Ming-Dao Zhang

List of Publications by Citations

88 papers	2,487 citations	26 h-index	48 g-index
92 ext. papers	3,072 ext. citations	5.7 avg, IF	5.55 L-index

#	Paper	IF	Citations
88	Novel MOF-Derived Co@N-C Bifunctional Catalysts for Highly Efficient Zn-Air Batteries and Water Splitting. *Advanced Materials*, **2018**, 30, 1705431	24	514
87	Solid-State Rechargeable Zn//NiCo and Zn–Air Batteries with Ultralong Lifetime and High Capacity: The Role of a Sodium Polyacrylate Hydrogel Electrolyte. *Advanced Energy Materials*, **2018**, 8, 1802288	21.8	146
86	2D Metal-Organic Frameworks (MOFs) for High-Performance BatCap Hybrid Devices. *Small*, **2020**, 16, e2001987	11	113
85	Bifunctional electrocatalysts for Zn–air batteries: recent developments and future perspectives. *Journal of Materials Chemistry A*, **2020**, 8, 6144-6182	13	81
84	MOF-derived Fe,Co@NC bifunctional oxygen electrocatalysts for Zn–air batteries. *Journal of Materials Chemistry A*, **2020**, 8, 9355-9363	13	77
83	Three self-penetrated, interlocked, and polycatenated supramolecular isomers via one-pot synthesis and crystallization. *Chemical Communications*, **2012**, 48, 681-3	5.8	75
82	Syntheses, Structures, and Characteristics of Four New Metal–Organic Frameworks Based on Flexible Tetrapyridines and Aromatic Polycarboxylate Acids. *Crystal Growth and Design*, **2012**, 12, 3426-3435	3.5	70
81	Series of Metal–Organic Frameworks Including Novel Architectural Features Based on a Star-like Tri(4-pyridylphenyl)amine Ligand. *Crystal Growth and Design*, **2013**, 13, 1961-1969	3.5	66
80	Metal–Organic Frameworks Based on Flexible V-Shaped Polycarboxylate Acids: Hydrogen Bondings, Non-Interpenetrated and Polycatenated. *Crystal Growth and Design*, **2012**, 12, 4072-4082	3.5	65
79	D-D-π-A organic dyes containing 4,4-di(2-thienyl)triphenylamine moiety for efficient dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2013**, 15, 634-41	3.6	63
78	Crystal Structures and Spectroscopic Properties of Metal–Organic Frameworks Based on Rigid Ligands with Flexible Functional Groups. *Crystal Growth and Design*, **2014**, 14, 491-499	3.5	57
77	Two Porous Zinc Coordination Polymers with (10,3) Topological Features Based on a N-Centered Tripodal Ligand and the Conversion of a (10,3)-d Subnet to a (10,3)-a Subnet. *Crystal Growth and Design*, **2011**, 11, 3039-3044	3.5	57
76	Diverse Structures of Metal–Organic Frameworks Based on a New Star-Like Tri(4-pyridylphenyl)amine Ligand. *Crystal Growth and Design*, **2012**, 12, 3957-3963	3.5	50
75	Luminescent metal-organic frameworks for nitro explosives detection. *Science China Chemistry*, **2016**, 59, 929-947	7.9	47
74	Structure-property relationship of homochiral and achiral supramolecular isomers obtained by one-pot synthesis. *Chemical Communications*, **2012**, 48, 10757-9	5.8	42
73	MOF-derived Co-MOF,O-doped carbon as trifunctional electrocatalysts to enable highly efficient Zn–air batteries and water-splitting. *Journal of Energy Chemistry*, **2021**, 56, 290-298	12	41
72	An Unprecedented Homochiral Metal–Organic Framework Based on Achiral Nanosized Pyridine and V-Shaped Polycarboxylate Acid Ligand. *Crystal Growth and Design*, **2013**, 13, 440-445	3.5	40

71	Highly-ordered TiO2 nanotube arrays with double-walled and bamboo-type structures in dye-sensitized solar cells. *Nano Energy*, **2012**, 1, 796-804	17.1	40
70	Fewer-layer conductive metal-organic nanosheets enable ultrahigh mass activity for the oxygen evolution reaction. *Chemical Communications*, **2018**, 54, 13579-13582	5.8	33
69	Effects of structural optimization on the performance of dye-sensitized solar cells: spirobifluorene as a promising building block to enhance Voc. *Journal of Materials Chemistry A*, **2016**, 4, 11782-11788	13	31
68	Three 2D/2D -> 2D or 3D Coordination Polymers: Parallel Stacked, Interpenetration, and Polycatenated. *Crystal Growth and Design*, **2013**, 13, 5045-5049	3.5	29
67	3D hole-transporting materials based on coplanar quinolizino acridine for highly efficient perovskite solar cells. *Chemical Science*, **2017**, 8, 7807-7814	9.4	28
66	Critical factors influencing the structures and properties of metal–organic frameworks. *CrystEngComm*, **2015**, 17, 981-991	3.3	28
65	Chiral 3D/3D hetero-interpenetrating framework with six kinds of helices, 3D polyrotaxane and 2D network via one-pot reaction. *CrystEngComm*, **2013**, 15, 227-230	3.3	28
64	Tuning Structural Topologies of a Series of Metal–Organic Frameworks: Different Bent Dicarboxylates. *Crystal Growth and Design*, **2013**, 13, 2111-2117	3.5	27
63	Effects of heterocycles containing different atoms as π-bridges on the performance of dye-sensitized solar cells. *Physical Chemistry Chemical Physics*, **2015**, 17, 16334-40	3.6	26
62	Improvement of dye-sensitized solar cells' performance through introducing suitable heterocyclic groups to triarylamine dyes. *Physical Chemistry Chemical Physics*, **2012**, 14, 2809-15	3.6	26
61	Picolinic acid as an efficient tridentate anchoring group adsorbing at Lewis acid sites and Brønsted acid sites of the TiO2 surface in dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 14809-14816	13	25
60	A series of MOFs based on a triangular tri(4-pyridylphenyl)amine ligand combined with carboxylate or nitrate auxiliary ligands. *Dalton Transactions*, **2015**, 44, 1412-9	4.3	24
59	Construction of Metal–Organic Frameworks Based on Two Neutral Tetradentate Ligands. *Crystal Growth and Design*, **2012**, 12, 4911-4918	3.5	24
58	Three-dimensional D-π-A organic sensitizer with coplanar triphenylamine moiety for dye-sensitized solar cells. *Dyes and Pigments*, **2017**, 140, 278-285	4.6	23
57	Enhanced performance of dye-sensitized solar cells with Y-shaped organic dyes containing di-anchoring groups. *New Journal of Chemistry*, **2016**, 40, 2799-2805	3.6	23
56	Two pairs of isomorphism and two 3D metal–organic frameworks based on a star-like ligand tri(4-pyridylphenyl)amine. *CrystEngComm*, **2014**, 16, 698-706	3.3	23
55	Syntheses, characterizations and properties of five new metal–organic complexes based on flexible ligand 4,4?-(phenylazanediyl)dibenzoic acid. *CrystEngComm*, **2013**, 15, 616-627	3.3	23
54	Flower-like MOF-derived Co–N-doped carbon composite with remarkable activity and durability for electrochemical hydrogen evolution reaction. *International Journal of Hydrogen Energy*, **2019**, 44, 30075-30083	4.7	22

53	Chiral and Noncentrosymmetric Metal□Organic Frameworks Featuring a 2D -> 3D Parallel/Parallel Inclined Subpolycatenation. *Crystal Growth and Design*, **2013**, 13, 3381-3388	3.5	22
52	Two dimethoxyphenylamine-substituted carbazole derivatives as hole-transporting materials for efficient inorganic-organic hybrid perovskite solar cells. *Dyes and Pigments*, **2017**, 146, 589-595	4.6	22
51	Trimetal-based N-doped carbon nanotubes arrays on Ni foams as self-supported electrodes for hydrogen/oxygen evolution reactions and water splitting. *Journal of Power Sources*, **2020**, 480, 228866	8.9	22
50	3-Layer conductive metal-organic nanosheets as electrocatalysts to enable an ultralow detection limit of HO. *Nanoscale*, **2019**, 11, 5058-5063	7.7	17
49	Promising alkoxy-wrapped porphyrins with novel push□pull moieties for dye-sensitized solar cells. *Journal of Materials Chemistry A*, **2014**, 2, 14883-14889	13	16
48	One neutral metal□organic framework with an unusual dmp topology for adsorption of dyes. *Polyhedron*, **2017**, 121, 231-235	2.7	15
47	Conductive MOFs as bifunctional oxygen electrocatalysts for all-solid-state Zn-air batteries. *Chemical Communications*, **2020**, 56, 13615-13618	5.8	15
46	The synthesis, structure and third-order nonlinear optical effect of a new 2D cluster polymer based on a [WS4Cu4]2+ SBU and 1,2-di(pyridin-4-yl)ethane. *CrystEngComm*, **2013**, 15, 7354	3.3	14
45	Strontium Chloride-Passivated Perovskite Thin Films for Efficient Solar Cells with Power Conversion Efficiency over 21% and Superior Stability. *ACS Applied Materials & Interfaces*, **2020**, 12, 3661-3669	9.5	14
44	Nano-Hydroxyapatite Encapsulated inside an Anion Exchanger for Efficient Defluoridation of Neutral and Weakly Alkaline Water. *ACS ES&T Engineering*, **2021**, 1, 46-54		14
43	Structure-performance relationship on the asymmetric methoxy substituents of spiro-OMeTAD for perovskite solar cells. *Solar Energy Materials and Solar Cells*, **2018**, 176, 318-323	6.4	14
42	A trilaminar cobalt coordination network with trinuclear and uninuclear building units. *Mendeleev Communications*, **2014**, 24, 180-181	1.9	12
41	Chiral crystallization and optical properties of three metal complexes based on two non-centrosymmetric tripodal ligands. *Dalton Transactions*, **2015**, 44, 5818-25	4.3	12
40	Construction of a series of metal□organic frameworks with a neutral tetradentate ligand and rigid carboxylate co-ligands. *CrystEngComm*, **2012**, 14, 8274	3.3	12
39	Improvement of dye-sensitized solar cells performance through introducing different heterocyclic groups to triarylamine dyes. *RSC Advances*, **2015**, 5, 3720-3727	3.7	11
38	Improvement of photovoltaic performance of DSSCs by modifying panchromatic zinc porphyrin dyes with heterocyclic units. *Journal of Materials Chemistry A*, **2014**, 2, 20841-20848	13	11
37	Syntheses, characterization, and properties of five coordination compounds based on the ligand tetrakis(4-pyridyloxymethylene)methane. *CrystEngComm*, **2014**, 16, 3917-3925	3.3	10
36	Efficient air-stable perovskite solar cells with a (FAI)(MAI)(MABr)(PbI)(PbBr) active layer fabricated a vacuum flash-assisted method under RH > 50.. *RSC Advances*, **2019**, 9, 10148-10154	3.7	9

35	Electric response of a metal-molecule-metal junction to laser pulse by solving hierarchical equations of motion. *Journal of Chemical Physics*, **2015**, 142, 084705	3.9	9
34	Application of W[Cu$_3$]-based secondary building units in functional metal–organic frameworks. *CrystEngComm*, **2013**, 15, 9265	3.3	9
33	Chiral four-fold interpenetrating 2D cadmium networks based on two achiral ligands. *Mendeleev Communications*, **2015**, 25, 65-66	1.9	9
32	Selectively sensing and dye adsorption properties of one Zn(II) architecture based on a rigid biphenyltetracarboxylate ligand. *Journal of Solid State Chemistry*, **2020**, 284, 121216	3.3	8
31	Architectures and DFT calculations of polyrotaxane MOFs with nanoscale macrocycles. *Dalton Transactions*, **2016**, 45, 3334-9	4.3	8
30	A three-dimensional non-interpenetrated porous metal–organic framework based on cationic 1-D chains. *Inorganic Chemistry Communication*, **2014**, 40, 148-150	3.1	8
29	A pair of 3D enantiotopic zinc(ii) complexes based on two asymmetric achiral ligands. *Dalton Transactions*, **2017**, 46, 14779-14784	4.3	7
28	Novel MOF-derived hollow CoFe alloy coupled with N-doped Ketjen Black as boosted bifunctional oxygen catalysts for Zn–air batteries. *Chemical Engineering Journal*, **2022**, 427, 131614	14.7	7
27	Synthesis and crystal structure of trinuclear zinc coordination polymer based on a triangle flexible carboxylic ligand. *Inorganic Chemistry Communication*, **2013**, 27, 88-91	3.1	6
26	Synthesis, aggregation-induced emission and application as chemosensor for explosives of a 1,10-phenanthroline derivative and its rhenium(I) carbonyl complex having triphenylamino and thienyl donors. *Inorganic Chemistry Communication*, **2017**, 84, 15-19	3.1	6
25	Ultrathin 2D catalysts with N-coordinated single Co atom outside Co cluster for highly efficient Zn-air battery. *Chemical Engineering Journal*, **2021**, 421, 129719	14.7	6
24	Facile synthesis of Co, N enriched carbon nanotube and active site identifications for bifunctional oxygen reduction and evolution catalysis. *Energy Storage Materials*, **2021**, 43, 365-374	19.4	6
23	Luminescent and porous zinc complex with 2D -> 3D parallel polycatenation based on a new rigid V-shaped pyridyl ligand. *Inorganic Chemistry Communication*, **2014**, 46, 285-288	3.1	5
22	The ligand effect resulted in different fluorescence responses of two similar zinc-based MOFs to high-valence metal ions and amino acids. *Microporous and Mesoporous Materials*, **2021**, 321, 111130	5.3	5
21	D-D-π-A organic dye containing rhodanine-3-acetic acid moiety for dye-sensitized solar cells. *Mendeleev Communications*, **2016**, 26, 288-290	1.9	5
20	Rh particles in N-doped porous carbon materials derived from ZIF-8 as an efficient bifunctional electrocatalyst for the ORR and HER.. *RSC Advances*, **2021**, 11, 13906-13911	3.7	4
19	Two isostructural Ni/Co(II) MOFs based on nitrogen heterocyclic ligands and their derived carbon materials for HER performance. *Journal of Molecular Structure*, **2022**, 1252, 132184	3.4	3
18	Hydrogen evolution reaction of one 2D cobalt coordination polymer with coordinated sulfate ion. *Journal of Solid State Chemistry*, **2021**, 299, 122191	3.3	3

17	Implanted cobalt ions in two zinc-based frameworks: Improved electrocatalyst for hydrogen evolution reaction. *Chemical Engineering Journal*, **2022**, 427, 130952	14.7	3
16	MOF-derived CoNi,CoO,NiO@N-C bifunctional oxygen electrocatalysts for liquid and all-solid-state Zn-air batteries. *Nanoscale*, **2021**, 13, 17655-17662	7.7	3
15	Simulations on photovoltaic conversion in perovskite solar cells by solving hierarchical equations of motion. *AIP Advances*, **2019**, 9, 055322	1.5	2
14	Hydrothermal syntheses, coordination isomerism and UV-VIS absorption of CoII and NiII complexes with mixed ligands. *Mendeleev Communications*, **2015**, 25, 296-298	1.9	2
13	Three Co complexes based on 1-(imidazol-1-yl)-4-(imidazol-4-yl)benzene: Syntheses, structures and stability property. *Polyhedron*, **2015**, 90, 28-33	2.7	2
12	Luminescent 2D->3D porous zinc complex based on bis[4-(pyridin-4-yl)phenyl]amine and benzene-p-dicarboxylic acid. *Mendeleev Communications*, **2016**, 26, 415-417	1.9	2
11	A novel and efficient method of MOF-derived electrocatalyst for HER performance through doping organic ligands. *Materials Chemistry Frontiers*,	7.8	2
10	A luminescent 2D -> 3D Cd complex via π interaction based on bis(4-(1H-imidazol-1-yl)phenyl)amine and 1,3-dicarboxybenzene acid. *Crystallography Reports*, **2017**, 62, 923-927	0.6	1
9	The effect of optical properties on photovoltaic performance in dye-sensitized TiO2 nanocrystalline solar cells. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 3948-54	1.3	1
8	Luminescent sensing for amino acids with a Cd-MOF based on 4′-(1H-tetrazol-5-yl)-biphenyl-4-carboxylic acid. *Journal of Coordination Chemistry*, **2021**, 74, 630-636	1.6	1
7	Energetic MOF-derived cobalt/iron nitrides embedded into N, S-codoped carbon nanotubes as superior bifunctional oxygen catalysts for Zn–air batteries. *Applied Surface Science*, **2021**, 569, 151030	6.7	1
6	Ion Channel Engineering in Super Thick Cathodes toward High-Energy-Density Li–S Batteries. *Energy & Fuels*, **2022**, 36, 4087-4093	4.1	1
5	Improved the Electrocatalytic Hydrogen Evolution Performances of Co-MOF Derivatives Through Introducing Zinc Ions by Two Ways. *Energy & Fuels*, **2022**, 36, 5843-5851	4.1	1
4	A multifunctional pseudo-polyrotaxane coordination polymer based on the trinuclear cluster [Co3(COO)4(OH)2]: Synthesis, structure and properties. *Polyhedron*, **2020**, 186, 114611	2.7	0
3	Synthesis and structure of a 2D -> 3D framework with coexistence of hydrogen bonds and polythreading character. *Crystallography Reports*, **2015**, 60, 1106-1110	0.6	0
2	Synthesis and structure of a cobalt coordination polymer based on 2,8-di(pyridin-4-yl)dibenzothiophene and 4,4-dicarboxydiphenylsulfone. *Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences*, **2016**, 71, 311-315	1	
1	Two Co/Ni(II)-Based Coordination Polymers for Degradation of Dyes. *Crystallography Reports*, **2021**, 66, 1262-1267	0.6	