Matthew D Wodrich

List of Publications by Year
in descending order

76	4,347	87888 38	106344 65
papers	citations	h-index	g-index

84	84	84	4321
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mapping Catalystâ€Solvent Interplay in Competing Carboamination/Cyclopropanation Reactions. Chemistry - A European Journal, 2022, , .	3.3	1
2	The (not so) simple prediction of enantioselectivity â€“ a pipeline for high-fidelity computations. Chemical Science, 2022, 13, 6858-6864.	7.4	6
3	Lowâ€Temperature Intramolecular [4+2] Cycloaddition of Allenes with Arenes for the Synthesis of Diene Ligands. Angewandte Chemie - International Edition, 2021, 60, 5475-5481.	13.8	18
4	Lowâ€Temperature Intramolecular [4+2] Cycloaddition of Allenes with Arenes for the Synthesis of Diene Ligands. Angewandte Chemie, 2021, 133, 5535-5541.	2.0	6
5	The Genesis of Molecular Volcano Plots. Accounts of Chemical Research, 2021, 54, 1107-1117.	15.6	54
6	Diversifying Metalâ€“Ligand Cooperative Catalysis in Semiâ€Synthetic [Mn]â€Hydrogenases. Angewandte Chemie, 2021, 133, 13462-13469.	2.0	0
7	Diversifying Metalâ€“Ligand Cooperative Catalysis in Semiâ€Synthetic [Mn]â€Hydrogenases. Angewandte Chemie - International Edition, 2021, 60, 13350-13357.	13.8	11
8	Structure and Reactivity of Nâ€Heterocyclic Alkynyl Hypervalent Iodine Reagents. Chemistry - A European Journal, 2021, 27, 10979-10986.	3.3	11
9	Methoxycyclization of 1,5â€Enynes by Coinage Metal Catalysts: Is Gold Always Superior?. Helvetica Chimica Acta, 2021, 104, e2100134.	1.6	2
10	Reaction-based machine learning representations for predicting the enantioselectivity of organocatalysts. Chemical Science, 2021, 12, 6879-6889.	7.4	54
11	Data-powered augmented volcano plots for homogeneous catalysis. Chemical Science, 2020, 11, 12070-12080.	7.4	23
12	Probing Substrate Scope with Molecular Volcanoes. Organic Letters, 2020, 22, 7936-7941.	4.6	12
13	Data-Driven Advancement of Homogeneous Nickel Catalyst Activity for Aryl Ether Cleavage. ACS Catalysis, 2020, 10, 7021-7031.	11.2	40
14	Functional Models of the Nickel Pincer Nucleotide Cofactor of Lactate Racemase. Angewandte Chemie - International Edition, 2019, 58, 16869-16872.	13.8	12
15	Functional Models of the Nickel Pincer Nucleotide Cofactor of Lactate Racemase. Angewandte Chemie, 2019, 131, 17025-17028.	2.0	0
16	Stereoselective synthesis of alkyl-, aryl-, vinyl- and alkynyl-substituted Z-enamides and enol ethers. Chemical Science, 2019, 10, 3223-3230.	7.4	58
17	The atomic-resolution crystal structure of activated [Fe]-hydrogenase. Nature Catalysis, 2019, 2, 537-543.	34.4	54
18	A catalytically active [Mn]-hydrogenase incorporating a non-native metal cofactor. Nature Chemistry, 2019, 11, 669-675.	13.6	55

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19	Activity-Based Screening of Homogeneous Catalysts through the Rapid Assessment of Theoretically Derived Turnover Frequencies. ACS Catalysis, 2019, 9, 5716-5725.	11.2	48
20	Data Mining the Câ^'C Crossâ€Coupling Genome. ChemCatChem, 2019, 11, 4096-4107.	3.7	15
21	Mild complexation protocol for chiral Cp^xRh and Ir complexes suitable for in situ catalysis. Chemical Science, 2019, 10, 781-787.	7.4	82
22	Natural inspirations for metalâ€"ligand cooperative catalysis. Nature Reviews Chemistry, 2018, 2, .	30.2	104
23	Improving the Thermodynamic Profiles of Prospective Suzukiâ€"Miyaura Crossâ€Coupling Catalysts by Altering the Electrophilic Coupling Component. ChemCatChem, 2018, 10, 1592-1597.	3.7	21
24	On the Generality of Molecular Volcano Plots. ChemCatChem, 2018, 10, 1586-1591.	3.7	29
25	Unraveling Metal/Pincer Ligand Effects in the Catalytic Hydrogenation of Carbon Dioxide to Formate. Organometallics, 2018, 37, 4568-4575.	2.3	32
26	Axially Chiral Dibenzazepinones by a Palladium(0)â€Catalyzed Atropoâ€enantioselective Câ^'H Arylation. Angewandte Chemie - International Edition, 2018, 57, 11040-11044.	13.8	123
27	Expedited Screening of Active and Regioselective Catalysts for the Hydroformylation Reaction. Helvetica Chimica Acta, 2018, 101, e1800107.	1.6	19
28	A Monometallic Iron(I) Organoferrate. Organometallics, 2017, 36, 499-501.	2.3	20
29	Nickel pincer model of the active site of lactate racemase involves ligand participation in hydride transfer. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1242-1245.	7.1	39
30	Room temperature decarboxylative cyanation of carboxylic acids using photoredox catalysis and cyanobenziodoxolones: a divergent mechanism compared to alkynylation. Chemical Science, 2017, 8, 1790-1800.	7.4	146
31	Oneâ€Step Multigramâ€Scale Biomimetic Synthesis of Psiguadialâ€...B. Angewandte Chemie, 2017, 129, 13964-13968.	2.0	4
32	A Î²-Carbon elimination strategy for convenient in situ access to cyclopentadienyl metal complexes. Chemical Science, 2017, 8, 7174-7179.	7.4	53
33	Oneâ€Step Multigramâ€Scale Biomimetic Synthesis of Psiguadialâ€...B. Angewandte Chemie - International Edition, 2017, 56, 13776-13780.	13.8	36
34	A Generalized Picture of Câ€"C Cross-Coupling. ACS Catalysis, 2017, 7, 5643-5653.	11.2	68
35	Neutral Aminyl Radicals Derived from Azoimidazolium Dyes. Journal of the American Chemical Society, 2016, 138, 15126-15129.	13.7	40
36	Accessing and predicting the kinetic profiles of homogeneous catalysts from volcano plots. Chemical Science, 2016, 7, 5723-5735.	7.4	65

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37	Alkynylation of Thiols with Ethynylbenziodoxolone (EBX) Reagents: Î±- or Î²- Ï€-Addition?. Organic Letters, 2016, 18, 60-63.	4.6	52
38	Beyond static structures: Putting forth REMD as a tool to solve problems in computational organic chemistry. Journal of Computational Chemistry, 2016, 37, 83-92.	3.3	27
39	A Functional Model of [Fe]-Hydrogenase. Journal of the American Chemical Society, 2016, 138, 3270-3273.	13.7	66
40	Toward Functional Typeâ€…III [Fe]â€Hydrogenase Biomimics for H₂ Activation: Insights from Computation. Chemistry - A European Journal, 2015, 21, 3987-3996.	3.3	20
41	Iron Pincer Complexes as Catalysts and Intermediates in Alkylâ€“Aryl Kumada Coupling Reactions. Organometallics, 2015, 34, 289-298.	2.3	54
42	General and Practical Formation of Thiocyanates from Thiols. Chemistry - A European Journal, 2015, 21, 2662-2668.	3.3	82
43	Reconstitution of [Fe]-hydrogenase using model complexes. Nature Chemistry, 2015, 7, 995-1002.	13.6	92
44	Linear scaling relationships and volcano plots in homogeneous catalysis â€“ revisiting the Suzuki reaction. Chemical Science, 2015, 6, 6754-6761.	7.4	98
45	Fast and Highly Chemoselective Alkynylation of Thiols with Hypervalent Iodine Reagents Enabled through a Low Energy Barrier Concerted Mechanism. Journal of the American Chemical Society, 2014, 136, 16563-16573.	13.7	191
46	On the Viability of Heterolytic Peptide Nâ€“CÎ± Bond Cleavage in Electron Capture and Transfer Dissociation Mass Spectrometry. Journal of Physical Chemistry B, 2014, 118, 2985-2992.	2.6	8
47	Bimetallic Oxidative Addition in Nickel-Catalyzed Alkylâ€“Aryl Kumada Coupling Reactions. Organometallics, 2014, 33, 5708-5715.	2.3	64
48	Ping-Pong Protons: How Hydrogen-Bonding Networks Facilitate Heterolytic Bond Cleavage in Peptide Radical Cations. Journal of Physical Chemistry B, 2014, 118, 2628-2637.	2.6	7
49	Ligandâ€Controlled Regiodivergent Pathways of Rhodium(III)â€Catalyzed Dihydroisoquinolone Synthesis: Experimental and Computational Studies of Different Cyclopentadienyl Ligands. Chemistry - A European Journal, 2014, 20, 15409-15418.	3.3	120
50	Bimetallic Oxidative Addition Involving Radical Intermediates in Nickel-Catalyzed Alkylâ€“Alkyl Kumada Coupling Reactions. Journal of the American Chemical Society, 2013, 135, 12004-12012.	13.7	227
51	Electronic Elements Governing the Binding of Small Molecules to a [Fe]-Hydrogenase Mimic. European Journal of Inorganic Chemistry, 2013, 2013, 3993-3999.	2.0	7
52	Principles of electron capture and transfer dissociation mass spectrometry applied to peptide and protein structure analysis. Chemical Society Reviews, 2013, 42, 5014.	38.1	175
53	Covalent Capture of Nitrous Oxide by Nâ€Heterocyclic Carbenes. Angewandte Chemie - International Edition, 2012, 51, 232-234.	13.8	84
54	Structureâ€“Correlation Principles Connecting Ground State Properties and Reaction Barrier Heights for the Cope Rearrangement of Semibullvalenes. Journal of Organic Chemistry, 2012, 77, 2548-2552.	3.2	8

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55	Accurate Thermochemistry of Hydrocarbon Radicals via an Extended Generalized Bond Separation Reaction Scheme. Journal of Physical Chemistry A, 2012, 116, 3436-3447.	2.5	33
56	Heterolytic Nâ€“CÎ± Bond Cleavage in Electron Capture and Transfer Dissociation of Peptide Cations. Journal of Physical Chemistry B, 2012, 116, 10807-10815.	2.6	19
57	Reply to â€œComment on â€˜Accurate Thermochemistry of Hydrocarbon Radicals via an Extended Generalized Bond Separation Reaction Schemeâ€™â€•. Journal of Physical Chemistry A, 2012, 116, 8794-8796.	2.5	6
58	Sequential Nâ€“O and Nâ€“N Bond Cleavage of N-Heterocyclic Carbene-Activated Nitrous Oxide with a Vanadium Complex. Journal of the American Chemical Society, 2012, 134, 1471-1473.	13.7	44
59	Quantification of â€œfuzzyâ€•chemical concepts: a computational perspective. Chemical Society Reviews, 2012, 41, 4671.	38.1	108
60	On the Advantages of Hydrocarbon Radical Stabilization Energies Based on Rî”H Bond Dissociation Energies. Journal of Organic Chemistry, 2011, 76, 2439-2447.	3.2	23
61	Overcoming systematic DFT errors for hydrocarbon reaction energies. Theoretical Chemistry Accounts, 2010, 127, 429-442.	1.4	51
62	Branched Alkanes Have Contrasting Stabilities. Organic Letters, 2010, 12, 3070-3073.	4.6	34
63	How Strained are Carbomeric-Cycloalkanes?. Journal of Physical Chemistry A, 2010, 114, 6705-6712.	2.5	22
64	1,1â€²-Bi(trishomobarrelenyl) - Synthesis and Chiroptic Properties. European Journal of Organic Chemistry, 2009, 2009, 1048-1052.	2.4	2
65	What governs nitrogen configuration in substituted aminophosphines?. Journal of Physical Organic Chemistry, 2009, 22, 101-109.	1.9	8
66	Reaction Enthalpies Using the Neural-Network-Based X1 Approach: The Important Choice of Input Descriptors. Journal of Physical Chemistry A, 2009, 113, 3285-3290.	2.5	19
67	Empirical Corrections to Density Functional Theory Highlight the Importance of Nonbonded Intramolecular Interactions in Alkanes. Journal of Physical Chemistry A, 2008, 112, 11495-11500.	2.5	48
68	Effects of halogen substitution on the properties of eight- and nine-vertex closo-boranes. Dalton Transactions, 2008, , 1745.	3.3	15
69	How Accurate Are DFT Treatments of Organic Energies?. Organic Letters, 2007, 9, 1851-1854.	4.6	260
70	Double Aromaticity in Monocyclic Carbon, Boron, and Borocarbon Rings Based on Magnetic Criteria. Chemistry - A European Journal, 2007, 13, 4582-4593.	3.3	60
71	The Concept of Protobranching and Its Many Paradigm Shifting Implications for Energy Evaluations. Chemistry - A European Journal, 2007, 13, 7731-7744.	3.3	185
72	New Additivity Schemes for Hydrocarbon Energies. Organic Letters, 2006, 8, 2135-2138.	4.6	45

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73	Systematic Errors in Computed Alkane Energies Using B3LYP and Other Popular DFT Functionals. Organic Letters, 2006, 8, 3631-3634.	4.6	393
74	Evidence for d Orbital Aromaticity in Square Planar Coinage Metal Clusters.. ChemInform, 2005, 36, no.	0.0	0
75	Evidence for d Orbital Aromaticity in Square Planar Coinage Metal Clusters. Journal of the American Chemical Society, 2005, 127, 5701-5705.	13.7	143
76	How Large Is the Conjugative Stabilization of Diynes?. Journal of the American Chemical Society, 2004, 126, 15036-15037.	13.7	85