Hua-Bin Zhang

List of Publications by Year in Descending Order

99 papers	9,048 citations	47 h-index	95 g-index
102 ext. papers	11,225 ext. citations	12.3 avg, IF	6.71 L-index

#	Paper	IF	Citations
99	Toward solar-driven carbon recycling. *Joule*, **2022**,	27.8	17
98	Single-atom catalysts for photocatalytic energy conversion. *Joule*, **2022**, 6, 92-133	27.8	14
97	Hollow MoC/NC sphere for electromagnetic wave attenuation: direct observation of interfacial polarization on nanoscale hetero-interfaces. *Journal of Materials Chemistry A*, **2022**, 10, 1290-1298	13	6
96	Synergy between Confined Cobalt Centers and Oxygen Defects on □Fe2O3 Platelets for Efficient Photocatalytic CO2 Reduction. *Solar Rrl*, **2022**, 6, 2100833	7.1	1
95	Surface Modification of Two-Dimensional Photocatalysts for Solar Energy Conversion.. *Advanced Materials*, **2022**, e2200180	24	18
94	Ultrahigh Density of Atomic CoFe-Electron Synergy in Noncontinuous Carbon Matrix for Highly Efficient Magnetic Wave Adsorption.. *Nano-Micro Letters*, **2022**, 14, 96	19.5	3
93	Exposing unsaturated Cu-O sites in nanoscale Cu-MOF for efficient electrocatalytic hydrogen evolution. *Science Advances*, **2021**, 7,	14.3	53
92	Synthesis of a Boron-Imidazolate Framework Nanosheet with Dimer Copper Units for CO Electroreduction to Ethylene. *Angewandte Chemie - International Edition*, **2021**, 60, 16687-16692	16.4	21
91	Synthesis of a Boron□midazolate Framework Nanosheet with Dimer Copper Units for CO2 Electroreduction to Ethylene. *Angewandte Chemie*, **2021**, 133, 16823-16828	3.6	2
90	Engineering the Coordination Sphere of Isolated Active Sites to Explore the Intrinsic Activity in Single-Atom Catalysts. *Nano-Micro Letters*, **2021**, 13, 136	19.5	28
89	Design of Hybrid Zeolitic Imidazolate Framework-Derived Material with C-Mo-S Triatomic Coordination for Electrochemical Oxygen Reduction. *Small*, **2021**, 17, e2003256	11	7
88	Atomically defined Co on two-dimensional TiO2 nanosheet for photocatalytic hydrogen evolution. *Chemical Engineering Journal*, **2021**, 420, 127681	14.7	20
87	Atomically Dispersed Reactive Centers for Electrocatalytic CO Reduction and Water Splitting. *Angewandte Chemie - International Edition*, **2021**, 60, 13177-13196	16.4	60
86	Atomically Dispersed Reactive Centers for Electrocatalytic CO2 Reduction and Water Splitting. *Angewandte Chemie*, **2021**, 133, 13285-13304	3.6	10
85	Highly efficient electrocatalysts for overall water splitting: mesoporous CoS/MoS with hetero-interfaces. *Chemical Communications*, **2021**, 57, 4847-4850	5.8	14
84	A hybrid zeolitic imidazolate framework-derived ZnO/ZnMoO heterostructure for electrochemical hydrogen production. *Dalton Transactions*, **2021**, 50, 11365-11369	4.3	1
83	Vertically Aligned MoS with In-Plane Selectively Cleaved Mo-S Bond for Hydrogen Production. *Nano Letters*, **2021**, 21, 1848-1855	11.5	24

82	Manipulating the Local Coordination and Electronic Structures for Efficient Electrocatalytic Oxygen Evolution. *Advanced Materials*, **2021**, 33, e2103004	24	30
81	Recent Advances on Transition Metal Dichalcogenides for Electrochemical Energy Conversion. *Advanced Materials*, **2021**, 33, e2008376	24	24
80	Asymmetric metal□rganic frameworks with double helices for enantioselective recognition. *CrystEngComm*, **2021**, 23, 4748-4751	3.3	0
79	Isolated Cobalt Centers on WO Nanowires Perform as a Reaction Switch for Efficient CO Photoreduction. *Journal of the American Chemical Society*, **2021**, 143, 2173-2177	16.4	74
78	Implanting Isolated Ru Atoms into Edge-Rich Carbon Matrix for Efficient Electrocatalytic Hydrogen Evolution. *Advanced Energy Materials*, **2020**, 10, 2000882	21.8	70
77	Emerging Multifunctional Single-Atom Catalysts/Nanozymes. *ACS Central Science*, **2020**, 6, 1288-1301	16.8	76
76	Subnanometer iron clusters confined in a porous carbon matrix for highly efficient zinc□ir batteries. *Nanoscale Horizons*, **2020**, 5, 359-365	10.8	18
75	Co9S8 integrated into nitrogen/sulfur dual-doped carbon nanofibers as an efficient oxygen bifunctional electrocatalyst for Zn□ir batteries. *Sustainable Energy and Fuels*, **2020**, 4, 1093-1098	5.8	12
74	Direct probing of atomically dispersed Ru species over multi-edged TiO for highly efficient photocatalytic hydrogen evolution. *Science Advances*, **2020**, 6,	14.3	62
73	Hierarchical MoS Hollow Architectures with Abundant Mo Vacancies for Efficient Sodium Storage. *ACS Nano*, **2019**, 13, 5533-5540	16.7	134
72	HZIF-based hybrids for electrochemical energy applications. *Nanoscale*, **2019**, 11, 15763-15769	7.7	11
71	Unveiling the Activity Origin of Electrocatalytic Oxygen Evolution over Isolated Ni Atoms Supported on a N-Doped Carbon Matrix. *Advanced Materials*, **2019**, 31, e1904548	24	151
70	Intramolecular electronic coupling in porous iron cobalt (oxy)phosphide nanoboxes enhances the electrocatalytic activity for oxygen evolution. *Energy and Environmental Science*, **2019**, 12, 3348-3355	35.4	147
69	Ultrasmall MoO Clusters as a Novel Cocatalyst for Photocatalytic Hydrogen Evolution. *Advanced Materials*, **2019**, 31, e1804883	24	82
68	Interfacing Photosynthetic Membrane Protein with Mesoporous WO Photoelectrode for Solar Water Oxidation. *Small*, **2018**, 14, e1800104	11	11
67	Dynamic traction of lattice-confined platinum atoms into mesoporous carbon matrix for hydrogen evolution reaction. *Science Advances*, **2018**, 4, eaao6657	14.3	344
66	Interface engineered in situ anchoring of CoS nanoparticles into a multiple doped carbon matrix: highly efficient zinc-air batteries. *Nanoscale*, **2018**, 10, 2649-2657	7.7	53
65	Surface step decoration of isolated atom as electron pumping: Atomic-level insights into visible-light hydrogen evolution. *Nano Energy*, **2018**, 45, 109-117	17.1	80

64	Boosting electrocatalytic hydrogen evolution by plasmon-driven hot-electron excitation. *Nanoscale*, **2018**, 10, 2236-2241	7.7	36
63	Photo-enhanced lithium oxygen batteries with defective titanium oxide as both photo-anode and air electrode. *Energy Storage Materials*, **2018**, 13, 49-56	19.4	49
62	Ultra-small freestanding amorphous molybdenum sulfide colloidal nanodots for highly efficient photocatalytic hydrogen evolution reaction. *Applied Catalysis B: Environmental*, **2018**, 232, 446-453	21.8	45
61	Single-Atom Catalysts: Emerging Multifunctional Materials in Heterogeneous Catalysis. *Advanced Energy Materials*, **2018**, 8, 1701343	21.8	485
60	A modular strategy for decorating isolated cobalt atoms into multichannel carbon matrix for electrocatalytic oxygen reduction. *Energy and Environmental Science*, **2018**, 11, 1980-1984	35.4	173
59	Light-Enhanced Carbon Dioxide Activation and Conversion by Effective Plasmonic Coupling Effect of Pt and Au Nanoparticles. *ACS Applied Materials & Interfaces*, **2018**, 10, 408-416	9.5	118
58	Surface Modulation of Hierarchical MoS2 Nanosheets by Ni Single Atoms for Enhanced Electrocatalytic Hydrogen Evolution. *Advanced Functional Materials*, **2018**, 28, 1807086	15.6	237
57	Integrating the g-CN Nanosheet with B-H Bonding Decorated Metal-Organic Framework for CO Activation and Photoreduction. *ACS Nano*, **2018**, 12, 5333-5340	16.7	186
56	Double defects modified carbon nitride nanosheets with enhanced photocatalytic hydrogen evolution. *Physical Chemistry Chemical Physics*, **2018**, 20, 17471-17476	3.6	20
55	Electronic structure engineering to boost oxygen reduction activity by controlling the coordination of the central metal. *Energy and Environmental Science*, **2018**, 11, 2348-2352	35.4	203
54	Interface Designing over WS2/W2C for Enhanced Hydrogen Evolution Catalysis. *ACS Applied Energy Materials*, **2018**, 1, 3377-3384	6.1	34
53	Co-porphyrin/carbon nitride hybrids for improved photocatalytic CO2 reduction under visible light. *Applied Catalysis B: Environmental*, **2017**, 200, 141-149	21.8	152
52	Elemental Boron for Efficient Carbon Dioxide Reduction under Light Irradiation. *Angewandte Chemie*, **2017**, 129, 5662-5666	3.6	16
51	Elemental Boron for Efficient Carbon Dioxide Reduction under Light Irradiation. *Angewandte Chemie - International Edition*, **2017**, 56, 5570-5574	16.4	73
50	R□ktitelbild: Elemental Boron for Efficient Carbon Dioxide Reduction under Light Irradiation (Angew. Chem. 20/2017). *Angewandte Chemie*, **2017**, 129, 5724-5724	3.6	
49	Metal-Organic-Framework-Based Materials as Platforms for Renewable Energy and Environmental Applications. *Joule*, **2017**, 1, 77-107	27.8	524
48	n-type boron phosphide as a highly stable, metal-free, visible-light-active photocatalyst for hydrogen evolution. *Nano Energy*, **2016**, 28, 158-163	17.1	70
47	Highly active nonprecious metal hydrogen evolution electrocatalyst: ultrafine molybdenum carbide nanoparticles embedded into a 3D nitrogen-implanted carbon matrix. *NPG Asia Materials*, **2016**, 8, e293-e293	10.3	89

46	Drastic Enhancement of Photocatalytic Activities over Phosphoric Acid Protonated Porous g-C3 N4 Nanosheets under Visible Light. *Small*, **2016**, 12, 4431-9	11	182
45	Efficient Visible-Light-Driven Carbon Dioxide Reduction by a Single-Atom Implanted Metal□Organic Framework. *Angewandte Chemie*, **2016**, 128, 14522-14526	3.6	124
44	Surface-Plasmon-Enhanced Photodriven CO2 Reduction Catalyzed by Metal-Organic-Framework-Derived Iron Nanoparticles Encapsulated by Ultrathin Carbon Layers. *Advanced Materials*, **2016**, 28, 3703-10	24	227
43	Cage-Type Highly Graphitic Porous Carbon-Co3O4 Polyhedron as the Cathode of Lithium-Oxygen Batteries. *ACS Applied Materials & Interfaces*, **2016**, 8, 2796-804	9.5	89
42	Active Sites Implanted Carbon Cages in Core-Shell Architecture: Highly Active and Durable Electrocatalyst for Hydrogen Evolution Reaction. *ACS Nano*, **2016**, 10, 684-94	16.7	371
41	Tunable luminescence and white light emission of mixed lanthanide□organic frameworks based on polycarboxylate ligands. *Journal of Materials Chemistry C*, **2016**, 4, 3364-3374	7.1	99
40	A Co□□embedded porous ZnO rhombic dodecahedron prepared using zeolitic imidazolate frameworks as precursors for CO□photoreduction. *Nanoscale*, **2016**, 8, 6712-20	7.7	77
39	Engineering coordination polymers for photocatalysis. *Nano Energy*, **2016**, 22, 149-168	17.1	197
38	Mesoporous palladium□copper bimetallic electrodes for selective electrocatalytic reduction of aqueous CO2 to CO. *Journal of Materials Chemistry A*, **2016**, 4, 4776-4782	13	93
37	A Highly Energetic N-Rich Metal-Organic Framework as a New High-Energy-Density Material. *Chemistry - A European Journal*, **2016**, 22, 1141-5	4.8	47
36	Enhanced Photocatalytic Oxidation of Isopropanol by [email□protected]2 Core□Shell Structure with Ultrathin Anatase Porous Shell: Toxic Intermediate Control. *Industrial & Engineering Chemistry Research*, **2016**, 55, 8096-8103	3.9	42
35	Promoting Active Species Generation by Plasmon-Induced Hot-Electron Excitation for Efficient Electrocatalytic Oxygen Evolution. *Journal of the American Chemical Society*, **2016**, 138, 9128-36	16.4	269
34	Targeted Synthesis of 2H- and 1T-Phase MoS Monolayers for Catalytic Hydrogen Evolution. *Advanced Materials*, **2016**, 28, 10033-10041	24	415
33	Improved Photocatalytic H Evolution over G-Carbon Nitride with Enhanced In-Plane Ordering. *Small* , **2016**, 12, 6160-6166	11	41
32	Efficient Visible-Light-Driven Carbon Dioxide Reduction by a Single-Atom Implanted Metal-Organic Framework. *Angewandte Chemie - International Edition*, **2016**, 55, 14310-14314	16.4	450
31	In Situ Bond Modulation of Graphitic Carbon Nitride to Construct p□ Homojunctions for Enhanced Photocatalytic Hydrogen Production. *Advanced Functional Materials*, **2016**, 26, 6822-6829	15.6	429
30	An Amine-Functionalized Iron(III) Metal-Organic Framework as Efficient Visible-Light Photocatalyst for Cr(VI) Reduction. *Advanced Science*, **2015**, 2, 1500006	13.6	289
29	Asymmetric induction in homochiral MOFs: from interweaving double helices to single helices. *Chemical Communications*, **2015**, 51, 16331-3	5.8	30

28	Conversion of Carbon Dioxide by Methane Reforming under Visible-Light Irradiation: Surface-Plasmon-Mediated Nonpolar Molecule Activation. *Angewandte Chemie - International Edition*, **2015**, 54, 11545-9	16.4	129
27	Electrostatic Self-Assembly of Nanosized Carbon Nitride Nanosheet onto a Zirconium Metal□Organic Framework for Enhanced Photocatalytic CO2 Reduction. *Advanced Functional Materials*, **2015**, 25, 5360-5367	15.6	344
26	Conversion of Carbon Dioxide by Methane Reforming under Visible-Light Irradiation: Surface-Plasmon-Mediated Nonpolar Molecule Activation. *Angewandte Chemie*, **2015**, 127, 11707-11711	3.6	18
25	Interpreted Recognition Process: A Highly Sensitive and Selective Luminescence Chemosensor. *Chemistry - A European Journal*, **2015**, 21, 11767-72	4.8	18
24	Hierarchical nanowire arrays based on carbon nanotubes and Co3O4 decorated ZnO for enhanced photoelectrochemical water oxidation. *Journal of Materials Chemistry A*, **2015**, 3, 13731-13737	13	45
23	Encapsulation of an interpenetrated diamondoid inorganic building block in a metal-organic framework. *Chemistry - A European Journal*, **2015**, 21, 4931-4	4.8	13
22	Absolute helicity induction: chiral information transfer from metal centre to the framework. *CrystEngComm*, **2014**, 16, 1245	3.3	16
21	A highly luminescent chameleon: fine-tuned emission trajectory and controllable energy transfer. *Journal of Materials Chemistry C*, **2014**, 2, 1367	7.1	85
20	An alternative strategy to construct Fe(II)-based MOFs with multifarious structures and magnetic behaviors. *CrystEngComm*, **2014**, 16, 9208-9215	3.3	26
19	Two luminescent Cu(I) coordination polymers based on the 1-(4-tetrazolephenyl)imidazole ligand for sensing of nitrobenzene. *Inorganic Chemistry Frontiers*, **2014**, 1, 389	6.8	42
18	Acentric and chiral heterometallic inorganic□organic hybrid frameworks mediated by alkali or alkaline earth ions: synthesis and NLO properties. *CrystEngComm*, **2014**, 16, 4059	3.3	24
17	Digital controlled luminescent emission via patterned deposition of lanthanide coordination compounds. *ACS Applied Materials & Interfaces*, **2014**, 6, 12594-9	9.5	11
16	Tuning Photoluminescence Emission of a Cadmium□Organic Framework by Excitation. *ChemPlusChem*, **2014**, 79, 1080-1082	2.8	6
15	An effective approach for constructing acentric heterometallic-organic framework with catalytic activity. *Inorganic Chemistry Communication*, **2014**, 43, 27-30	3.1	6
14	Synthesis, Structure, and Magnetic Study of Two Tridecanuclear Planar Cobalt Clusters with Unique Core Geometries. *European Journal of Inorganic Chemistry*, **2013**, 2013, 5534-5540	2.3	9
13	Interweaving of two enantiomorphic 3D Cd(II)/K(I) coordination polymers with homochiral unequal triple concentric helical chains. *CrystEngComm*, **2013**, 15, 5201	3.3	19
12	Unusual [CdII3O2(CO2)8] clusters as SBUs for the construction of a new pcu-type metal-organic framework. *Inorganic Chemistry Communication*, **2013**, 38, 11-13	3.1	7
11	An inorganic-organic composite framework with an unprecedented 3D heterometallic inorganic connectivity and white-light emission. *Chemical Communications*, **2013**, 49, 2231-3	5.8	49

10	A multi-metal-cluster MOF with Cu4I4 and Cu6S6 as functional groups exhibiting dual emission with both thermochromic and near-IR character. *Chemical Science*, **2013**, 4, 1484	9.4	178
9	Full-colour fluorescent materials based on mixed-lanthanide(III) metal–organic complexes with high-efficiency white light emission. *Journal of Materials Chemistry C*, **2013**, 1, 888-891	7.1	132
8	An unusual highly connected 3D net with hydrophilic pore surface. *CrystEngComm*, **2013**, 15, 3016	3.3	13
7	An effective method for the synthesis of 3D inorganic Ln(III)–K(I) sulfate open frameworks with unusually high thermal stability: in situ generation of sulfate anions. *Journal of Materials Chemistry*, **2012**, 22, 6831		14
6	Highly luminescent and thermostable lanthanide-carboxylate framework materials with helical configurations. *Journal of Materials Chemistry*, **2012**, 22, 21210		93
5	Two enantiomorphic 3D Zn(II)–carboxylate MOFs with double helical structures serving as a chiral source induced by hydrogen bonding. *CrystEngComm*, **2012**, 14, 4165	3.3	23
4	Synthesis, structures and luminescent properties of new Pb(II)/M(I) (M = K, Rb and Cs) frameworks based on dicarboxylic acids: a novel icosahedral Pb6-M6 SBU. *CrystEngComm*, **2012**, 14, 936-944	3.3	27
3	Synthesis, Structures, and Magnetic Properties of Three 3D Coordination Polymers Based on M4O4 Cubanes (M = MnII, FeII, CoII). *European Journal of Inorganic Chemistry*, **2012**, 2012, 4029-4035	2.3	21
2	Operando Monitoring and Deciphering the Structural Evolution in Oxygen Evolution Electrocatalysis. *Advanced Energy Materials*,2103383	21.8	17
1	Kinetically accelerated and high-mass loaded lithium storage enabled by atomic iron embedded carbon nanofibers. *Nano Research*,1	10	0