

Zhi Cao

List of Publications by Year in descending order

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63
papers

3,179
citations

136740

32
h-index

155451

55
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65
all docs

65
docs citations

65
times ranked

4510
citing authors

#	ARTICLE	IF	CITATIONS
1	A Molecular Surface Functionalization Approach to Tuning Nanoparticle Electrocatalysts for Carbon Dioxide Reduction. <i>Journal of the American Chemical Society</i> , 2016, 138, 8120-8125.	6.6	340
2	A general synthesis approach for supported bimetallic nanoparticles via surface inorganometallic chemistry. <i>Science</i> , 2018, 362, 560-564.	6.0	176
3	Enhanced Electrocatalytic Hydrogen Oxidation on Ni/NiO/C Derived from a Nickel-Based Metal-Organic Framework. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 10644-10649.	7.2	172
4	Iron Porphyrins Embedded into a Supramolecular Porous Organic Cage for Electrochemical CO ₂ Reduction in Water. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 9684-9688.	7.2	149
5	Interfacial Sites between Cobalt Nitride and Cobalt Act as Bifunctional Catalysts for Hydrogen Electrochemistry. <i>ACS Energy Letters</i> , 2019, 4, 1594-1601.	8.8	128
6	Chelating N-Heterocyclic Carbene Ligands Enable Tuning of Electrocatalytic CO ₂ Reduction to Formate and Carbon Monoxide: Surface Organometallic Chemistry. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4981-4985.	7.2	110
7	Tuning Gold Nanoparticles with Chelating Ligands for Highly Efficient Electrocatalytic CO ₂ Reduction. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 12675-12679.	7.2	108
8	Diruthenium-Polyyn-diyl-Diruthenium Wires: Electronic Coupling in the Long Distance Regime. <i>Journal of the American Chemical Society</i> , 2014, 136, 12174-12183.	6.6	103
9	Csp ³ -Csp ³ Bond-Forming Reductive Elimination from Well-Defined Copper(III) Complexes. <i>Journal of the American Chemical Society</i> , 2019, 141, 3153-3159.	6.6	98
10	Hybrid Catalysts for Artificial Photosynthesis: Merging Approaches from Molecular, Materials, and Biological Catalysis. <i>Accounts of Chemical Research</i> , 2020, 53, 575-587.	7.6	93
11	Highly Selective Photocatalytic Valorization of Lignin Model Compounds Using Ultrathin Metal/CdS. <i>ACS Catalysis</i> , 2019, 9, 11341-11349.	5.5	87
12	Photocatalytic Pinacol C-C Coupling and Jet Fuel Precursor Production on ZnIn ₂ S ₄ Nanosheets. <i>ACS Catalysis</i> , 2020, 10, 9346-9355.	5.5	85
13	Tumor-Triggered Controlled Drug Release from Electrospun Fibers Using Inorganic Caps for Inhibiting Cancer Relapse. <i>Small</i> , 2015, 11, 4284-4291.	5.2	79
14	Copper-Catalyzed, Chloroamide-Directed Benzylic C-H Difluoromethylation. <i>Journal of the American Chemical Society</i> , 2019, 141, 19941-19949.	6.6	77
15	Adsorption of ethinylestradiol (EE2) on polyamide 612: Molecular modeling and effects of water chemistry. <i>Water Research</i> , 2013, 47, 2273-2284.	5.3	76
16	Copper-Mediated Trifluoromethylation of Benzylic Csp ³ -H Bonds. <i>Chemistry - A European Journal</i> , 2018, 24, 11559-11563.	1.7	76
17	Supramolecular Porphyrin Cages Assembled at Molecular-Materials Interfaces for Electrocatalytic CO Reduction. <i>ACS Central Science</i> , 2017, 3, 1032-1040.	5.3	65
18	Copper-Catalyzed Decarboxylative Difluoromethylation. <i>Journal of the American Chemical Society</i> , 2019, 141, 11398-11403.	6.6	65

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19	Density functional theory study into the adsorption of CO ₂ , H ₂ and CH ₄ (x=0-3) as well as C ₂ H ₄ on $\hat{1}\pm$ -Mo ₂ C(0001). Surface Science, 2006, 600, 2329-2337.	0.8	54
20	Highly Water-Soluble Monoboronic Acid Probes That Show Optical Sensitivity to Glucose Based on 4-Sulfo-1,8-naphthalic Anhydride. Journal of Organic Chemistry, 2009, 74, 3544-3546.	1.7	50
21	Iron Carbides in Fischer-Tropsch Synthesis: Theoretical and Experimental Understanding in Epsilon-Iron Carbide Phase Assignment. Journal of Physical Chemistry C, 2017, 121, 21390-21396.	1.5	45
22	Iron Porphyrins Embedded into a Supramolecular Porous Organic Cage for Electrochemical CO ₂ Reduction in Water. Angewandte Chemie, 2018, 130, 9832-9836.	1.6	42
23	Chelating N-Heterocyclic Carbene Ligands Enable Tuning of Electrocatalytic CO ₂ Reduction to Formate and Carbon Monoxide: Surface Organometallic Chemistry. Angewandte Chemie, 2018, 130, 5075-5079.	1.6	39
24	Enhanced Electrocatalytic Hydrogen Oxidation on Ni/NiO/C Derived from a Nickel-Based Metal-Organic Framework. Angewandte Chemie, 2019, 131, 10754-10759.	1.6	39
25	Thiophene Adsorption and Activation on MoP(001), $\hat{1}^3$ -Mo ₂ N(100), and Ni ₂ P(001): A Density Functional Theory Studies. Journal of Physical Chemistry B, 2006, 110, 22563-22569.	1.2	38
26	Adsorption of NO, NO ₂ , pyridine and pyrrole on $\hat{1}\pm$ -Mo ₂ C(0001): A DFT study. Surface Science, 2007, 601, 1599-1607.	0.8	36
27	Morphology and Reactivity Evolution of HCP and FCC Ru Nanoparticles under CO Atmosphere. ACS Catalysis, 2019, 9, 2768-2776.	5.5	36
28	Discovery of dual fluorescent 1,8-naphthalimide dyes based on balanced seesaw photophysical model. Chemical Communications, 2009, , 4941.	2.2	35
29	Photoactive Chromium(III)-Cyclam Complexes with Axially Bound <i>geminal</i> -Diethynylethenes. European Journal of Inorganic Chemistry, 2012, 2012, 5616-5620.	1.0	34
30	<i>trans</i> -[Fe(cyclam)(C ₂ R) ₂] ⁺ : A New Family of Iron(III) Bis-Alkynyl Compounds. Organometallics, 2012, 31, 6199-6206.	1.1	34
31	Tuning Gold Nanoparticles with Chelating Ligands for Highly Efficient Electrocatalytic CO ₂ Reduction. Angewandte Chemie, 2018, 130, 12857-12861.	1.6	34
32	Diruthenium(II,III) tetramidates as a new class of oxygenation catalysts. Dalton Transactions, 2012, 41, 644-650.	1.6	32
33	Theoretical exploration of intrinsic facet-dependent CH ₄ and C ₂ formation on Fe ₅ C ₂ particle. Applied Catalysis B: Environmental, 2020, 278, 119308.	10.8	30
34	Diruthenium Compounds Bearing Equatorial Fc-containing Ligands: Synthesis and Electronic Structure. Inorganic Chemistry, 2010, 49, 11525-11531.	1.9	29
35	Electrocatalytic synthesis of heterocycles from biomass-derived furfuryl alcohols. Nature Communications, 2021, 12, 1868.	5.8	28
36	Structure and Energy of Mo ₂ S _x C _y Clusters: A Density Functional Theory Study. Journal of Physical Chemistry B, 2006, 110, 23860-23869.	1.2	26

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37	DFT Study of Electronic Properties of 3d Metal Complexes of <i>ƒ</i> -Geminal Diethynylethenes (<i>gem</i>-DEEs). Organometallics, 2011, 30, 245-250.	1.1	26
38	Diruthenium(III,III) Bis(alkynyl) Compounds with Donor/Acceptor-Substituted geminal-Diethynylethene Ligands. Inorganic Chemistry, 2012, 51, 3261-3269.	1.9	26
39	Frontier molecular orbital analysis of dual fluorescent dyes: predicting two-color emission in N-Aryl -1,8-naphthalimides. Organic and Biomolecular Chemistry, 2010, 8, 3195.	1.5	24
40	<i>tert</i>-Butyl Hydroperoxide Oxygenation of Organic Sulfides Catalyzed by Diruthenium(II,III) Tetracarboxylates. Inorganic Chemistry, 2013, 52, 12545-12552.	1.9	24
41	New Fe(III)(cyclam) Complexes Bearing Axially Bound <i>geminal</i>-Diethynylethenes. Organometallics, 2013, 32, 4684-4689.	1.1	24
42	Microwave Synthesis of Ultrathin Nickel Hydroxide Nanosheets with Iron Incorporation for Electrocatalytic Water Oxidation. ACS Applied Energy Materials, 2019, 2, 1961-1968.	2.5	24
43	New Iron(III) Bis(acetylide) Compounds Based on the Iron Cyclam Motif. Inorganic Chemistry, 2011, 50, 7364-7366.	1.9	23
44	New Linear ƒ-Conjugated Diruthenium Compounds Containing Axial Tetrathiafulvalene-acetylide Ligands. Organometallics, 2012, 31, 8591-8597.	1.1	22
45	Remarkable sorption properties of polyamide 12 microspheres for a broad-spectrum antibacterial (triclosan) in water. Journal of Materials Chemistry A, 2013, 1, 4941.	5.2	22
46	Insight into the structure and energy of Mo₂₇S_xO_y clusters. RSC Advances, 2017, 7, 9513-9520.	1.7	20
47	Carbon Permeation: The Prerequisite Elementary Step in Iron-Catalyzed Fischerâ€™Tropsch Synthesis. Catalysis Letters, 2019, 149, 645-664.	1.4	19
48	Probing the specificity of polyurethane foam as a â€™solid-phase extractantâ€™™: Extractability-governing molecular attributes of lipophilic phenolic compounds. Talanta, 2017, 172, 186-198.	2.9	18
49	Visualization of on-surface ethylene polymerization through ethylene insertion. Science, 2022, 375, 1188-1191.	6.0	18
50	Diruthenium Phenylacetylide Complexes Bearing <i>para</i>-<i>meta</i>-Amino Phenyl Substituents. Organometallics, 2010, 29, 2783-2788.	1.1	16
51	Bimetallic Organometallic Compounds of ƒ-<i>gem</i>-Diethynylethene (<i>gem</i>-DEE) Ligands: <i>trans</i>-Ru₂(DMBA)₄(<i>gem</i>-DEE)₂. Organometallics, 2011, 30, 2075-2078.	1.1	16
52	Defective Ultrathin ZnIn₂S₄ for Photoreductive Deuteration of Carbonyls Using D₂O as the Deuterium Source. Advanced Science, 2022, 9, e2103408.	5.6	15
53	Decorating Diruthenium Compounds with FrÃ©chet Dendrons via the <i>Click</i> Reaction. Inorganic Chemistry, 2011, 50, 9345-9353.	1.9	14
54	Diruthenium(III,III) Ethynyl-phenyleneimine Molecular Wires: Preparation via On-Complex Schiff Base Condensation. Inorganic Chemistry, 2012, 51, 7561-7568.	1.9	14

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55	Isomeric chain structures of $\{[Mn(H_2O)_4]_2Ru_2(CO_3)_4Br_2\}_n$ syntheses, structural diversity and magnetic properties. Dalton Transactions, 2014, 43, 13316-13324.	1.3	11
56	Peroxo-dimolybdate catalyst for the oxygenation of organic sulfides by hydrogen peroxide. Inorganica Chimica Acta, 2015, 437, 103-109.	1.2	11
57	Linear trimers of diruthenium linked by polyynediyl or phenylenediethynyl bridges: A family of unique electronic wires. Polyhedron, 2015, 86, 76-80.	1.0	11
58	Chlorine and temperature directed self-assembly of $Mg@Ru_2(\text{scp}^{\text{ii}}, \text{scp}^{\text{iii}})$ carbonates and particle size dependent magnetic properties. Dalton Transactions, 2016, 45, 2945-2954.	1.6	10
59	New Diruthenium Bis-alkynyl Compounds as Potential Ditopic Linkers. Organometallics, 2013, 32, 6461-6467.	1.1	5
60	Synthesis and characterization of $Ru_2(\text{1-2-DmAniF})_2(\text{1/4-DmAniF})_2(\text{1/4-OAc})(\text{1/4-O})$. Polyhedron, 2016, 103, 126-130.	1.0	5
61	Theme and Variation on N-Aryl-1, 8-Naphthalimides: Minimal Modification to Red-Shifted Fluorescence and Applications in Fluorescent Chemosensors. Reviews in Fluorescence, 2011, , 303-319.	0.5	5
62	Boosting the epoxidation of long-chain linear α -olefins via bimetallic Colr composite. Fuel, 2022, 326, 125050.	3.4	2
63	N-Aryl Arenedicarboximides as Tunable Panchromatic Dyes for Molecular Solar Cells. International Journal of Photoenergy, 2010, 2010, 1-7.	1.4	1