Xiaotai Wang

List of Publications by Year
in descending order

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63 papers	2,664 citations	218677 26 h-index	182427 51 g-index
63 all docs	63 docs citations	63 times ranked	2656 citing authors

#	Article	IF	Citations
1	Unraveling the Mechanism of Palladium-Catalyzed Base-Free Cross-Coupling of Vinyl Carboxylates: Dual Role of Arylboronic Acids as a Reducing Agent and a Coupling Partner. ACS Catalysis, 2022, 12, 1809-1817.	11.2	3
2	Enantioselective Hydroxylation of Dihydrosilanes to Siâ€Chiral Silanols Catalyzed by In Situ Generated Copper(II) Species. Angewandte Chemie - International Edition, 2022, 61, .	13.8	19
3	Building an emission library of donorâ€“acceptorâ€“donor type linker-based luminescent metalâ€“organic frameworks. Chemical Science, 2022, 13, 8036-8044.	7.4	15
4	Preparation of Î±-amino acids via Ni-catalyzed reductive vinylation and arylation of Î±-pivaloyloxy glycine. Chemical Science, 2021, 12, 220-226.	7.4	15
5	Mechanistic insights into Ni-catalyzed hydrogen atom transfer (HAT)-triggered hydrodefluorination of CF3-substituted alkenes. Dalton Transactions, 2021, 50, 9026-9030.	3.3	1
6	Mechanism of nickel-catalyzed direct carbonyl-Heck coupling reaction: the crucial role of second-sphere interactions. Dalton Transactions, 2021, 50, 2654-2662.	3.3	10
7	Mechanistic Insights into Formation of All-Carbon Quaternary Centers via Scandium-Catalyzed Câ€“H Alkylation of Imidazoles with 1,1-Disubstituted Alkenes. Journal of Organic Chemistry, 2021, 86, 4598-4606.	3.2	7
8	Understanding Methyl Salicylate Hydrolysis in the Presence of Amino Acids. Journal of Agricultural and Food Chemistry, 2021, 69, 6013-6021.	5.2	2
9	Linker Engineering toward Full-Color Emission of UiO-68 Type Metalâ€“Organic Frameworks. Journal of the American Chemical Society, 2021, 143, 10547-10552.	13.7	54
10	Activation of Aryl Carboxylic Acids by Diboron Reagents towards Nickelâ€Catalyzed Direct Decarbonylative Borylation. Angewandte Chemie, 2021, 133, 24715.	2.0	0
11	Tuning and Directing Energy Transfer in the Whole Visible Spectrum through Linker Installation in Metalâ€“Organic Frameworks. Angewandte Chemie, 2021, 133, 25252-25258.	2.0	5
12	Tuning and Directing Energy Transfer in the Whole Visible Spectrum through Linker Installation in Metalâ€“Organic Frameworks. Angewandte Chemie - International Edition, 2021, 60, 25048-25054.	13.8	39
13	Frontispiece: Activation of Aryl Carboxylic Acids by Diboron Reagents towards Nickelâ€Catalyzed Direct Decarbonylative Borylation. Angewandte Chemie - International Edition, 2021, 60, .	13.8	0
14	Carbon Dioxide Capture by Amino Acids through an Arginineâ€“Arginine Carbamate Ion Pair. Industrial & Engineering Chemistry Research, 2021, 60, 17745-17749.	3.7	5
15	Mechanism of Câ€“P bond formation via Pd-catalyzed decarbonylative phosphorylation of amides: insight into the chemistry of the second coordination sphere. Chemical Communications, 2020, 56, 113-116.	4.1	7
16	Mechanism of Cobalt-Catalyzed Direct Aminocarbonylation of Unactivated Alkyl Electrophiles: Outer-Sphere Amine Substitution To Form Amide Bond. ACS Catalysis, 2020, 10, 1520-1527.	11.2	18
17	Mechanistic Insights into Hydroformylation Catalyzed by Cationic Cobalt(II) Complexes: In Silico Modification of the Catalyst System. ACS Catalysis, 2020, 10, 13551-13559.	11.2	8
18	Radical Dehydroxylative Alkylation of Tertiary Alcohols by Ti Catalysis. Journal of the American Chemical Society, 2020, 142, 16787-16794.	13.7	91

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19	Neutral nano-polygons with ultrashort Beâ€“Be distances. Dalton Transactions, 2019, 48, 15802-15809.	3.3	7
20	Mechanism of the Palladium-Catalyzed C(sp³)â€“H Arylation of Aliphatic Amines: Unraveling the Crucial Role of Silver(I) Additives. ACS Catalysis, 2019, 9, 6672-6680.	11.2	38
21	Computational design of species with ultrashort Beâ€“Be distances using planar hexacoordinate carbon structures as the templates. Dalton Transactions, 2019, 48, 6581-6587.	3.3	7
22	Stabilization of beryllium-containing planar pentacoordinate carbon species through attaching hydrogen atoms. RSC Advances, 2018, 8, 36521-36526.	3.6	20
23	Ni-Catalyzed Reductive Coupling of Electron-Rich Aryl Iodides with Tertiary Alkyl Halides. Journal of the American Chemical Society, 2018, 140, 14490-14497.	13.7	177
24	Simulating the effect of a triple bond to achieve the shortest main group metalâ€“metal distance in diberyllium complexes: a computational study. Dalton Transactions, 2018, 47, 14462-14467.	3.3	9
25	How Does Palladiumâ€“Amino Acid Cooperative Catalysis Enable Regio- and Stereoselective C(sp³)â€“H Functionalization in Aldehydes and Ketones? A DFT Mechanistic Study. ACS Catalysis, 2018, 8, 7698-7709.	11.2	38
26	Enantioselective Tandem Cyclization of Alkyneâ€Tethered Indoles Using Cooperative Silver(I)/Chiral Phosphoric Acid Catalysis. Angewandte Chemie, 2017, 129, 12374-12377.	2.0	12
27	Enantioselective Tandem Cyclization of Alkyneâ€Tethered Indoles Using Cooperative Silver(I)/Chiral Phosphoric Acid Catalysis. Angewandte Chemie - International Edition, 2017, 56, 12206-12209.	13.8	43
28	Aluminum(<scp>i</scp>) Î²-diketiminato complexes activate C(sp²)â€“F and C(sp³)â€“F bonds by different oxidative addition mechanisms: a DFT study. Chemical Communications, 2017, 53, 8196-8198.	4.1	15
29	How Does an Earth-Abundant Copper-Based Catalyst Achieve Anti-Markovnikov Hydrobromination of Alkynes? A DFT Mechanistic Study. Organometallics, 2016, 35, 1923-1930.	2.3	16
30	Ultrashort Berylliumâˆ’Beryllium Distances Rivalling Those of Metalâˆ’Metal Quintuple Bonds Between Transition Metals. Angewandte Chemie, 2016, 128, 15880-15884.	2.0	9
31	Ultrashort Berylliumâˆ’Beryllium Distances Rivalling Those of Metalâˆ’Metal Quintuple Bonds Between Transition Metals. Angewandte Chemie - International Edition, 2016, 55, 15651-15655.	13.8	36
32	Computational design of organometallic oligomers featuring 1,3â€metalâ€carbon bonding and planar tetracoordinate carbon atoms. Journal of Computational Chemistry, 2016, 37, 296-303.	3.3	4
33	N-heterocyclic carbene-stabilized homoatomic lithium(0) complexes with a lithiumâ€“lithium covalent bond: A theoretical design and characterization. Inorganic Chemistry Communication, 2016, 63, 61-64.	3.9	3
34	The degree of Ï€ electron delocalization and the formation of 3D-extensible sandwich structures. Physical Chemistry Chemical Physics, 2016, 18, 11942-11950.	2.8	3
35	CBe₅H_n^{^{nâ€“4}} (n = 2â€“5): Hydrogen-Stabilized CBe₅ Pentagons Containing Planar or Quasi-Planar Pentacoordinate Carbons. Journal of Physical Chemistry A, 2015, 119, 13101-13106.	2.5	48
36	The Mechanism of a Ligand-Promoted C(sp³)â€“H Activation and Arylation Reaction via Palladium Catalysis: Theoretical Demonstration of a Pd(II)/Pd(IV) Redox Manifold. Journal of the American Chemical Society, 2015, 137, 2006-2014.	13.7	106

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37	Mechanism of Z-Selective Olefin Metathesis Catalyzed by a Ruthenium Monothiolate Carbene Complex: A DFT Study. Organometallics, 2014, 33, 4290-4294.	2.3	20
38	A Computational Mechanistic Study of an Unprecedented Heck-Type Relay Reaction: Insight into the Origins of Regio- and Enantioselectivities. Journal of the American Chemical Society, 2014, 136, 986-998.	13.7	118
39	Mechanism and Origins of Z Selectivity of the Catalytic Hydroalkoxylation of Alkynes via Rhodium Vinylidene Complexes To Produce Enol Ethers. Organometallics, 2013, 32, 2804-2813.	2.3	26
40	Alkaline earth metalâ€“organic frameworks supported by ditopic carboxylates. Journal of Coordination Chemistry, 2013, 66, 826-835.	2.2	11
41	Computational Insight into the Mechanism of Selective Imine Formation from Alcohol and Amine Catalyzed by the Ruthenium(II)â€PNP Pincer Complex. European Journal of Inorganic Chemistry, 2012, 2012, 5011-5020.	2.0	79
42	Does the Ruthenium Nitrato Catalyst Work Differently in Z-Selective Olefin Metathesis? A DFT Study. Organometallics, 2012, 31, 8654-8657.	2.3	52
43	A Thorough DFT Study of the Mechanism of Homodimerization of Terminal Olefins through Metathesis with a Chelated Ruthenium Catalyst: From Initiation to Z Selectivity to Regeneration. Organometallics, 2012, 31, 7222-7234.	2.3	58
44	Computational Study on the Catalytic Role of Pincer Ruthenium(II)-PNN Complex in Directly Synthesizing Amide from Alcohol and Amine: The Origin of Selectivity of Amide over Ester and Imine. Organometallics, 2011, 30, 5233-5247.	2.3	149
45	Three-component reactions leading to 2D and 3D metalâ€“organic frameworks assembled on dinickel-carboxylate secondary building units. Polyhedron, 2011, 30, 47-52.	2.2	8
46	3D Lanthanideâ€“organic coordination polymers built upon infinite 1D secondary building units. Polyhedron, 2008, 27, 3439-3442.	2.2	6
47	1-D Infinite Array of Metalloporphyrin Cages. Inorganic Chemistry, 2004, 43, 6878-6880.	4.0	36
48	Porous Lanthanide-Organic Frameworks:Â Synthesis, Characterization, and Unprecedented Gas Adsorption Properties. Journal of the American Chemical Society, 2003, 125, 3062-3067.	13.7	602
49	Self-assembly of one-dimensional coordination polymers from M(II) salts (M=Co, Cd) and flexible ligand 1,3-bis(4-pyridyl)propane. Inorganica Chimica Acta, 2002, 333, 152-154.	2.4	33
50	Novel silver(i)â€“organic coordination polymers: conversion of extended structures in the solid state as driven by argentophilic interactions. Chemical Communications, 2001, , 1762-1763.	4.1	130
51	A New Porous Three-Dimensional Lanthanide Coordination Polymer. Inorganic Chemistry, 2000, 39, 4174-4178.	4.0	171
52	Self-assembly of free-base tetrapyridylporphyrin units by metal ion coordination. Chemical Communications, 1999, , 157-158.	4.1	39
53	Isomerization of olefin carboxylic esters catalyzed by nickel and palladium compounds. Journal of Molecular Catalysis A, 1998, 130, 171-176.	4.8	20
54	Facile Syntheses of Titanium(II), Tin(II), and Vanadium(II) Porphyrin Complexes through Homogeneous Reduction. Reactivity oftrans-(TTP)TiL2(L = THF,t-BuNC). Inorganic Chemistry, 1998, 37, 5-9.	4.0	26

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55	Titanium(II) Porphyrin Complexes:â€‰ Versatile One- and Two-Electron Reducing Agents. Reduction of Organic Chlorides, Epoxides, and Sulfoxides. Journal of Organic Chemistry, 1998, 63, 356-360.	3.2	26
56	Decamethylnickelocenium hydrogen-7,7,8,8-tetracyanoperfluoro-p-quinodimethandiide: isolation of the protonated weak base [HTCNQF4]?. Chemical Communications, 1996, , 1979.	4.1	13
57	Organotransition-Metal Metallacarboranes. 41. Synthesis and Structure of B-B- and Cp*-Cp*-Linked Cobaltacarborane Clusters. Organometallics, 1995, 14, 4668-4675.	2.3	28
58	Organotransition-Metal Metallacarboranes. 42. Synthesis and Cluster Fusion of Iron-Centered Tetradecker Sandwiches. Inorganic Chemistry, 1995, 34, 6509-6513.	4.0	10
59	Organotransition-Metal Metallacarboranes. 44. Construction of Pentadecker and Hexadecker Sandwiches from Triple-Decker Building Blocks. Journal of the American Chemical Society, 1995, 117, 12218-12226.	13.7	22
60	Organotransition-Metal Metallacarboranes. 43. Directed Synthesis of Carborane-End-Capped Multidecker Sandwiches. Journal of the American Chemical Society, 1995, 117, 12227-12234.	13.7	48
61	Organotransition-metal metallacarboranes. 34. Synthesis and structure of a hexadecker sandwich. Journal of the American Chemical Society, 1994, 116, 2687-2688.	13.7	22
62	Carbon-rich metallacarboranes. 15. Novel metal-promoted cluster fusion reactions. Inorganic Chemistry, 1993, 32, 2156-2163.	4.0	18
63	Enantioselective Hydroxylation of Dihydrosilanes to Siâ€Chiral Silanols Catalyzed by In Situ Generated Copper(II) Species. Angewandte Chemie, 0, , .	2.0	3