

Hongming Wang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

98 papers	2,729 citations	24 h-index	50 g-index
105 ext. papers	3,449 ext. citations	5.6 avg, IF	5.47 L-index

#	Paper	IF	Citations
98	D π A-Type fluorophores with efficient dual-state emission for imaging at ultralow concentration. <i>Materials Chemistry Frontiers</i> , 2022 , 6, 155-162	7.8	7
97	Accessing conjugated and twisted structures for efficient dual-state emission fluorophore and its sensitive lysosomal imaging. <i>Dyes and Pigments</i> , 2022 , 201, 110243	4.6	2
96	Constructing nickel-iron oxyhydroxides integrated with iron oxides by microorganism corrosion for oxygen evolution.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119, e2202812119	11.5	0
95	Corrosion formation and phase transformation of nickel-iron hydroxide nanosheets array for efficient water oxidation. <i>Nano Research</i> , 2021 , 14, 4528	10	11
94	Dual-state emission and solvatofluorochromism properties of facile squaraine dyes with cis-3,5-dimethylpiperidine. <i>Journal of Luminescence</i> , 2021 , 233, 117882	3.8	0
93	Efficient dinitrogen fixation on porous covalent organic framework/carbon nanotubes hybrid at low overpotential. <i>Functional Materials Letters</i> , 2021 , 14, 2151027	1.2	0
92	The Activation and Reduction of N ₂ by Single/Double-Atom Electrocatalysts: A First-Principle Study. <i>ChemistrySelect</i> , 2021 , 6, 1787-1794	1.8	0
91	Adjusting crystal morphology and emission behavior of organic fluorophore via the synergistic effect of proton and anion. <i>Dyes and Pigments</i> , 2021 , 195, 109696	4.6	
90	Tetraphenylethylene-incorporated squaraine dyes: structural and theoretical insights into the diverse emission behaviors in solution and solid state. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 4549-4556	7.1	13
89	Benzocaine-incorporated smart 1,3-squaraine dyes: Red emission, excellent stability and cell bioimaging. <i>Dyes and Pigments</i> , 2020 , 173, 107977	4.6	7
88	Effect of Hydrotalcites Interlayer Water on Pt-Catalyzed Aqueous-Phase Selective Hydrogenation of Cinnamaldehyde. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 2516-2524	9.5	13
87	A squaraine-based fluorescence turn on chemosensor with ICT character for highly selective and sensitive detection of Al in aqueous media and its application in living cell imaging. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020 , 228, 117590	4.4	5
86	Bismuth Oxides with Enhanced Bismuth-Oxygen Structure for Efficient Electrochemical Reduction of Carbon Dioxide to Formate. <i>ACS Catalysis</i> , 2020 , 10, 743-750	13.1	126
85	Preparation of nickel-iron hydroxides by microorganism corrosion for efficient oxygen evolution. <i>Nature Communications</i> , 2020 , 11, 5075	17.4	94
84	CuMoWO Solid Solution Display Visible Light Photoreduction of CO to CHOH Coupling with Oxidation of Amine to Imine. <i>Nanomaterials</i> , 2020 , 10,	5.4	3
83	A phenyl-removal strategy for accessing an efficient dual-state emitter in the red/NIR region guided by TDDFT calculations. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 13621-13626	7.1	8
82	Tuning solid state emission of semisquaraines via trimming central-ring structures. <i>Dyes and Pigments</i> , 2020 , 173, 107926	4.6	3

81	Reversible Specific Vapoluminescence Behavior in Pure Organic Crystals through Hydrogen-Bonding Docking Strategy. <i>Advanced Optical Materials</i> , 2019 , 7, 1801549	8.1	20
80	Excited state intramolecular single proton transfer mechanism of pigment yellow 101 in solid state: Experiment and DFT calculation. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2019 , 217, 93-100	4.4	6
79	Energy-saving hydrogen production coupling urea oxidation over a bifunctional nickel-molybdenum nanotube array. <i>Nano Energy</i> , 2019 , 60, 894-902	17.1	125
78	Synthesis of Secondary Aldimines from the Hydrogenative Cross-Coupling of Nitriles and Amines over Al ₂ O ₃ -Supported Ni Catalysts. <i>ACS Catalysis</i> , 2019 , 9, 8413-8423	13.1	6
77	Engineering bunched Pt-Ni alloy nanocages for efficient oxygen reduction in practical fuel cells. <i>Science</i> , 2019 , 366, 850-856	33.3	545
76	Temperature Controlling Polymorphism and Polymorphic Interconversion in Sublimation Crystallization of 5-Methoxy-salicylaldehyde Azine. <i>Crystal Growth and Design</i> , 2019 , 19, 320-327	3.5	8
75	Designed synthesis of Co salen-based metalated crystalline polymers. <i>Journal of Polymer Science Part A</i> , 2019 , 57, 641-647	2.5	2
74	Highly efficient crystal red fluorescent 1,2-squaraine dyes with excellent biocompatibility and bioimaging. <i>Dyes and Pigments</i> , 2019 , 162, 654-661	4.6	9
73	An Earth-Abundant Tungsten-Nickel Alloy Electrocatalyst for Superior Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2018 , 1, 1228-1235	5.6	34
72	An Earth-Abundant Catalyst-Based Seawater Photoelectrolysis System with 17.9% Solar-to-Hydrogen Efficiency. <i>Advanced Materials</i> , 2018 , 30, e1707261	24	110
71	Anodic Hydrazine Oxidation Assists Energy-Efficient Hydrogen Evolution over a Bifunctional Cobalt Perselenide Nanosheet Electrode. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 7649-7653	16.4	241
70	Theoretical design of sandwich two-dimensional structures for photocatalysts and nano-optoelectronic devices. <i>Journal of Materials Science</i> , 2018 , 53, 8274-8284	4.3	4
69	Photocatalytic Reduction of CO ₂ to CH ₃ OH Coupling with the Oxidation of Amine to Imine. <i>Catalysis Letters</i> , 2018 , 148, 2382-2390	2.8	15
68	Controlling Crystal Structures and Multiple Thermo- and Vapochromic Behaviors of Benzimidazole-Based Squaraine Dyes by Molecular Design and Solvent Adjustment. <i>Chemistry - A European Journal</i> , 2018 , 24, 13205-13212	4.8	14
67	On the role of water in selective hydrogenation of cinnamaldehyde to cinnamyl alcohol on PtFe catalysts. <i>Journal of Catalysis</i> , 2018 , 364, 192-203	7.3	55
66	Ru/Al ₂ O ₃ catalyzed CO ₂ hydrogenation: Oxygen-exchange on metal-support interfaces. <i>Journal of Catalysis</i> , 2018 , 367, 194-205	7.3	50
65	An alkali-free approach for recyclable detection and accurate quantification of carbon dioxide gas. <i>Sensors and Actuators B: Chemical</i> , 2017 , 244, 252-258	8.5	3
64	A multi-responsive squaraine-based turn on fluorescent chemosensor for highly sensitive detection of Al ³⁺ , Zn ²⁺ and Cd ²⁺ in aqueous media and its biological application. <i>Sensors and Actuators B: Chemical</i> , 2017 , 249, 386-394	8.5	44

63	Ni Supported on LaFeO ₃ Perovskites for Methane Steam Reforming: On the Promotional Effects of Plasma Treatment in H ₂ /Ar Atmosphere. <i>Topics in Catalysis</i> , 2017 , 60, 831-842	2.3	17
62	Squaraine dyes: The hierarchical synthesis and its application in optical detection. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2017 , 31, 84-113	16.4	63
61	Two dimensional covalent organic framework materials for chemical fixation of carbon dioxide: excellent repeatability and high selectivity. <i>Dalton Transactions</i> , 2017 , 46, 10780-10785	4.3	25
60	A squaraine-based sensor for colorimetric detection of CO ₂ gas in an aqueous medium through an unexpected recognition mechanism: experiment and DFT calculation. <i>Analytical Methods</i> , 2017 , 9, 6830-6838	2.2	9
59	DFT study of the formation mechanism of anthraquinone from the reaction of NO and anthracene on NaCl clusters: the role of NaNO. <i>Environmental Sciences: Processes and Impacts</i> , 2016 , 18, 1500-1507	4.3	2
58	DFT study of N-Heterocyclic Olefins-catalyzed carboxylative cyclization of CO ₂ with alkynol: A CO ₂ -promoted hydrogen abstraction mechanism. <i>Journal of Theoretical and Computational Chemistry</i> , 2016 , 15, 1650058	1.8	4
57	Quantum chemical insight into the reactivity of 1,3-dipoles on coronene as model for nanographenes. <i>Russian Journal of Physical Chemistry A</i> , 2016 , 90, 173-182	0.7	1
56	A colorimetric and fluorescent chemosensor for the highly sensitive detection of CO ₂ gas: experiment and DFT calculation. <i>Sensors and Actuators B: Chemical</i> , 2016 , 233, 76-82	8.5	37
55	H ₂ adsorption and dissociation on PdO(101) films supported on rutile TiO ₂ (110) facet: elucidating the support effect by DFT calculations. <i>Journal of Molecular Modeling</i> , 2016 , 22, 204	2	1
54	The reaction mechanism of incorporation of carbon dioxide into o-alkynylaniline derivatives catalyzed by silver salt. <i>Computational and Theoretical Chemistry</i> , 2015 , 1058, 34-40	2	11
53	One-step synthesis of alkyl 2-chloropyrimido[1,2-a]benzimidazole-3-carboxylates under catalyst-free: combined experimental and computational studies. <i>Tetrahedron Letters</i> , 2015 , 56, 5071-5075	5.7	6
52	Highly sensitive detection of carbon dioxide by a pyrimido[1,2-a]benzimidazole derivative: combining experimental and theoretical studies. <i>Analyst</i> , 2015 , 140, 5099-104	5	7
51	Photocatalytic reduction of CO ₂ coupled with selective alcohol oxidation under ambient conditions. <i>Catalysis Science and Technology</i> , 2015 , 5, 4800-4805	5.5	18
50	A squaraine-based colorimetric and F(-) dependent chemosensor for recyclable CO ₂ gas detection: highly sensitive off-on-off response. <i>Chemical Communications</i> , 2015 , 51, 13802-5	5.8	30
49	Light-induced BiOBr nanosheets accelerated highly regioselective intermolecular trifluoromethylation/arylation of alkenes to synthesize CF ₃ -containing aza-heterocycles. <i>Tetrahedron</i> , 2015 , 71, 4344-4351	2.4	30
48	The synergistic mechanism of graphene and MoS ₂ for hydrogen generation: insights from density functional theory. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 11375-81	3.6	28
47	Theoretical insights into copper(I)/NHC-catalyzed C≡C carboxylation of terminal alkynes with CO ₂ : the reaction mechanisms and the roles of NHC. <i>RSC Advances</i> , 2014 , 4, 32457-32466	3.7	18
46	Recent advances in carbon dioxide capture, fixation, and activation by using N-heterocyclic carbenes. <i>ChemSusChem</i> , 2014 , 7, 962-98	8.3	136

45	The regioselectivity and synthetic mechanism of 1,2-benzimidazole squaraines: combined experimental and theoretical studies. <i>RSC Advances</i> , 2013 , 3, 18055	3.7	7
44	Understanding the mechanism of poly(3-hexylthiophene)-b-poly(4-vinylpyridine) as a nanostructuring compatibilizer for improving the performance of poly(3-hexylthiophene)/ZnO-based hybrid solar cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 10881	13	12
43	The reduction of carbon dioxide in iron biocatalyst catalytic hydrogenation reaction: a theoretical study. <i>Dalton Transactions</i> , 2013 , 42, 11186-93	4.3	15
42	Donor-acceptor-integrated conjugated polymers based on carbazole[3,4-c:5,6-c']bis[1,2,5]thiadiazole with tight π -stacking for photovoltaics. <i>Journal of Polymer Science Part A</i> , 2013 , 51, 565-574	2.5	9
41	Adsorption of CO ₂ on Cu ₂ O (111) oxygen-vacancy surface: First-principles study. <i>Chemical Physics Letters</i> , 2013 , 568-569, 84-89	2.5	35
40	Modulation of the molecular geometry of carbazolebis(thiadiazole)-based conjugated polymers for photovoltaic applications. <i>Polymer Chemistry</i> , 2013 , 4, 2480	4.9	7
39	Nickel(II) Complexes with Three-Dimensional Geometry π -Diimine Ligands: Synthesis and Catalytic Activity toward Copolymerization of Norbornene. <i>Organometallics</i> , 2013 , 32, 2291-2299	3.8	54
38	Experimental Investigation and Theoretical Calculation of Molecular Architectures on Carbazole for Photovoltaics. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 9581-9589	3.8	10
37	Photophysical properties of a hydrazone-based switch: A TDDFT study and comparison. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2012 , 94, 222-7	4.4	3
36	Self-assembled mesogens modified fullerene for efficiently stable bulk heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2012 , 97, 34-42	6.4	13
35	A theoretical investigation into the 1,3-dipolar cycloaddition of azidotrimethylsilane onto nanographene. <i>ChemPhysChem</i> , 2012 , 13, 741-50	3.2	17
34	The reaction mechanisms of boron amidinate and small molecules: a density function theory study. <i>Research on Chemical Intermediates</i> , 2012 , 38, 113-133	2.8	9
33	Oxidation Ability of CO ₂ for the Transformation of Cinnamic Aldehydes to Acids Catalyzed by N-Heterocyclic Carbene: Combining Computational and Experimental Studies. <i>ChemCatChem</i> , 2012 , 4, 1943-1951	5.2	10
32	Tuning the photovoltaic parameters of thiophene-linked donor-acceptor liquid crystalline copolymers for organic photovoltaics. <i>Polymer Chemistry</i> , 2012 , 3, 710	4.9	9
31	FIRST-PRINCIPLES STUDY OF OXYGEN-VACANCY Cu ₂ O (111) SURFACE. <i>Journal of Theoretical and Computational Chemistry</i> , 2012 , 11, 1261-1280	1.8	8
30	The adsorption of CO ₂ , H ₂ CO ₃ , HCO ₃ ⁻ and CO ₃ ²⁻ on Cu ₂ O (111) surface: First-principles study. <i>International Journal of Quantum Chemistry</i> , 2012 , 112, 2532-2540	2.1	25
29	A novel ditopic ligand derived from 8-hydroxyquinoline: Synthesis, characterisation, and its coordination chemistry with selected metal ions. <i>Inorganica Chimica Acta</i> , 2012 , 383, 132-136	2.7	6
28	Synthesis of 1,3-Dihydrobenzo[c]thiophene-imines via Tandem Reactions of o-(1-Alkynyl)benzamides and Lawesson's Reagent. <i>Synthesis</i> , 2012 , 44, 920-926	2.9	11

27	DFT study on activation of carbon dioxide by (tBuArN)3M?N (M=Nb,V,Ta): the electronic structure and activity. <i>Dalton Transactions</i> , 2011 , 40, 3576-83	4.3	14
26	Mesogens Mediated Self-Assembly in Applications of Bulk Heterojunction Solar Cells Based on a Conjugated Polymer with Narrow Band Gap. <i>Macromolecules</i> , 2011 , 44, 2698-2706	5.5	34
25	Density functional theory study the reduction of carbon dioxide by terminal TaH complexes. <i>Computational and Theoretical Chemistry</i> , 2011 , 967, 129-135	2	3
24	A Dft Study of Styrene Polymerization using Neutral (2Z, 4E)-4-(Methylimino)Pent-2-En-2-OL Nickel(II). <i>Progress in Reaction Kinetics and Mechanism</i> , 2011 , 36, 18-26	0.5	
23	Spectroscopic and Molecular Modeling Studies of the Inclusion Complex of TNBAB with Cyclodextrin in Aqueous Solution. <i>Zeitschrift Fur Physikalische Chemie</i> , 2011 , 225, 859-873	3.1	
22	Role of oxygen incorporation in electronic properties of rubrene films. <i>Applied Physics Letters</i> , 2010 , 97, 032106	3.4	22
21	Chiral supramolecular self-assembly of rubrene. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 14682-5	3.6	14
20	Synthesis and characterisation of anthracene-based fluorophore and its interactions with selected metal ions. <i>Inorganica Chimica Acta</i> , 2010 , 363, 2325-2332	2.7	6
19	Physisorption of adenine DNA nucleosides on zigzag and armchair single-walled carbon nanotubes: A first-principles study. <i>Physical Review B</i> , 2009 , 79,	3.3	28
18	Conformation-induced self-assembly of rubrene on Au(111) surface. <i>Applied Physics Letters</i> , 2009 , 95, 093102	3.4	24
17	A DFT study of the enantioselective reduction of prochiral ketones promoted by pinene-derived amino alcohols. <i>Tetrahedron: Asymmetry</i> , 2009 , 20, 1020-1026		24
16	Molecular dynamics study of dipalmitoylphosphatidylcholine lipid layer self-assembly onto a single-walled carbon nanotube. <i>Nano Research</i> , 2009 , 2, 945-954	10	22
15	Theoretical evidence for a two-step mechanism in the functionalization single-walled carbon nanotube by aryl diazonium salts: Comparing effect of different substituent group. <i>Chemical Physics Letters</i> , 2009 , 477, 176-178	2.5	13
14	Selective decomposition of alkyl hydroperoxides on H-type zeolite via a concerted approach. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 1418-22	3.4	6
13	Electronic and steric effects of bis(oxazolinyl)pyridine ligands on asymmetric Diels-Alder reactions. <i>Journal of Molecular Catalysis A</i> , 2008 , 285, 128-131		9
12	A theoretical investigation of the enantioselective reduction of prochiral ketones promoted by chiral diamines. <i>Tetrahedron: Asymmetry</i> , 2008 , 19, 779-787		17
11	The conversion among various B4C clusters: a density functional theoretical study. <i>Journal of Physical Chemistry A</i> , 2007 , 111, 704-9	2.8	24
10	A new mechanism for ethanol oxidation mediated by cytochrome P450 2E1: bulk polarity of the active site makes a difference. <i>ChemBioChem</i> , 2007 , 8, 277-81	3.8	47

9	THE PECULIAR ELECTRONIC STRUCTURE OF THE DI-METALLOCENE: THE EVIDENCE FOR THE STABILITY AND THE CHARACTER OF METAL-METAL BOND. <i>Journal of Theoretical and Computational Chemistry</i> , 2006 , 05, 461-473	1.8	15
8	Density functional theory investigation of product distribution following reaction of acrylonitrile on diamond (001)-2 x 1 surface. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 23395-402	3-4	1
7	Theoretical study of the mechanism of acetaldehyde hydroxylation by compound I of CYP2E1. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 6154-9	3-4	24
6	The molecular structure and vibrational spectra of corrolazine metal complexes (CzM) by density functional theory. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2006 , 64, 795-800	4-4	6
5	Preparation and catalytic use of the solid acid SO ₄ ²⁻ /Fe ₂ O ₃ /MxOy for the reaction of crotonaldehyde with n-butanol. <i>Journal of Molecular Catalysis A</i> , 2006 , 248, 70-75		3
4	Density functional study of the l-proline-catalyzed aminooxylation of aldehydes reaction: The reaction mechanism and selectivity. <i>Structural Chemistry</i> , 2006 , 17, 97-104	1.8	15
3	A DFT study of Diels-Alder reactions of o-quinone methides and various substituted ethenes: selectivity and reaction mechanism. <i>Journal of Organic Chemistry</i> , 2005 , 70, 4910-7	4-2	65
2	A bionic paired hydrogen-bond strategy for extending organic π -conjugation to regulate emission. <i>Journal of Materials Chemistry C</i> ,	7-1	0
1	H-Dimeric Nanospheres of Amphipathic Squaraine Dye with an 81.2% Photothermal Conversion Efficiency for Photothermal Therapy. <i>Advanced Functional Materials</i> , 2113098	15.6	6