

# Mingtao Zhang

## List of Publications by Year in descending order

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74  
papers

4,839  
citations

201674

27  
h-index

91884

69  
g-index

75  
all docs

75  
docs citations

75  
times ranked

5801  
citing authors

#	ARTICLE	IF	CITATIONS
1	Insight from the synergistic effect of dopant and defect interplay in carbons for high-performance capacitive deionization. Separation and Purification Technology, 2022, 281, 119807.	7.9	14
2	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.	2.6	5
3	Lowering the energy loss of organic solar cells by molecular packing engineering via multiple molecular conjugation extension. Science China Chemistry, 2022, 65, 1362-1373.	8.2	79
4	Differentiation of Pt <sup>II</sup> /Fe and Pt <sup>II</sup> /Ni <sub>3</sub> Surface Catalytic Mechanisms towards Contrasting Products in Chemoselective Hydrogenation of $\alpha,\beta$ -Unsaturated Aldehydes. ChemCatChem, 2021, 13, 704-711.	3.7	14
5	Highly efficient atomically dispersed Co <sup>II</sup> /N active sites in porous carbon for high-performance capacitive desalination of brackish water. Journal of Materials Chemistry A, 2021, 9, 3066-3076.	10.3	33
6	A new solvate of clonixin and a comparison of the two clonixin solvates. RSC Advances, 2021, 11, 24836-24842.	3.6	3
7	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.	9.0	25
8	Distinct pathways of solid-to-solid phase transitions induced by defects: the case of DL-methionine. IUCr, 2021, 8, 584-594.	2.2	13
9	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.	3.0	4
10	Synthon Polymorphism and $\pi$ - $\pi$ Stacking in <i>N</i> -Phenyl-2-hydroxynicotinilides. Crystal Growth and Design, 2021, 21, 6155-6165.	3.0	9
11	A high-performance energy storage system from sphagnum uptake waste LIBs with negative greenhouse-gas emission. Nano Energy, 2020, 67, 104216.	16.0	10
12	An investigation of the polymorphism of a potent nonsteroidal anti-inflammatory drug flunixin. CrystEngComm, 2020, 22, 448-457.	2.6	6
13	Steric Effect Determines the Formation of Lactam Lactam Dimers or Amide-O <sup>-</sup> -NH (Lactam) Chain Motifs in <i>N</i> -Phenyl-2-hydroxynicotinilides. Crystal Growth and Design, 2020, 20, 4346-4357.	3.0	5
14	A Benzyloxole-Based Hypervalent Iodine(III) Compound Functioning as a Peptide Coupling Reagent. Frontiers in Chemistry, 2020, 8, 183.	3.6	5
15	Acceptor-donor-acceptor type molecules for high performance organic photovoltaics chemistry and mechanism. Chemical Society Reviews, 2020, 49, 2828-2842.	38.1	326
16	An acceptor-donor-acceptor type non-fullerene acceptor with an asymmetric backbone for high performance organic solar cells. Journal of Materials Chemistry C, 2020, 8, 6293-6298.	5.5	12
17	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.	6.7	91
18	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.	10.3	40

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19	Reply to the "Comment on "Polymorphism of levofloxacin: structure, properties and phase transformation" by Tejender S. Thakur, <i>CrystEngComm</i>, 2020, <b>22</b>, DOI: 10.1039/C9CE01400D. <i>CrystEngComm</i>, 2020, 22, 1889-1891.	2.6	1
20	Rare Earth Oxide Anchored Platinum Catalytic Site Coated Zeolitic Imidazolate Frameworks toward Enhancing Selective Hydrogenation. <i>ACS Applied Materials & Interfaces</i>, 2020, 12, 7198-7205.	8.0	16
21	A 2D covalent organic framework as a high-performance cathode material for lithium-ion batteries. <i>Nano Energy</i>, 2020, 70, 104498.	16.0	144
22	Nucleation Control-Triggering Cocrystal Polymorphism of Charge-Transfer Complexes Differing in Physical and Electronic Properties. <i>ACS Applied Materials & Interfaces</i>, 2020, 12, 19718-19726.	8.0	21
23	Eutectics and Salt of Dapsone With Hydroxybenzoic Acids: Binary Phase Diagrams, Characterization and Evaluation. <i>Journal of Pharmaceutical Sciences</i>, 2020, 109, 2224-2236.	3.3	12
24	A facile gaseous sulfur treatment strategy for Li-rich and Ni-rich cathode materials with high cycling and rate performance. <i>Nano Energy</i>, 2019, 63, 103887.	16.0	82
25	Locality and strength of intermolecular interactions in organic crystals: using conceptual density functional theory (CDFT) to characterize a highly polymorphic system. <i>Theoretical Chemistry Accounts</i>, 2019, 138, 1.	1.4	3
26	Enhanced cycling stability of boron-doped lithium-rich layered oxide cathode materials by suppressing transition metal migration. <i>Journal of Materials Chemistry A</i>, 2019, 7, 3375-3383.	10.3	49
27	Agent-assisted VSse ternary alloy single crystals as an efficient stable electrocatalyst for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i>, 2019, 7, 15714-15721.	10.3	26
28	Achieving Both Enhanced Voltage and Current through Fine-Tuning Molecular Backbone and Morphology Control in Organic Solar Cells. <i>Advanced Energy Materials</i>, 2019, 9, 1901024.	19.5	73
29	Theoretical Prediction of Chiral 3D Hybrid Organic-Inorganic Perovskites. <i>Advanced Materials</i>, 2019, 31, e1807628.	21.0	64
30	Effect of Substituent Size and Isomerization on the Polymorphism of 2-(Naphthalenylamino)-benzoic Acids. <i>Crystal Growth and Design</i>, 2019, 19, 3694-3703.	3.0	6
31	Low operating temperature and highly selective NH <sub>3</sub> chemiresistive gas sensors based on Ag <sub>3</sub> PO <sub>4</sub> semiconductor. <i>Applied Surface Science</i>, 2019, 479, 1141-1147.	6.1	32
32	Supramolecular Design of Donor-Acceptor Complexes via Heteroatom Replacement toward Structure and Electrical Transporting Property Tailoring. <i>ACS Applied Materials & Interfaces</i>, 2019, 11, 1109-1116.	8.0	19
33	A Direct Method to Access Substituted Pyreno[4,5- <i>b</i> :9,10- <i>c</i> ] difuran and its Analogues. <i>Asian Journal of Organic Chemistry</i>, 2018, 7, 2213-2217.	2.7	6
34	Crystal packing and crystallization tendency from the melt of 2-((2-ethylphenyl)amino)nicotinic acid. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i>, 2018, 233, 9-16.	0.8	5
35	Zwitterion formation and subsequent carboxylate-pyridinium NH synthon generation through isomerization of 2-anilinonicotinic acid. <i>CrystEngComm</i>, 2018, 20, 6126-6132.	2.6	1
36	Substituent Electronegativity and Isostructurality in the Polymorphism of Clonixin Analogues. <i>Crystal Growth and Design</i>, 2018, 18, 7006-7014.	3.0	8

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37	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.	3.6	10
38	Spin control in reduced-dimensional chiral perovskites. Nature Photonics, 2018, 12, 528-533.	31.4	371
39	Pyrene-Containing Twistarene: Twelve Benzene Rings Fused in a Row. Angewandte Chemie - International Edition, 2018, 57, 13555-13559.	13.8	76
40	Pyrene-Containing Twistarene: Twelve Benzene Rings Fused in a Row. Angewandte Chemie, 2018, 130, 13743-13747.	2.0	27
41	Structural Isomerization of 2-Anilinonicotinic Acid Leads to a New Synthone in 6-Anilinonicotinic Acids. Crystal Growth and Design, 2018, 18, 4849-4859.	3.0	3
42	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.	3.1	18
43	Strong Hydrogen Bond Leads to a Fifth Crystalline Form and Polymorphism of Clonixin. ChemistrySelect, 2017, 2, 4942-4950.	1.5	15
44	Persistent Self-Association of Solute Molecules in Solution. Journal of Physical Chemistry B, 2017, 121, 10118-10124.	2.6	38
45	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.	6.7	139
46	Higher-Order Self-Assembly of Benzoic Acid in Solution. Crystal Growth and Design, 2017, 17, 5049-5053.	3.0	27
47	$\text{CH}\cdots\text{Cl}$ hydrogen bond in the conformational polymorphism of 4-chloro-phenylanthranilic acid. CrystEngComm, 2017, 19, 4345-4354.	2.6	18
48	Tautomeric Polymorphism of 4-Hydroxynicotinic Acid. Crystal Growth and Design, 2016, 16, 2573-2580.	3.0	23
49	Solid-State Spectroscopic Investigation of Molecular Interactions between Clofazimine and Hypromellose Phthalate in Amorphous Solid Dispersions. Molecular Pharmaceutics, 2016, 13, 3964-3975.	4.6	69
50	Oligothiophene-based small molecules with 3,3'-difluoro-2,2'-bithiophene central unit for solution-processed organic solar cells. Organic Electronics, 2016, 38, 172-179.	2.6	8
51	$\pi$ -Doping-pentacene with $\text{sp}^2$ -phosphorus atoms: towards high performance ambipolar semiconductors. Physical Chemistry Chemical Physics, 2016, 18, 3173-3178.	2.8	15
52	What are the practical limits for the specific surface area and capacitance of bulk $\text{sp}^2$ carbon materials?. Science China Chemistry, 2016, 59, 225-230.	8.2	17
53	Investigating the Interaction Pattern and Structural Elements of a Drug-Polymer Complex at the Molecular Level. Molecular Pharmaceutics, 2015, 12, 2459-2468.	4.6	54
54	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.	3.6	1

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55	A Series of Simple Oligomer-like Small Molecules Based on Oligothiophenes for Solution-Processed Solar Cells with High Efficiency. <i>Journal of the American Chemical Society</i> , 2015, 137, 3886-3893.	13.7	788
56	Small Molecules Based on Alkyl/Alkylthio-thieno[3,2- <i>b</i> ]thiophene-Substituted Benzo[1,2- <i>b</i> :4,5- <i>b'</i> ]dithiophene for Solution-Processed Solar Cells with High Performance. <i>Chemistry of Materials</i> , 2015, 27, 8414-8423.	6.7	71
57	Small-molecule solar cells with efficiency over 9%. <i>Nature Photonics</i> , 2015, 9, 35-41.	31.4	769
58	Using computational methods to explore improvements to Knä¶lker's iron catalyst. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 4361-4371.	2.8	19
59	The effect of substituents on the hydrogenation of an aldehyde catalyzed by Knä¶lker's catalyst. <i>Journal of Organometallic Chemistry</i> , 2014, 749, 69-74.	1.8	10
60	Impact of fluorinated end groups on the properties of acceptorâ€“donorâ€“acceptor type oligothiophenes for solution-processed photovoltaic cells. <i>Journal of Materials Chemistry C</i> , 2014, 2, 1337-1345.	5.5	19
61	Impact of the Electronâ€“transport Layer on the Performance of Solutionâ€“Processed Smallâ€“Molecule Organic Solar Cells. <i>ChemSusChem</i> , 2014, 7, 2358-2364.	6.8	40
62	High Chemoselectivity of an Advanced Iron Catalyst for the Hydrogenation of Aldehydes with Isolated Câ€“C Bond: A Computational Study. <i>Journal of Organic Chemistry</i> , 2014, 79, 9355-9364.	3.2	14
63	Intermolecular interactions in organic crystals: gaining insight from electronic structure analysis by density functional theory. <i>CrystEngComm</i> , 2014, 16, 7162-7171.	2.6	10
64	Theoretical exploration of stereochemical nonrigidity for R f Co(PF3) x (CO)4â€“x (R f =CF3, C2F5, C3F7,) Tj ETQq0 0.0 rgBT /Qverlock 10	2.6	0
65	The mechanism for the hydrogenation of ketones catalyzed by Knä¶lker's iron-catalyst. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 5264.	2.8	46
66	Efficient small molecule bulk heterojunction solar cells with high fill factors via introduction of Iâ€“stacking moieties as end group. <i>Journal of Materials Chemistry A</i> , 2013, 1, 1801-1809.	10.3	96
67	Controlling the Effective Surface Area and Pore Size Distribution of sp<sup>2</sup> Carbon Materials and Their Impact on the Capacitance Performance of These Materials. <i>Journal of the American Chemical Society</i> , 2013, 135, 5921-5929.	13.7	291
68	Investigation of Quinquethiophene Derivatives with Different End Groups for High Open Circuit Voltage Solar Cells. <i>Advanced Energy Materials</i> , 2013, 3, 639-646.	19.5	65
69	Preparation and electrochemistry properties of trifunctional 1,9-dithiophenalenylium salt and its neutral radical with benzene spacer. <i>Tetrahedron</i> , 2013, 69, 6890-6896.	1.9	5
70	Bromination of Isothianaphthene Derivatives towards the Application in Organic Electronics. <i>Chinese Journal of Chemistry</i> , 2013, 31, 1391-1396.	4.9	5
71	Impact of dye end groups on acceptorâ€“donorâ€“acceptor type molecules for solution-processed photovoltaic cells. <i>Journal of Materials Chemistry</i> , 2012, 22, 9173.	6.7	69
72	Isothianaphtheneâ€“Based Conjugated Polymers for Organic Photovoltaic Cells. <i>Macromolecular Chemistry and Physics</i> , 2012, 213, 1596-1603.	2.2	7

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73	Solution Processable Rhodamine-Based Small Molecule Organic Photovoltaic Cells with a Power Conversion Efficiency of 6.1%. <i>Advanced Energy Materials</i> , 2012, 2, 74-77.	19.5	303
74	Collision-induced dissociation (CID) of guanine radical cation in the gas phase: an experimental and computational study. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 4667.	2.8	21