Mark R Crimmin

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6864551/publications.pdf

Version: 2024-02-01

119 papers	5,402 citations	87888 38 h-index	95266 68 g-index
160 all docs	160 docs citations	160 times ranked	2682 citing authors

#	Article	IF	Citations
1	Calcium-Mediated Intramolecular Hydroamination Catalysis. Journal of the American Chemical Society, 2005, 127, 2042-2043.	13.7	369
2	Intramolecular Hydroamination of Aminoalkenes by Calcium and Magnesium Complexes: A Synthetic and Mechanistic Study. Journal of the American Chemical Society, 2009, 131, 9670-9685.	13.7	261
3	Heterofunctionalization catalysis with organometallic complexes of calcium, strontium and barium. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 927-963.	2.1	248
4	Calcium-Catalyzed Intermolecular Hydrophosphination. Organometallics, 2007, 26, 2953-2956.	2.3	193
5	Heavier Group 2 Element Catalyzed Hydrophosphination of Carbodiimides. Organometallics, 2008, 27, 497-499.	2.3	139
6	Heavier Group 2 Metals and Intermolecular Hydroamination: A Computational and Synthetic Assessment. Journal of the American Chemical Society, 2009, 131, 12906-12907.	13.7	139
7	Triazenide Complexes of the Heavier Alkaline Earths: Synthesis, Characterization, And Suitability for Hydroamination Catalysis. Inorganic Chemistry, 2008, 47, 7366-7376.	4.0	138
8	Cation Charge Density and Precatalyst Selection in Group 2-Catalyzed Aminoalkene Hydroamination. Organometallics, 2011, 30, 1493-1506.	2.3	118
9	Oxidative addition of carbonâ€“fluorine and carbonâ€“oxygen bonds to Al(<scp>i</scp>). Chemical Communications, 2015, 51, 15994-15996.	4.1	114
10	Heavier Alkaline Earth Amides as Catalysts for the Tischenko Reaction. Organic Letters, 2007, 9, 331-333.	4.6	105
11	Homogeneous Catalysis with Organometallic Complexes of Group 2. Topics in Organometallic Chemistry, 2013, , 191-241.	0.7	102
12	Bis(trimethylsilyl)methyl Derivatives of Calcium, Strontium and Barium: Potentially Useful Dialkyls of the Heavy Alkaline Earth Elements. Chemistry - A European Journal, 2008, 14, 11292-11295.	3.3	101
13	Kinetic stability of heteroleptic (Î²-diketiminato) heavier alkaline-earth (Ca, Sr, Ba) amides. Dalton Transactions, 2005, , 278-284.	3.3	99
14	Zirconocene Dichloride Catalyzed Hydrodefluorination of Cï£¿F bonds. Angewandte Chemie - International Edition, 2012, 51, 12559-12563.	13.8	97
15	Reactions of Fluoroalkenes with an Aluminium(I) Complex. Angewandte Chemie - International Edition, 2018, 57, 6638-6642.	13.8	94
16	A Step beyond the Felthamâ€“Enemark Notation: Spectroscopic and Correlatedab InitioComputational Support for an Antiferromagnetically Coupled M(II)â€“(NO)^{â^'}Description of Tp*M(NO) (M = Co, Ni). Journal of the American Chemical Society, 2011, 133, 18785-18801.	13.7	89
17	Organometallic chemistry using partially fluorinated benzenes. Chemical Communications, 2017, 53, 3615-3633.	4.1	88
18	A combined experimental and computational study on the reaction of fluoroarenes with Mgâ€“Mg, Mgâ€“Zn, Mgâ€“Al and Alâ€“Zn bonds. Chemical Science, 2018, 9, 2348-2356.	7.4	86

#	Article	IF	Citations
19	Heavier Groupâ€2â€Element Catalyzed Hydroamination of Carbodiimides. European Journal of Inorganic Chemistry, 2008, 2008, 4173-4179.	2.0	76
20	Magnesium, zinc, aluminium and gallium hydride complexes of the transition metals. Chemical Communications, 2017, 53, 1348-1365.	4.1	74
21	Addition of Carbonâ€“Fluorine Bonds to a Mg(I)â€“Mg(I) Bond: An Equivalent of Grignard Formation in Solution. Journal of the American Chemical Society, 2016, 138, 12763-12766.	13.7	72
22	A hexagonal planar transition-metal complex. Nature, 2019, 574, 390-393.	27.8	72
23	Reversible alkene binding and allylic Câ€“H activation with an aluminium(<scp>i</scp>) complex. Chemical Science, 2019, 10, 2452-2458.	7.4	71
24	Î²-Diketiminato Calcium and Magnesium Amides; Model Complexes for Hydroamination Catalysis. Inorganic Chemistry, 2009, 48, 4445-4453.	4.0	66
25	Selective Oxidation of Methane to Methanol Over Cu- and Fe-Exchanged Zeolites: The Effect of Si/Al Molar Ratio. Catalysis Letters, 2016, 146, 483-492.	2.6	66
26	Synthesis, Characterization, and Solution Lability of N-Heterocyclic Carbene Adducts of the Heavier Group 2 Bis(trimethylsilyl)amides. Organometallics, 2008, 27, 3939-3946.	2.3	65
27	Trifluoromethyl Coordination and Cï£¿F Bond Activation at Calcium. Angewandte Chemie - International Edition, 2007, 46, 6339-6342.	13.8	63
28	Room temperature catalytic carbonâ€“hydrogen bond alumination of unactivated arenes: mechanism and selectivity. Chemical Science, 2018, 9, 5435-5440.	7.4	63
29	Dimerization of Î²-Diketiminato Calcium Complexes through Dihapto-Acetylide Ligation. Organometallics, 2005, 24, 1184-1188.	2.3	60
30	Carbon Chain Growth by Sequential Reactions of CO and CO₂ with [W(CO)₆] and an Aluminum(I) Reductant. Journal of the American Chemical Society, 2018, 140, 13614-13617.	13.7	60
31	Î²-Diketiminato Calcium Acetylides: Synthesis, Solution Dimerization, and Catalytic Carbonâˆ'Carbon Bond Formation. Organometallics, 2008, 27, 6300-6306.	2.3	58
32	Heavier group 2 element-catalysed hydroamination of isocyanates. Chemical Communications, 2008, , 5206.	4.1	57
33	Defluorosilylation of Industrially Relevant Fluoroolefins Using Nucleophilic Silicon Reagents. Angewandte Chemie - International Edition, 2019, 58, 12514-12518.	13.8	56
34	Addition of aluminium, zinc and magnesium hydrides to rhodium(<scp>iii</scp>). Chemical Science, 2015, 6, 5617-5622.	7.4	50
35	Reactions of Î²-Diketiminate-Stabilized Calcium Amides with 9-Borabicyclo[3.3.1]nonane (9-BBN). Organometallics, 2007, 26, 4076-4079.	2.3	47
36	Reactions of Fluoroalkenes with an Aluminium(I) Complex. Angewandte Chemie, 2018, 130, 6748-6752.	2.0	44

#	Article	IF	Citations
37	Solution- and solid-state characterisation of a configurationally-stable Î²-diketiminato-supported calcium primary amide. Dalton Transactions, 2004, , 3166-3168.	3.3	41
38	Cooperative strategies for CO homologation. Dalton Transactions, 2020, 49, 16587-16597.	3.3	41
39	Reactions of an Aluminum(I) Reagent with 1,2-, 1,3-, and 1,5-Dienes: Dearomatization, Reversibility, and a Pericyclic Mechanism. Inorganic Chemistry, 2020, 59, 4608-4616.	4.0	40
40	Enantioselective Synthesis of the Cyclopiazonic Acid Family Using Sulfur Ylides. Angewandte Chemie - International Edition, 2018, 57, 1346-1350.	13.8	39
41	Carbodiimide insertion reactions of homoleptic heavier alkaline earth amides and phosphides. Dalton Transactions, 2010, 39, 7393.	3.3	38
42	Beryllium derivatives of a phenyl-substituted Î²-diketiminate: a well-defined ring opening reaction of tetrahydrofuran. Dalton Transactions, 2013, 42, 9720.	3.3	38
43	Catalytic hydroacetylenation of carbodiimides with homoleptic alkaline earth hexamethyldisilazides. Dalton Transactions, 2014, 43, 14249-14256.	3.3	37
44	Bis(diphenylphosphido) Derivatives of the Heavier Group 2 Elements. Inorganic Chemistry, 2007, 46, 10410-10415.	4.0	36
45	Catalytic 2,3,4-hexatriene formation by terminal alkyne coupling at calcium. Chemical Communications, 2009, , 2299.	4.1	35
46	Weakly Coordinated Zinc and Aluminum Ïƒ-Complexes of Copper(I). Organometallics, 2014, 33, 2685-2688.	2.3	35
47	Ligand-Based Carbonâ€“Nitrogen Bond Forming Reactions of Metal Dinitrosyl Complexes with Alkenes and Their Application to Câ€“H Bond Functionalization. Accounts of Chemical Research, 2014, 47, 517-529.	15.6	35
48	Bis(Ïƒ-Bâ€“H) complexes of copper(<scp>i</scp>): precursors to a heterogeneous amineâ€“borane dehydrogenation catalyst. Dalton Transactions, 2015, 44, 12530-12534.	3.3	33
49	Selective Reduction of CO₂ to a Formate Equivalent with Heterobimetallic Goldâ€‰â€‰â€‰â€‰Copper Hydride Complexes. Angewandte Chemie - International Edition, 2017, 56, 15127-15130.	13.8	33
50	Catalytic and Stoichiometric Cumulene Formation within Dimeric Group 2 Acetylides. Organometallics, 2013, 32, 4961-4972.	2.3	32
51	Functionalisation of Carbonâ€“Fluorine Bonds with Main Group Reagents. Synthesis, 2017, 49, 810-821.	2.3	32
52	Synthesis of Î²-diketiminato calcium silylamides and their reactions with triethylaluminium. New Journal of Chemistry, 2010, 34, 1572.	2.8	31
53	Rhodium Catalyzed, Carbonâ€“Hydrogen Bond Directed Hydrodefluorination of Fluoroarenes. Organometallics, 2014, 33, 7027-7030.	2.3	31
54	Trajectory of Approach of a Zincâ€“Hydrogen Bond to Transition Metals. Angewandte Chemie - International Edition, 2016, 55, 16031-16034.	13.8	31

#	Article	IF	Citations
55	Isomerization of Cyclooctadiene to Cyclooctyne with a Zinc/Zirconium Heterobimetallic Complex. Angewandte Chemie - International Edition, 2016, 55, 6951-6953.	13.8	30
56	Reversible Coordination of Boronâ€“, Aluminumâ€“, Zincâ€“, Magnesiumâ€“, and Calciumâ€“Hydrogen Bonds to Bent {CuL₂} Fragments: Heavy Ïƒ Complexes of the Lightest Coinage Metal. Inorganic Chemistry, 2017, 56, 8669-8682.	4.0	30
57	Reactions of Fluoroalkanes with Mgâˆ’Mg Bonds: Scope, sp³Câˆ’F/sp²Câˆ’F Coupling and Mechanism. Chemistry - A European Journal, 2018, 24, 16282-16286.	3.3	29
58	Insertion reactions of Î²-diketiminate-stabilised calcium amides with 1,3-dialkylcarbodiimides. Dalton Transactions, 2008, , 4474.	3.3	28
59	Cobalt-Mediated, Enantioselective Synthesis of C₂ and C₁ Dienes. Journal of the American Chemical Society, 2010, 132, 16365-16367.	13.7	28
60	Î²-Diketiminate Câ€“H activation with heavier group 2 alkyls. Dalton Transactions, 2009, , 9715.	3.3	27
61	Yttrium-Catalyzed Amineâ€“Silane Dehydrocoupling: Extended Reaction Scope with a Phosphorus-Based Ligand. Organometallics, 2015, 34, 4369-4375.	2.3	27
62	Breaking Carbonâ€“Fluorine Bonds with Main Group Nucleophiles. Synlett, 2019, 30, 2233-2246.	1.8	27
63	Defluoroalkylation of sp³ Câˆ’F Bonds of Industrially Relevant Hydrofluoroolefins. Chemistry - A European Journal, 2020, 26, 5365-5368.	3.3	26
64	Activation and Functionalization of Câ€“C Ïƒ Bonds of Alkylidene Cyclopropanes at Main Group Centers. Journal of the American Chemical Society, 2020, 142, 11967-11971.	13.7	25
65	Chemoselective Câˆ’C Ïƒâ€Bond Activation of the Most Stable Ring in Biphenylene**. Angewandte Chemie - International Edition, 2021, 60, 2619-2623.	13.8	25
66	Reactivity of [HC{(C(Me)N(Dipp))}2Ca{N(SiMe3)2}(THF)] (Dipp=C6H3iPr2-2,6) with Câ€“H acids: Synthesis of heteroleptic calcium Î·5-organometallics. Journal of Organometallic Chemistry, 2006, 691, 1242-1250.	1.8	24
67	Reversibility in the protonolysis of a Î²-diketiminate stabilised calcium bis(trimethylsilyl)amide with benzylamine. Dalton Transactions, 2008, , 1292.	3.3	24
68	Palladium-catalysed magnesiation of benzene. Chemical Communications, 2018, 54, 12326-12328.	4.1	24
69	Repurposing of F-gases: challenges and opportunities in fluorine chemistry. Chemical Society Reviews, 2022, 51, 4977-4995.	38.1	24
70	Palladiumâ€Catalysed Câˆ’H Bond Zincation of Arenes: Scope, Mechanism, and the Role of Heterometallic Intermediates. Angewandte Chemie - International Edition, 2021, 60, 6145-6153.	13.8	23
71	Palladiumâ€Catalyzed Carbonâ€“Fluorine and Carbonâ€“Hydrogen Bond Alumination of Fluoroarenes and Heteroarenes. Angewandte Chemie - International Edition, 2017, 56, 12687-12691.	13.8	22
72	Catalytic Câ€“H to Câ€“M (M = Al, Mg) bond transformations with heterometallic complexes. Chemical Science, 2021, 12, 1993-2000.	7.4	22

#	Article	IF	Citations
73	Group 11 Borataalkene Complexes: Models for Alkene Activation. Angewandte Chemie - International Edition, 2021, 60, 12013-12019.	13.8	21
74	Preparation and properties of a series of structurally diverse aluminium hydrides supported by Î²-diketiminate and bis(amide) ligands. Dalton Transactions, 2013, 42, 15199.	3.3	20
75	Reversible insertion of CO into an aluminiumâ€“carbon bond. Chemical Communications, 2019, 55, 6181-6184.	4.1	20
76	Cooperative Câ€“H Bond Activation by a Low-Spin d⁶ Ironâ€“Aluminum Complex. Journal of the American Chemical Society, 2022, 144, 8770-8777.	13.7	20
77	Palladium-catalysed Câ€“F alumination of fluorobenzenes: mechanistic diversity and origin of selectivity. Chemical Science, 2020, 11, 7842-7849.	7.4	19
78	Tunable Binding of Dinitrogen to a Series of Heterobimetallic Hydride Complexes. Organometallics, 2018, 37, 4521-4526.	2.3	18
79	Au(I) Catalyzed HF Transfer: Tandem Alkyne Hydrofluorination and Perfluoroarene Functionalization. ACS Catalysis, 2022, 12, 3411-3419.	11.2	18
80	A metalâ€“amide dependent, catalytic Câ€“H functionalisation of triphenylphosphonium methylide. Chemical Science, 2013, 4, 691-695.	7.4	17
81	Defluorosilylation of Industrially Relevant Fluoroolefins Using Nucleophilic Silicon Reagents. Angewandte Chemie, 2019, 131, 12644-12648.	2.0	17
82	Complete deconstruction of SF₆ by an aluminium(<scp>i</scp>) compound. Chemical Communications, 2021, 57, 7096-7099.	4.1	17
83	Reactions of aluminium(<scp>i</scp>) with transition metal carbonyls: scope, mechanism and selectivity of CO homologation. Chemical Science, 2021, 12, 14845-14854.	7.4	17
84	Heterobimetallic Rebound: A Mechanism for Diene-to-Alkyne Isomerization with M---Zr Hydride Complexes (M = Al, Zn, and Mg). Organometallics, 2018, 37, 949-956.	2.3	16
85	Unravelling nucleophilic aromatic substitution pathways with bimetallic nucleophiles. Chemical Communications, 2019, 55, 1805-1808.	4.1	16
86	[(TMEDA)Co(NO)2][BPh4]: A versatile synthetic entry point to four and five coordinate {Co(NO)2}10 complexes. Journal of Organometallic Chemistry, 2011, 696, 3974-3981.	1.8	15
87	Binuclear Î²-diketiminate complexes of copper(<scp>i</scp>). Dalton Transactions, 2017, 46, 2081-2090.	3.3	15
88	Organocatalyzed Fluoride Metathesis. Organic Letters, 2020, 22, 9351-9355.	4.6	15
89	Catalyst control of selectivity in the Câ€“O bond alumination of biomass derived furans. Chemical Science, 2020, 11, 7850-7857.	7.4	15
90	1st row transition metal aluminylene complexes: preparation, properties and bonding analysis. Dalton Transactions, 2021, 50, 7810-7817.	3.3	15

#	Article	IF	Citations
91	A Highly Chemoselective, Zr-Catalyzed Câ€“O Bond Functionalization of Benzofuran. Organometallics, 2013, 32, 5260-5262.	2.3	14
92	Synthesis of [RuCl₂(NO)₂(THF)] and its Double Cï£¿N Bondâ€Forming Reactions with Alkenes. Angewandte Chemie - International Edition, 2011, 50, 4484-4487.	13.8	13
93	Wittig-olefination via an yttrium-coordinated betaine. Chemical Communications, 2012, 48, 1745.	4.1	13
94	Re-evaluating selectivity as a determining factor in peroxidative methane oxidation by multimetallic copper complexes. Catalysis Science and Technology, 2015, 5, 4108-4115.	4.1	13
95	Mild sp²Carbonâ€“Oxygen Bond Activation by an Isolable Ruthenium(II) Bis(dinitrogen) Complex: Experiment and Theory. Organometallics, 2017, 36, 3654-3663.	2.3	13
96	Dihydridoboranes: Selective Reagents for Hydroboration and Hydrodefluorination. Organic Letters, 2019, 21, 7289-7293.	4.6	13
97	Group 11 Borataalkene Complexes: Models for Alkene Activation. Angewandte Chemie, 2021, 133, 12120-12126.	2.0	13
98	Selective Hydrodefluorination of Hexafluoropropene to Industrially Relevant Hydrofluoroolefins. Advanced Synthesis and Catalysis, 2019, 361, 3351-3358.	4.3	12
99	Stereoisomerism of bis(ïƒâ€Zincane) Complexes: Evidence for an Intramolecular Pathway. Chemistry - A European Journal, 2017, 23, 5682-5686.	3.3	11
100	Selective Reduction of CO₂ to a Formate Equivalent with Heterobimetallic Goldâ€â€‰â€â€‰â€Copper Hydride Complexes. Angewandte Chemie, 2017, 129, 15323-15326.	2.0	11
101	The partial dehydrogenation of aluminium dihydrides. Chemical Science, 2019, 10, 8083-8093.	7.4	11
102	Trajectory of Approach of a Zincâ€“Hydrogen Bond to Transition Metals. Angewandte Chemie, 2016, 128, 16265-16268.	2.0	10
103	Palladiumâ€Catalysed Câ€“H Bond Zincation of Arenes: Scope, Mechanism, and the Role of Heterometallic Intermediates. Angewandte Chemie, 2021, 133, 6210-6218.	2.0	10
104	Functionalization and Hydrogenation of Carbon Chains Derived from CO**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	10
105	Magnesium-stabilised transition metal formyl complexes: structures, bonding, and ethenediolate formation. Chemical Science, 2022, 13, 6592-6598.	7.4	10
106	Synthesis and coordination chemistry of tri-substituted benzamidrazones. Dalton Transactions, 2011, 40, 514-522.	3.3	8
107	Yttrium-catalysed dehydrocoupling of alanes with amines. Chemical Communications, 2014, 50, 9536.	4.1	8
108	Isomerization of Cyclooctadiene to Cyclooctyne with a Zinc/Zirconium Heterobimetallic Complex. Angewandte Chemie, 2016, 128, 7065-7067.	2.0	8

#	Article	IF	Citations
109	Isolation of an unusual [Cu₆] nanocluster through sequential addition of copper(<scp>i</scp>) to a polynucleating ligand. Dalton Transactions, 2017, 46, 2077-2080.	3.3	8
110	Defluorosilylation of trifluoromethane: upgrading an environmentally damaging fluorocarbon. Chemical Communications, 2020, 56, 12929-12932.	4.1	8
111	Preparation and characterisation of heterobimetallic copperâ€“tungsten hydride complexes. Dalton Transactions, 2018, 47, 10595-10600.	3.3	7
112	Chemoselective Câˆ'C Ïƒâ€Bond Activation of the Most Stable Ring in Biphenylene**. Angewandte Chemie, 2021, 133, 2651-2655.	2.0	7
113	Palladiumâ€Catalyzed Carbonâ€“Fluorine and Carbonâ€“Hydrogen Bond Alumination of Fluoroarenes and Heteroarenes. Angewandte Chemie, 2017, 129, 12861-12865.	2.0	6
114	Enantioselective Synthesis of the Cyclopiazonic Acid Family Using Sulfur Ylides. Angewandte Chemie, 2018, 130, 1360-1364.	2.0	5
115	Alumination of aryl methyl ethers: switching between sp² and sp³ Câ€“O bond functionalisation with Pd-catalysis. Chemical Communications, 2021, 57, 11673-11676.	4.1	4
116	Benzene rings broken for chemical synthesis. Nature, 2021, 597, 33-34.	27.8	2
117	Stereoselective insertion of cyclopropenes into Mgâ€“Mg bonds. Chemical Communications, 2022, 58, 8282-8285.	4.1	1
118	Calcium-Mediated Intramolecular Hydroamination Catalysis.. ChemInform, 2005, 36, no.	0.0	0
119	Functionalization and Hydrogenation of Carbon Chains Derived from CO**. Angewandte Chemie, 0, , .	2.0	0