Mark R Crimmin

List of Publications by Year in Descending Order

114 papers	4,326 citations	35 h-index	62 g-index
160 ext. papers	4,941 ext. citations	8.3 avg, IF	5.98 L-index

#	Paper	IF	Citations
114	Au(I) Catalyzed HF Transfer: Tandem Alkyne Hydrofluorination and Perfluoroarene Functionalization.. *ACS Catalysis*, **2022**, 12, 3411-3419	13.1	0
113	Reactions of aluminium(i) with transition metal carbonyls: scope, mechanism and selectivity of CO homologation. *Chemical Science*, **2021**, 12, 14845-14854	9.4	1
112	Alumination of aryl methyl ethers: switching between sp and sp C-O bond functionalisation with Pd-catalysis. *Chemical Communications*, **2021**, 57, 11673-11676	5.8	0
111	Group 11 Borataalkene Complexes: Models for Alkene Activation. *Angewandte Chemie*, **2021**, 133, 12120-12126	3.6	0
110	Group 11 Borataalkene Complexes: Models for Alkene Activation. *Angewandte Chemie - International Edition*, **2021**, 60, 12013-12019	16.4	8
109	Chemoselective C-C Bond Activation of the Most Stable Ring in Biphenylene*. *Angewandte Chemie - International Edition*, **2021**, 60, 2619-2623	16.4	10
108	Palladium-Catalysed C-H Bond Zincation of Arenes: Scope, Mechanism, and the Role of Heterometallic Intermediates. *Angewandte Chemie - International Edition*, **2021**, 60, 6145-6153	16.4	4
107	Chemoselective C Bond Activation of the Most Stable Ring in Biphenylene**. *Angewandte Chemie*, **2021**, 133, 2651-2655	3.6	1
106	Palladium-Catalysed C Bond Zincation of Arenes: Scope, Mechanism, and the Role of Heterometallic Intermediates. *Angewandte Chemie*, **2021**, 133, 6210-6218	3.6	3
105	Complete deconstruction of SF by an aluminium(I) compound. *Chemical Communications*, **2021**, 57, 7096-7099	5.8	4
104	1 row transition metal aluminylene complexes: preparation, properties and bonding analysis. *Dalton Transactions*, **2021**, 50, 7810-7817	4.3	4
103	Cooperative strategies for CO homologation. *Dalton Transactions*, **2020**, 49, 16587-16597	4.3	13
102	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	5.1	20
101	Catalyst control of selectivity in the C-O bond alumination of biomass derived furans. *Chemical Science*, **2020**, 11, 7850-7857	9.4	6
100	Activation and Functionalization of C-C Bonds of Alkylidene Cyclopropanes at Main Group Centers. *Journal of the American Chemical Society*, **2020**, 142, 11967-11971	16.4	14
99	Defluoroalkylation of sp C-F Bonds of Industrially Relevant Hydrofluoroolefins. *Chemistry - A European Journal*, **2020**, 26, 5365-5368	4.8	10
98	Palladium-catalysed C-F alumination of fluorobenzenes: mechanistic diversity and origin of selectivity. *Chemical Science*, **2020**, 11, 7842-7849	9.4	11

97	Organocatalyzed Fluoride Metathesis. *Organic Letters*, **2020**, 22, 9351-9355	6.2	6
96	Defluorosilylation of trifluoromethane: upgrading an environmentally damaging fluorocarbon. *Chemical Communications*, **2020**, 56, 12929-12932	5.8	7
95	Catalytic C-H to C-M (M = Al, Mg) bond transformations with heterometallic complexes. *Chemical Science*, **2020**, 12, 1993-2000	9.4	10
94	Dihydridoboranes: Selective Reagents for Hydroboration and Hydrodefluorination. *Organic Letters*, **2019**, 21, 7289-7293	6.2	8
93	Unravelling nucleophilic aromatic substitution pathways with bimetallic nucleophiles. *Chemical Communications*, **2019**, 55, 1805-1808	5.8	10
92	Reversible alkene binding and allylic C-H activation with an aluminium(i) complex. *Chemical Science*, **2019**, 10, 2452-2458	9.4	47
91	Defluorosilylation of Industrially Relevant Fluoroolefins Using Nucleophilic Silicon Reagents. *Angewandte Chemie - International Edition*, **2019**, 58, 12514-12518	16.4	26
90	Reversible insertion of CO into an aluminium-carbon bond. *Chemical Communications*, **2019**, 55, 6181-6184	5.8	10
89	Selective Hydrodefluorination of Hexafluoropropene to Industrially Relevant Hydrofluoroolefins. *Advanced Synthesis and Catalysis*, **2019**, 361, 3351-3358	5.6	6
88	The partial dehydrogenation of aluminium dihydrides. *Chemical Science*, **2019**, 10, 8083-8093	9.4	5
87	Defluorosilylation of Industrially Relevant Fluoroolefins Using Nucleophilic Silicon Reagents. *Angewandte Chemie*, **2019**, 131, 12644-12648	3.6	8
86	A hexagonal planar transition-metal complex. *Nature*, **2019**, 574, 390-393	50.4	39
85	Breaking Carbon–Fluorine Bonds with Main Group Nucleophiles. *Synlett*, **2019**, 30, 2233-2246	2.2	16
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	3.8	11
83	Reactions of Fluoroalkenes with an Aluminium(I) Complex. *Angewandte Chemie*, **2018**, 130, 6748-6752	3.6	38
82	Reactions of Fluoroalkenes with an Aluminium(I) Complex. *Angewandte Chemie - International Edition*, **2018**, 57, 6638-6642	16.4	72
81	A combined experimental and computational study on the reaction of fluoroarenes with Mg-Mg, Mg-Zn, Mg-Al and Al-Zn bonds. *Chemical Science*, **2018**, 9, 2348-2356	9.4	65
80	Enantioselective Synthesis of the Cyclopiazonic Acid Family Using Sulfur Ylides. *Angewandte Chemie - International Edition*, **2018**, 57, 1346-1350	16.4	32

79	Enantioselective Synthesis of the Cyclopiazonic Acid Family Using Sulfur Ylides. *Angewandte Chemie* , **2018**, 130, 1360-1364	3.6	5
78	Tunable Binding of Dinitrogen to a Series of Heterobimetallic Hydride Complexes. *Organometallics*, **2018**, 37, 4521-4526	3.8	10
77	Palladium-catalysed magnesiation of benzene. *Chemical Communications*, **2018**, 54, 12326-12328	5.8	11
76	Carbon Chain Growth by Sequential Reactions of CO and CO with [W(CO)] and an Aluminum(I) Reductant. *Journal of the American Chemical Society*, **2018**, 140, 13614-13617	16.4	33
75	Reactions of Fluoroalkanes with Mg-Mg Bonds: Scope, sp C-F/sp C-F Coupling and Mechanism. *Chemistry - A European Journal*, **2018**, 24, 16282-16286	4.8	20
74	Room temperature catalytic carbon-hydrogen bond alumination of unactivated arenes: mechanism and selectivity. *Chemical Science*, **2018**, 9, 5435-5440	9.4	49
73	Preparation and characterisation of heterobimetallic copper-tungsten hydride complexes. *Dalton Transactions*, **2018**, 47, 10595-10600	4.3	4
72	Binuclear diketiminate complexes of copper(i). *Dalton Transactions*, **2017**, 46, 2081-2090	4.3	13
71	Isolation of an unusual [Cu] nanocluster through sequential addition of copper(i) to a polynucleating ligand. *Dalton Transactions*, **2017**, 46, 2077-2080	4.3	8
70	Reversible Coordination of Boron-, Aluminum-, Zinc-, Magnesium-, and Calcium-Hydrogen Bonds to Bent {CuL} Fragments: Heavy Complexes of the Lightest Coinage Metal. *Inorganic Chemistry*, **2017** , 56, 8669-8682	5.1	23
69	Stereoisomerism of bis(Zincane) Complexes: Evidence for an Intramolecular Pathway. *Chemistry - A European Journal*, **2017**, 23, 5682-5686	4.8	6
68	Organometallic chemistry using partially fluorinated benzenes. *Chemical Communications*, **2017**, 53, 3615-3633	5.8	63
67	Functionalisation of CarbonFluorine Bonds with Main Group Reagents. *Synthesis*, **2017**, 49, 810-821	2.9	28
66	Magnesium, zinc, aluminium and gallium hydride complexes of the transition metals. *Chemical Communications*, **2017**, 53, 1348-1365	5.8	50
65	Selective Reduction of CO to a Formate Equivalent with Heterobimetallic Gold- - -Copper Hydride Complexes. *Angewandte Chemie - International Edition*, **2017**, 56, 15127-15130	16.4	26
64	Selective Reduction of CO2 to a Formate Equivalent with Heterobimetallic Gold- - -Copper Hydride Complexes. *Angewandte Chemie*, **2017**, 129, 15323-15326	3.6	10
63	Palladium-Catalyzed CarbonFluorine and CarbonHydrogen Bond Alumination of Fluoroarenes and Heteroarenes. *Angewandte Chemie*, **2017**, 129, 12861-12865	3.6	4
62	Mild spCarbon-Oxygen Bond Activation by an Isolable Ruthenium(II) Bis(dinitrogen) Complex: Experiment and Theory. *Organometallics*, **2017**, 36, 3654-3663	3.8	12

61	Palladium-Catalyzed Carbon-Fluorine and Carbon-Hydrogen Bond Alumination of Fluoroarenes and Heteroarenes. *Angewandte Chemie - International Edition*, **2017**, 56, 12687-12691	16.4	18
60	Trajectory of Approach of a Zinc–Hydrogen Bond to Transition Metals. *Angewandte Chemie*, **2016**, 128, 16265-16268	3.6	6
59	Trajectory of Approach of a Zinc-Hydrogen Bond to Transition Metals. *Angewandte Chemie - International Edition*, **2016**, 55, 16031-16034	16.4	20
58	Addition of Carbon-Fluorine Bonds to a Mg(I)-Mg(I) Bond: An Equivalent of Grignard Formation in Solution. *Journal of the American Chemical Society*, **2016**, 138, 12763-12766	16.4	58
57	Isomerization of Cyclooctadiene to Cyclooctyne with a Zinc/Zirconium Heterobimetallic Complex. *Angewandte Chemie - International Edition*, **2016**, 55, 6951-3	16.4	22
56	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	2.8	50
55	Isomerization of Cyclooctadiene to Cyclooctyne with a Zinc/Zirconium Heterobimetallic Complex. *Angewandte Chemie*, **2016**, 128, 7065-7067	3.6	8
54	Bis(β-B-H) complexes of copper(i): precursors to a heterogeneous amine-borane dehydrogenation catalyst. *Dalton Transactions*, **2015**, 44, 12530-4	4.3	30
53	Re-evaluating selectivity as a determining factor in peroxidative methane oxidation by multimetallic copper complexes. *Catalysis Science and Technology*, **2015**, 5, 4108-4115	5.5	9
52	Yttrium-Catalyzed Amine–Silane Dehydrocoupling: Extended Reaction Scope with a Phosphorus-Based Ligand. *Organometallics*, **2015**, 34, 4369-4375	3.8	26
51	Oxidative addition of carbon-fluorine and carbon-oxygen bonds to Al(I). *Chemical Communications*, **2015**, 51, 15994-6	5.8	93
50	Addition of aluminium, zinc and magnesium hydrides to rhodium(iii). *Chemical Science*, **2015**, 6, 5617-5622	9.4	38
49	Yttrium-catalysed dehydrocoupling of alanes with amines. *Chemical Communications*, **2014**, 50, 9536-8	5.8	7
48	Catalytic hydroacetylenation of carbodiimides with homoleptic alkaline earth hexamethyldisilazides. *Dalton Transactions*, **2014**, 43, 14249-56	4.3	30
47	Weakly Coordinated Zinc and Aluminum β-Complexes of Copper(I). *Organometallics*, **2014**, 33, 2685-2688	3.8	28
46	Ligand-based carbon-nitrogen bond forming reactions of metal dinitrosyl complexes with alkenes and their application to C-H bond functionalization. *Accounts of Chemical Research*, **2014**, 47, 517-29	24.3	32
45	Rhodium Catalyzed, Carbon–Hydrogen Bond Directed Hydrodefluorination of Fluoroarenes. *Organometallics*, **2014**, 33, 7027-7030	3.8	24
44	Beryllium derivatives of a phenyl-substituted β-diketiminate: a well-defined ring opening reaction of tetrahydrofuran. *Dalton Transactions*, **2013**, 42, 9720-6	4.3	35

43	A metal□amide dependent, catalytic C□H functionalisation of triphenylphosphonium methylide. *Chemical Science*, **2013**, 4, 691-695	9.4	15
42	Homogeneous Catalysis with Organometallic Complexes of Group 2. *Topics in Organometallic Chemistry*, **2013**, 191-241	0.6	90
41	Preparation and properties of a series of structurally diverse aluminium hydrides supported by □diketiminate and bis(amide) ligands. *Dalton Transactions*, **2013**, 42, 15199-206	4.3	18
40	A Highly Chemoselective, Zr-Catalyzed C□O Bond Functionalization of Benzofuran. *Organometallics*, **2013**, 32, 5260-5262	3.8	14
39	Catalytic and Stoichiometric Cumulene Formation within Dimeric Group 2 Acetylides. *Organometallics*, **2013**, 32, 4961-4972	3.8	25
38	Zirconocene Dichloride Catalyzed Hydrodefluorination of C?F bonds. *Angewandte Chemie*, **2012**, 124, 12727-12731	3.6	32
37	Zirconocene dichloride catalyzed hydrodefluorination of C(sp 2)-F bonds. *Angewandte Chemie - International Edition*, **2012**, 51, 12559-63	16.4	81
36	Wittig-olefination via an yttrium-coordinated betaine. *Chemical Communications*, **2012**, 48, 1745-7	5.8	12
35	[(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	2.3	12
34	Cation Charge Density and Precatalyst Selection in Group 2-Catalyzed Aminoalkene Hydroamination. *Organometallics*, **2011**, 30, 1493-1506	3.8	110
33	Synthesis of [RuCl2(NO)2(THF)] and its Double C?N Bond-Forming Reactions with Alkenes. *Angewandte Chemie*, **2011**, 123, 4576-4579	3.6	
32	Synthesis of [RuCl2(NO)2(THF)] and its double C-N bond-forming reactions with alkenes. *Angewandte Chemie - International Edition*, **2011**, 50, 4484-7	16.4	13
31	Synthesis and coordination chemistry of tri-substituted benzamidrazones. *Dalton Transactions*, **2011**, 40, 514-22	4.3	8
30	A step beyond the Feltham-Enemark notation: spectroscopic and correlated ab initio computational support for an antiferromagnetically coupled M(II)-(NO)- description of Tp*M(NO) (M = Co, Ni). *Journal of the American Chemical Society*, **2011**, 133, 18785-801	16.4	83
29	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	2.4	228
28	Cobalt-mediated, enantioselective synthesis of C(2) and C(1) dienes. *Journal of the American Chemical Society*, **2010**, 132, 16365-7	16.4	24
27	Synthesis of □diketiminato calcium silylamides and their reactions with triethylaluminium. *New Journal of Chemistry*, **2010**, 34, 1572	3.6	26
26	Carbodiimide insertion reactions of homoleptic heavier alkaline earth amides and phosphides. *Dalton Transactions*, **2010**, 39, 7393-400	4.3	33

25	Intramolecular hydroamination of aminoalkenes by calcium and magnesium complexes: a synthetic and mechanistic study. *Journal of the American Chemical Society*, **2009**, 131, 9670-85	16.4	237
24	Catalytic 2,3,4-hexatriene formation by terminal alkyne coupling at calcium. *Chemical Communications*, **2009**, 2299-301	5.8	28
23	Beta-diketiminate C-H activation with heavier group 2 alkyls. *Dalton Transactions*, **2009**, 9715-7	4.3	24
22	Heavier group 2 metals and intermolecular hydroamination: a computational and synthetic assessment. *Journal of the American Chemical Society*, **2009**, 131, 12906-7	16.4	125
21	Beta-diketiminato calcium and magnesium amides; model complexes for hydroamination catalysis. *Inorganic Chemistry*, **2009**, 48, 4445-53	5.1	63
20	Heavier group 2 element-catalysed hydroamination of isocyanates. *Chemical Communications*, **2008**, 5206-8	5.8	51
19	□Diketiminato Calcium Acetylides: Synthesis, Solution Dimerization, and Catalytic Carbon□Carbon Bond Formation. *Organometallics*, **2008**, 27, 6300-6306	3.8	52
18	Triazenide complexes of the heavier alkaline earths: synthesis, characterization, and suitability for hydroamination catalysis. *Inorganic Chemistry*, **2008**, 47, 7366-76	5.1	127
17	Insertion reactions of beta-diketiminate-stabilised calcium amides with 1,3-dialkylcarbodiimides. *Dalton Transactions*, **2008**, 4474-81	4.3	25
16	Reversibility in the protonolysis of a beta-diketiminate stabilised calcium bis(trimethylsilyl)amide with benzylamine. *Dalton Transactions*, **2008**, 1292-4	4.3	23
15	Heavier Group 2 Element Catalyzed Hydrophosphination of Carbodiimides. *Organometallics*, **2008**, 27, 497-499	3.8	129
14	Synthesis, Characterization, and Solution Lability of N-Heterocyclic Carbene Adducts of the Heavier Group 2 Bis(trimethylsilyl)amides. *Organometallics*, **2008**, 27, 3939-3946	3.8	55
13	Bis(trimethylsilyl)methyl derivatives of calcium, strontium and barium: potentially useful dialkyls of the heavy alkaline earth elements. *Chemistry - A European Journal*, **2008**, 14, 11292-5	4.8	89
12	Heavier Group-2-Element Catalyzed Hydroamination of Carbodiimides. *European Journal of Inorganic Chemistry*, **2008**, 2008, 4173-4179	2.3	72
11	Reactions of □Diketiminate-Stabilized Calcium Amides with 9-Borabicyclo[3.3.1]nonane (9-BBN). *Organometallics*, **2007**, 26, 4076-4079	3.8	42
10	Heavier alkaline Earth amides as catalysts for the Tischenko reaction. *Organic Letters*, **2007**, 9, 331-3	6.2	95
9	Bis(diphenylphosphido) derivatives of the heavier group 2 elements. *Inorganic Chemistry*, **2007**, 46, 10410-5	5.1	35
8	Trifluoromethyl coordination and C-F bond activation at calcium. *Angewandte Chemie - International Edition*, **2007**, 46, 6339-42	16.4	59

7	Calcium-Catalyzed Intermolecular Hydrophosphination. *Organometallics*, **2007**, 26, 2953-2956	3.8	173
6	Reactivity of [HC{(C(Me)N(Dipp))}2Ca{N(SiMe3)2}(THF)] (Dipp = C6H3iPr2-2,6) with C□H acids: Synthesis of heteroleptic calcium □-organometallics. *Journal of Organometallic Chemistry*, **2006**, 691, 1242-1250	2.3	21
5	Calcium-mediated intramolecular hydroamination catalysis. *Journal of the American Chemical Society*, **2005**, 127, 2042-3	16.4	345
4	Kinetic stability of heteroleptic (beta-diketiminato) heavier alkaline-earth (Ca, Sr, Ba) amides. *Dalton Transactions*, **2005**, 278-84	4.3	91
3	Dimerization of □Diketiminato Calcium Complexes through Dihapto-Acetylide Ligation. *Organometallics*, **2005**, 24, 1184-1188	3.8	51
2	Solution- and solid-state characterisation of a configurationally-stable beta-diketiminato-supported calcium primary amide. *Dalton Transactions*, **2004**, 3166-8	4.3	38
1	Repurposing of F-gases: challenges and opportunities in fluorine chemistry. *Chemical Society Reviews*,	58.5	2