry, 2012, 22, 9173.	6.7	69
17	Solid-State Spectroscopic Investigation of Molecular Interactions between Clofazimine and Hypromellose Phthalate in Amorphous Solid Dispersions. Molecular Pharmaceutics, 2016, 13, 3964-3975.	2.3	69
18	Investigation of Quinquethiophene Derivatives with Different End Groups for High Open Circuit Voltage Solar Cells. Advanced Energy Materials, 2013, 3, 639-646.	10.2	65

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19	Theoretical Prediction of Chiral 3D Hybrid Organicâ€“Inorganic Perovskites. Advanced Materials, 2019, 31, e1807628.	11.1	64
20	Investigating the Interaction Pattern and Structural Elements of a Drugâ€“Polymer Complex at the Molecular Level. Molecular Pharmaceutics, 2015, 12, 2459-2468.	2.3	54
21	Enhanced cycling stability of boron-doped lithium-rich layered oxide cathode materials by suppressing transition metal migration. Journal of Materials Chemistry A, 2019, 7, 3375-3383.	5.2	49
22	The mechanism for the hydrogenation of ketones catalyzed by KnÃ¶lker's iron-catalyst. Organic and Biomolecular Chemistry, 2013, 11, 5264.	1.5	46
23	Impact of the Electronâ€Transport Layer on the Performance of Solutionâ€Processed Smallâ€Molecule Organic Solar Cells. ChemSusChem, 2014, 7, 2358-2364.	3.6	40
24	A mixed hole transport material employing a highly planar conjugated molecule for efficient and stable perovskite solar cells. Journal of Materials Chemistry A, 2020, 8, 5163-5170.	5.2	40
25	Persistent Self-Association of Solute Molecules in Solution. Journal of Physical Chemistry B, 2017, 121, 10118-10124.	1.2	38
26	Highly efficient atomically dispersed Coâ€“N active sites in porous carbon for high-performance capacitive desalination of brackish water. Journal of Materials Chemistry A, 2021, 9, 3066-3076.	5.2	33
27	Low operating temperature and highly selective NH3 chemiresistive gas sensors based on Ag3PO4 semiconductor. Applied Surface Science, 2019, 479, 1141-1147.	3.1	32
28	Higher-Order Self-Assembly of Benzoic Acid in Solution. Crystal Growth and Design, 2017, 17, 5049-5053.	1.4	27
29	Pyreneâ€Containing Twistarene: Twelve Benzene Rings Fused in a Row. Angewandte Chemie, 2018, 130, 13743-13747.	1.6	27
30	Agent-assisted VSSe ternary alloy single crystals as an efficient stable electrocatalyst for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 15714-15721.	5.2	26
31	Sustainable development of ultrathin porous carbon nanosheets with highly accessible defects from biomass waste for high-performance capacitive desalination. Green Chemistry, 2021, 23, 8554-8565.	4.6	25
32	Tautomeric Polymorphism of 4-Hydroxynicotinic Acid. Crystal Growth and Design, 2016, 16, 2573-2580.	1.4	23
33	Collision-induced dissociation (CID) of guanine radical cation in the gas phase: an experimental and computational study. Physical Chemistry Chemical Physics, 2010, 12, 4667.	1.3	21
34	Nucleation Control-Triggering Cocrystal Polymorphism of Charge-Transfer Complexes Differing in Physical and Electronic Properties. ACS Applied Materials & Interfaces, 2020, 12, 19718-19726.	4.0	21
35	Using computational methods to explore improvements to KnÃ¶lker's iron catalyst. Organic and Biomolecular Chemistry, 2014, 12, 4361-4371.	1.5	19
36	Impact of fluorinated end groups on the properties of acceptorâ€“donorâ€“acceptor type oligothiophenes for solution-processed photovoltaic cells. Journal of Materials Chemistry C, 2014, 2, 1337-1345.	2.7	19

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37	Supramolecular Design of Donorâ€“Acceptor Complexes via Heteroatom Replacement toward Structure and Electrical Transporting Property Tailoring. ACS Applied Materials & Interfaces, 2019, 11, 1109-1116.	4.0	19
38	Molecular Origin of Donor- and Acceptor-Rich Domain Formation in Bulk-Heterojunction Solar Cells with an Enhanced Charge Transport Efficiency. Journal of Physical Chemistry C, 2017, 121, 5864-5870.	1.5	18
39	^{sp2}CHâ‹¯Cl hydrogen bond in the conformational polymorphism of 4-chloro-phenylanthranilic acid. CrystEngComm, 2017, 19, 4345-4354.	1.3	18
40	What are the practical limits for the specific surface area and capacitance of bulk sp2 carbon materials?. Science China Chemistry, 2016, 59, 225-230.	4.2	17
41	Rare Earth Oxide Anchored Platinum Catalytic Site Coated Zeolitic Imidazolate Frameworks toward Enhancing Selective Hydrogenation. ACS Applied Materials & Interfaces, 2020, 12, 7198-7205.	4.0	16
42	â€œDopingâ€•pentacene with sp²-phosphorus atoms: towards high performance ambipolar semiconductors. Physical Chemistry Chemical Physics, 2016, 18, 3173-3178.	1.3	15
43	Strong Hydrogen Bond Leads to a Fifth Crystalline Form and Polymorphism of Clonixin. ChemistrySelect, 2017, 2, 4942-4950.	0.7	15
44	High Chemoselectivity of an Advanced Iron Catalyst for the Hydrogenation of Aldehydes with Isolated Câ•C Bond: A Computational Study. Journal of Organic Chemistry, 2014, 79, 9355-9364.	1.7	14
45	Differentiation of Ptâˆ’Fe and Ptâˆ’Ni₃ Surface Catalytic Mechanisms towards Contrasting Products in Chemoselective Hydrogenation of Î±,Î²â€Unsaturated Aldehydes. ChemCatChem, 2021, 13, 704-711.	1.8	14
46	Insight from the synergistic effect of dopant and defect interplay in carbons for high-performance capacitive deionization. Separation and Purification Technology, 2022, 281, 119807.	3.9	14
47	Distinct pathways of solid-to-solid phase transitions induced by defects: the case of <scp>DL</scp>-methionine. IUCrJ, 2021, 8, 584-594.	1.0	13
48	An acceptorâ€“donorâ€“acceptor type non-fullerene acceptor with an asymmetric backbone for high performance organic solar cells. Journal of Materials Chemistry C, 2020, 8, 6293-6298.	2.7	12
49	Eutectics and Salt of Dapsone With Hydroxybenzoic Acids: Binary Phase Diagrams, Characterization and Evaluation. Journal of Pharmaceutical Sciences, 2020, 109, 2224-2236.	1.6	12
50	The effect of substituents on the hydrogenation of an aldehyde catalyzed by KnÃ¶lker's catalyst. Journal of Organometallic Chemistry, 2014, 749, 69-74.	0.8	10
51	Intermolecular interactions in organic crystals: gaining insight from electronic structure analysis by density functional theory. CrystEngComm, 2014, 16, 7162-7171.	1.3	10
52	Solution growth and thermal treatment of crystals lead to two new forms of 2-((2,6-dimethylphenyl)amino)benzoic acid. RSC Advances, 2018, 8, 15459-15470.	1.7	10
53	A high-performance energy storage system from sphagnum uptake waste LIBs with negative greenhouse-gas emission. Nano Energy, 2020, 67, 104216.	8.2	10
54	Synthon Polymorphism and Ï€â€“Ï€ Stacking in<i>N</i>-Phenyl-2-hydroxynicotinanilides. Crystal Growth and Design, 2021, 21, 6155-6165.	1.4	9

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55	Oligothiophene-based small molecules with 3,3â€²-difluoro-2,2â€²-bithiophene central unit for solution-processed organic solar cells. Organic Electronics, 2016, 38, 172-179.	1.4	8
56	Substituent Electronegativity and Isostructurality in the Polymorphism of Clonixin Analogues. Crystal Growth and Design, 2018, 18, 7006-7014.	1.4	8
57	Isothianaphtheneâ€•Based Conjugated Polymers for Organic Photovoltaic Cells. Macromolecular Chemistry and Physics, 2012, 213, 1596-1603.	1.1	7
58	A Direct Method to Access Substituted Pyreno[4,5â€•c:9,10â€•câ€²] difuran and its Analogues. Asian Journal of Organic Chemistry, 2018, 7, 2213-2217.	1.3	6
59	Effect of Substituent Size and Isomerization on the Polymorphism of 2-(Naphthalenylamino)-benzoic Acids. Crystal Growth and Design, 2019, 19, 3694-3703.	1.4	6
60	An investigation of the polymorphism of a potent nonsteroidal anti-inflammatory drug flunixin. CrystEngComm, 2020, 22, 448-457.	1.3	6
61	Preparation and electrochemistry properties of trifunctional 1,9-dithiophenalenylium salt and its neutral radical with benzene spacer. Tetrahedron, 2013, 69, 6890-6896.	1.0	5
62	Bromination of Isothianaphthene Derivatives towards the Application in Organic Electronics. Chinese Journal of Chemistry, 2013, 31, 1391-1396.	2.6	5
63	Crystal packing and crystallization tendency from the melt of 2-((2-ethylphenyl)amino)nicotinic acid. Zeitschrift Fur Kristallographie - Crystalline Materials, 2018, 233, 9-16.	0.4	5
64	Steric Effect Determines the Formation of Lactamâ€"Lactam Dimers or Amide Câ•OÂ·Â·Â·NH (Lactam) Chain Motifs in <i>N</i>-Phenyl-2-hydroxynicotinanilides. Crystal Growth and Design, 2020, 20, 4346-4357.	1.4	5
65	A Benziodoxole-Based Hypervalent Iodine(III) Compound Functioning as a Peptide Coupling Reagent. Frontiers in Chemistry, 2020, 8, 183.	1.8	5
66	Polymorphism and cocrystal salt formation of 2-((2,6-dichlorophenyl)amino)benzoic acid, harvest of a second form of 2-((2,6-dimethylphenyl)amino)benzoic acid, and isomorphism between the two systems. CrystEngComm, 2022, 24, 681-690.	1.3	5
67	Understanding Nucleation Mechanism of Mefenamic Acid: An Examination of Relation between Pre-assembly Structure in Solution and Nucleation Kinetics. Crystal Growth and Design, 2021, 21, 6473-6484.	1.4	4
68	Structural Isomerization of 2-Anilinonicotinic Acid Leads to a New Synthon in 6-Anilinonicotinic Acids. Crystal Growth and Design, 2018, 18, 4849-4859.	1.4	3
69	Locality and strength of intermolecular interactions in organic crystals: using conceptual density functional theory (CDFT) to characterize a highly polymorphic system. Theoretical Chemistry Accounts, 2019, 138, 1.	0.5	3
70	A new solvate of clonixin and a comparison of the two clonixin solvates. RSC Advances, 2021, 11, 24836-24842.	1.7	3
71	Density functional investigations on the catalytic cycle of the hydrogenation of aldehydes catalyzed by an enhanced ruthenium complex: an alcohol-bridged autocatalytic process. RSC Advances, 2015, 5, 2827-2836.	1.7	1
72	Zwitterion formation and subsequent carboxylateâ€"pyridinium NH synthon generation through isomerization of 2-anilinonicotinic acid. CrystEngComm, 2018, 20, 6126-6132.	1.3	1

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73	Reply to the â€˜Comment on â€œPolymorphism of levofloxacin: structure, properties and phase transformationâ€â€™ by Tejender S. Thakur, <i>CrystEngComm</i>, 2020, 22, DOI: 10.1039/C9CE01400D. CrystEngComm, 2020, 22, 1889-1891.	1.3	1
74	Theoretical exploration of stereochemical nonrigidity for R f Co(PF3) x (CO)4â^'x (R f =CF3, C2F5, C3F7,) Tj ETQq0 0 0 rgBT /Overlock 10	1.3	0