Rory Waterman

List of Publications by Year
in descending order

99 papers	4,029 citations	117571 34 h-index	123376 61 g-index
122 all docs	122 docs citations	122 times ranked	2824 citing authors

#	Article	IF	Citations
1	Synthetic Development and Chemical Reactivity of Transition-Metal Silylene Complexes. Accounts of Chemical Research, 2007, 40, 712-719.	7.6	322
2	Ïƒ-Bond Metathesis: A 30-Year Retrospective. Organometallics, 2013, 32, 7249-7263.	1.1	243
3	Metal-phosphido and -phosphinidene complexes in Pâ€“E bond-forming reactions. Dalton Transactions, 2009, , 18-26.	1.6	200
4	Group Transfer from Nickel Imido, Phosphinidene, and Carbene Complexes to Ethylene with Formation of Aziridine, Phosphirane, and Cyclopropane Products. Journal of the American Chemical Society, 2003, 125, 13350-13351.	6.6	164
5	Mechanisms of metal-catalyzed dehydrocoupling reactions. Chemical Society Reviews, 2013, 42, 5629.	18.7	158
6	Monomeric Phosphido and Phosphinidene Complexes of Nickel. Journal of the American Chemical Society, 2002, 124, 3846-3847.	6.6	151
7	Hydrogen-Substituted Osmium Silylene Complexes:Â Effect of Charge Localization on Catalytic Hydrosilation. Journal of the American Chemical Society, 2006, 128, 428-429.	6.6	128
8	Challenges in Catalytic Hydrophosphination. Chemistry - A European Journal, 2016, 22, 12598-12605.	1.7	126
9	Group-Transfer Reactions of Nickelâˆ'Carbene and âˆ'Nitrene Complexes with Organoazides and Nitrous Oxide that Form New Câ•N, Câ•O, and Nâ•N Bonds. Journal of the American Chemical Society, 2009, 131, 12872-12873.	6.6	120
10	Î·²-Organoazide Complexes of Nickel and Their Conversion to Terminal Imido Complexes <i>via</i> Dinitrogen Extrusion. Journal of the American Chemical Society, 2008, 130, 12628-12629.	6.6	105
11	Selective Dehydrocoupling of Phosphines by Triamidoamine Zirconium Catalysts. Organometallics, 2007, 26, 2492-2494.	1.1	89
12	Synthesis of 1,2-bis(di-tert-butylphosphino)ethane (dtbpe) complexes of nickel: radical coupling and reduction reactions promoted by the nickel(I) dimer [(dtbpe)NiCl]2. Inorganica Chimica Acta, 2003, 345, 299-308.	1.2	83
13	Intermolecular Zirconium-Catalyzed Hydrophosphination of Alkenes and Dienes with Primary Phosphines. Journal of the American Chemical Society, 2014, 136, 9240-9243.	6.6	80
14	Î²-Phosphinoethylboranes as Ambiphilic Ligands in Nickelâˆ'Methyl Complexes. Organometallics, 2008, 27, 1135-1139.	1.1	76
15	Insertion Reactions and Catalytic Hydrophosphination by Triamidoamine-Supported Zirconium Complexes. Organometallics, 2010, 29, 2557-2565.	1.1	75
16	Dehydrogenative Bond-Forming Catalysis Involving Phosphines. Current Organic Chemistry, 2008, 12, 1322-1339.	0.9	70
17	Synthesis, Structure, and Reactivity of Neutral Hydrogen-Substituted Ruthenium Silylene and Germylene Complexes. Organometallics, 2009, 28, 5082-5089.	1.1	70
18	Formation of Phosphirenes by Phosphinidene Group-Transfer Reactions from (dtbpe)NiP(dmp) to Alkynes. Organometallics, 2003, 22, 5182-5184.	1.1	64

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19	Catalytic Antimonyâ€“Antimony Bond Formation through Stibinidene Elimination from Zirconocene and Hafnocene Complexes. Angewandte Chemie - International Edition, 2006, 45, 2926-2929.	7.2	64
20	A Hydrogen-Substituted Osmium Stannylene Complex: Isomerization to a Metallostannylene Complex via an Unusual Î±-Hydrogen Migration from Tin to Osmium. Journal of the American Chemical Society, 2009, 131, 4606-4607.	6.6	64
21	Zirconium-Catalyzed Heterodehydrocoupling of Primary Phosphines with Silanes and Germanes. Inorganic Chemistry, 2007, 46, 6855-6857.	1.9	58
22	Mechanistic variety in zirconium-catalyzed bond-forming reaction of arsines. Dalton Transactions, 2008, , 4488.	1.6	54
23	Phenylsilane as a safe, versatile alternative to hydrogen for the synthesis of actinide hydrides. Chemical Communications, 2015, 51, 17379-17381.	2.2	52
24	Carbonâ€“Hydrogen Bond Activation, Câ€“N Bond Coupling, and Cycloaddition Reactivity of a Three-Coordinate Nickel Complex Featuring a Terminal Imido Ligand. Inorganic Chemistry, 2014, 53, 13227-13238.	1.9	51
25	Cobalt-catalyzed ammonia borane dehydrocoupling and transfer hydrogenation under aerobic conditions. Dalton Transactions, 2015, 44, 12074-12077.	1.6	51
26	Zirconium-Catalyzed Amine Borane Dehydrocoupling and Transfer Hydrogenation. Organometallics, 2015, 34, 4693-4699.	1.1	46
27	Tuning the Oxidation State, Nuclearity, and Chemistry of Uranium Hydrides with Phenylsilane and Temperature: The Case of the Classic Uranium(III) Hydride Complex [(C₅Me₅)₂U(Î¼-H)]₂. Organometallics, 2016, 35, 617-620.	1.1	44
28	Actinide 2-metallabiphenylenes that satisfy HÃ¼ckelâ€™s rule. Nature, 2020, 578, 563-567.	13.7	43
29	Synthesis, structure, and reactions of a nitroxyl complex of iridium(iii), cis,trans-IrHCl2(NHî€O)(PPh3)2. Chemical Communications, 2002, , 660-661.	2.2	38
30	Cottrell Scholars Collaborative New Faculty Workshop: Professional Development for New Chemistry Faculty and Initial Assessment of Its Efficacy. Journal of Chemical Education, 2014, 91, 1874-1881.	1.1	38
31	A New Route to Coordination Complexes of Nitroxyl (HNO) via Insertion Reactions of Nitrosonium Triflate with Transition-Metal Hydrides. Journal of the American Chemical Society, 2002, 124, 12068-12069.	6.6	37
32	General Preparation of (N₃N)ZrX (N₃N =) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Td (N(CH₂C Hydride Surrogate. Organometallics, 2009, 28, 573-581.	1.1	37
33	Iridium Pincer Catalysts for Silane Dehydrocoupling: Ligand Effects on Selectivity and Activity. Organometallics, 2015, 34, 3865-3872.	1.1	37
34	Throwing Away the Cookbook: Implementing Course-Based Undergraduate Research Experiences (CUREs) in Chemistry. ACS Symposium Series, 2017, , 33-63.	0.5	37
35	Zirconium-Catalyzed Intermolecular Double Hydrophosphination of Alkynes with a Primary Phosphine. ACS Catalysis, 2016, 6, 6413-6416.	5.5	36
36	An Inorganic Chemistry Laboratory Course as Research. Journal of Chemical Education, 2018, 95, 1520-1525.	1.1	36

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37	Terminal hafnium phosphinidene complexes and phosphinidene ligand exchange. Chemical Science, 2011, 2, 1320.	3.7	35
38	Synthesis and structure of a terminal dinitrogen complex of nickel. Canadian Journal of Chemistry, 2005, 83, 328-331.	0.6	32
39	Exploration of tin-catalyzed phosphine dehydrocoupling: Catalyst effects and observation of tin-catalyzed hydrophosphination. Inorganica Chimica Acta, 2014, 422, 141-145.	1.2	30
40	Light-Driven, Zirconium-Catalyzed Hydrophosphination with Primary Phosphines. ACS Catalysis, 2018, 8, 6230-6238.	5.5	30
41	Insertion of benzyl isocyanide into a Zrâ€“P bond and rearrangement. Atom-economical synthesis of a phosphaalkene. Chemical Communications, 2007, , 4172.	2.2	29
42	Synthesis, X-ray characterization, DFT calculations and Hirshfeld surface analysis of Zn(<scp>ii</scp>) and Cd(<scp>ii</scp>) complexes based on isonicotinoylhydrazone ligand. CrystEngComm, 2016, 18, 4587-4596.	1.3	27
43	Synthesis and characterization of a new and electronically unusual uranium metallacyclocumulene, (C5Me5)2U(Î·4-1,2,3,4-PhC4Ph). Journal of Organometallic Chemistry, 2017, 829, 79-84.	0.8	27
44	Visible-light and thermal driven double hydrophosphination of terminal alkynes using a commercially available iron compound. Chemical Communications, 2018, 54, 2774-2776.	2.2	26
45	Zirconium-catalyzed intermolecular hydrophosphination using a chiral, air-stable primary phosphine. Dalton Transactions, 2016, 45, 1863-1867.	1.6	25
46	Visible Light Photocatalysis Using a Commercially Available Iron Compound. Organometallics, 2017, 36, 3891-3895.	1.1	24
47	Triamidoamine-supported zirconium complexes in the catalytic dehydrocoupling of 1,2-bisphosphinobenzene and -ethane. Polyhedron, 2010, 29, 42-45.	1.0	23
48	Tin-catalyzed hydrophosphination of alkenes. Dalton Transactions, 2016, 45, 6204-6209.	1.6	23
49	Dehydrogenative Bond-Forming Catalysis Involving Phosphines: Updated Through 2010. Current Organic Chemistry, 2012, 16, 1313-1331.	0.9	22
50	A general synthesis of phosphaalkenes at zirconium with liberation of phosphaformamides. Dalton Transactions, 2013, 42, 1159-1167.	1.6	22
51	Metalâ€Ligand Cooperativity in a Methandiideâ€Derived Iridium Carbene Complex. Chemistry - A European Journal, 2016, 22, 3846-3855.	1.7	22
52	Dehydrocoupling of amine boranes via tin(IV) and tin(II) catalysts. Journal of Organometallic Chemistry, 2014, 751, 541-545.	0.8	21
53	Terminal stibinidene ligands. Generation of CpCp*Hfî€Sb(dmp) and trapping reactions with PMe3and 2-butyne. Chemical Communications, 2006, , 4030-4032.	2.2	20
54	A bench-stable copper photocatalyst for the rapid hydrophosphination of activated and unactivated alkenes. Chemical Communications, 2020, 56, 14219-14222.	2.2	20

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55	Macroscopic Molecular Ordering and Exciton Delocalization in Crystalline Phthalocyanine Thin Films. Journal of Physical Chemistry Letters, 2015, 6, 1834-1840.	2.1	19
56	Siliconâ€“Nitrogen Bond Formation via Heterodehydrocoupling and Catalytic Nâ€Silylation. Chemistry - A European Journal, 2021, 27, 3251-3261.	1.7	19
57	Catalytic Nâ€“Si coupling as a vehicle for silane dehydrocoupling via Î±-silylene elimination. Dalton Transactions, 2018, 47, 2138-2142.	1.6	18
58	Siâ€“N Heterodehydrocoupling with a Lanthanide Compound. Organometallics, 2018, 37, 4395-4401.	1.1	18
59	Antimonyâ^'Antimony Bond Formation by Reductive Elimination from a Hafnium Bis(stibido) Complex. Inorganic Chemistry, 2006, 45, 9625-9627.	1.9	17
60	Paramagnetic Vanadium Silyl Complexes: Synthesis, Structure, and Reactivity. Organometallics, 2008, 27, 5717-5722.	1.1	16
61	High Activity and Selectivity for Silane Dehydrocoupling by an Iridium Catalyst. ACS Catalysis, 2012, 2, 1404-1407.	5.5	16
62	Sequential Insertion Reactions of Carbon Monoxide and Ethylene into the Niâ^'C Bond of a Cationic Nickel(II) Alkyl Complex. Organometallics, 2009, 28, 2568-2571.	1.1	15
63	Differences in the stability of zirconium(IV) complexes related to catalytic phosphine dehydrocoupling reactions. Dalton Transactions, 2011, 40, 7683.	1.6	15
64	Photoactivated siliconâ€“oxygen and siliconâ€“nitrogen heterodehydrocoupling with a commercially available iron compound. Dalton Transactions, 2020, 49, 2972-2978.	1.6	15
65	Câ€“N Bond formation via ligand-induced nucleophilicity at a coordinated triamidoamine ligand. Chemical Communications, 2011, 47, 11769.	2.2	14
66	Metal Complexes (M = Zn, Sn, and Pb) of 2-Phosphinobenzenethiolates: Insights into Ligand Folding and Hemilability. Inorganic Chemistry, 2013, 52, 9875-9884.	1.9	14
67	Unexpected formal insertion of CO₂ into the Câ€“Si bonds of a zinc compound. Chemical Communications, 2015, 51, 15804-15807.	2.2	14
68	Evidence for Ironâ€Catalyzed Î±â€Phosphinidene Elimination with Phenylphosphine. Chemistry - A European Journal, 2018, 24, 2554-2557.	1.7	14
69	Triamidoamine-Supported Zirconium Compounds in Main Group Bond-Formation Catalysis. Accounts of Chemical Research, 2019, 52, 2361-2369.	7.6	14
70	Photocatalytic Hydrophosphination of Alkenes and Alkynes Using Diphenylphosphine and Triamidoamineâ€Supported Zirconium. European Journal of Inorganic Chemistry, 2019, 2019, 1640-1643.	1.0	14
71	Asâ€“As Bond Formation via Reductive Elimination from a Zirconocene Bis(dimesitylarsenide) Compound. Organometallics, 2012, 31, 5204-5207.	1.1	12
72	Zirconium-Mediated Synthesis of Arsaalkene Compounds from Arsines and Isocyanides. Inorganic Chemistry, 2013, 52, 7811-7816.	1.9	12

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73	Insertion reactions involving a triamidoamine-supported zirconium complex. Dalton Transactions, 2010, 39, 9073.	1.6	11
74	Synthesis and characterization of zinc complexes and reactivity with primary phosphines. Journal of Organometallic Chemistry, 2012, 696, 4327-4331.	0.8	10
75	Zirconium-catalyzed hydroarsination with primary arsines. Polyhedron, 2018, 156, 31-34.	1.0	10
76	Structural versatility of the quasi-aromatic MÃ¶bius type zinc(ii)-pseudohalide complexes â€“ experimental and theoretical investigations. RSC Advances, 2019, 9, 23764-23773.	1.7	10
77	Elementâ€“Hydrogen Bond Activations at Cationic Platinum Centers To Produce Silylene, Germylene, Stannylene, and Stibido Complexes. Organometallics, 2019, 38, 2053-2061.	1.1	9
78	A â€œBottle-ableâ€•Phosphinidene. CheM, 2016, 1, 27-29.	5.8	8
79	A Commercially Available Ruthenium Compound for Catalytic Hydrophosphination. Israel Journal of Chemistry, 2020, 60, 446-451.	1.0	8
80	Synthesis, structure, and reactivity of platinum compounds featuring terminal amido and phosphido ligands. Inorganica Chimica Acta, 2014, 422, 57-64.	1.2	6
81	Spin Exchange Interaction in Substituted Copper Phthalocyanine Crystalline Thin Films. Scientific Reports, 2015, 5, 16536.	1.6	6
82	Zirconium-Catalyzed Alkene Hydrophosphination and Dehydrocoupling with an Air-Stable, Fluorescent Primary Phosphine. Inorganics, 2016, 4, 26.	1.2	6
83	Triamidoamine-supported zirconium: hydrogen activation, Lewis acidity, and rac-lactide polymerization. RSC Advances, 2016, 6, 70581-70585.	1.7	6
84	Electrochemical and structural characterization of a radical cation formed by one-electron oxidation of a cymantrene complex containing an N-heterocyclic carbene ligand. Polyhedron, 2019, 157, 442-448.	1.0	6
85	Exciton Delocalization in H₂OBPc_{1â€“<i>x</i>}MOBPc_{<i>x</i>} (M =) Tj ETQq1 1 0.784314 rgB 11966-11976.	1.5	4
86	{<i>N</i>,<i>N</i>-Bis[2-(trimethylsilylamino)ethyl]-<i>N</i>â€²-(trimethylsilyl)ethane-1,2-diaminato(3â€“)-Îº⁴<i>N</i>}me Acta Crystallographica Section E: Structure Reports Online, 2008, 64, m477-m477.	0.2	4
87	Selectivity effects in zirconium-catalyzed heterodehydrocoupling reactions of phosphines. Phosphorus, Sulfur and Silicon and the Related Elements, 2016, 191, 668-670.	0.8	3
88	Phosphorus chemistry: discoveries and advances. Dalton Transactions, 2016, 45, 1801-1803.	1.6	3
89	Effect of Photolysis on Zirconium Amino Phenoxides for the Hydrophosphination of Alkenes: Improving Catalysis. Photochem, 2022, 2, 77-87.	1.3	3
90	Cyclo-Tetrakis(Î¼-diphenylphosphido)-1,5-bis(tri-tert-butylphosphine)-Tetracopper. MolBank, 2022, 2022, M1334.	0.2	3

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91	Anodic Oxidation of Ethynylferrocene Derivatives in Homogeneous Solution and Following Anodic Deposition onto Glassy Carbon Electrodes. ChemElectroChem, 2019, 6, 5880-5887.	1.7	2
92	Bis(4-methyl-<i>N</i>-{(2<i>Z</i>,4<i>E</i>)-4-[(4-methylphenyl)imino]pent-2-en-2-yl}anilinido)zinc. Acta Crystallographica Section E: Structure Reports Online, 2012, 68, m343-m343.	0.2	1
93	Organic analogues of diluted magnetic semiconductors: bridging quantum chemistry to condensed matter physics. , 2015, , .		1
94	Love in the Time of COVID. Journal of Organic Chemistry, 2020, 85, 14273-14275.	1.7	1
95	rac-18-Methoxycoronaridine hydrochloride. Acta Crystallographica Section E: Structure Reports Online, 2012, 68, o1041-o1041.	0.2	0
96	The Cottrell Scholars Collaborative New Faculty Workshop: Early Lessons for Change in Teaching. ACS Symposium Series, 2017, , 23-34.	0.5	0
97	Zirconium Complexes. , 2021, , 162-196.		0
98	Buta- and Penta-Dienyl Complexes of the Group 4 Metals. , 2021, , .		0
99	2,6-Bis[bis(1,1-dimethylethyl)phosphinito-ÎºP]phenyl-ÎºC]-trans-chlorohydro(phenylphosphine)iridium(III). MolBank, 2022, 2022, M1388.	0.2	0