Matthew Gaunt

List of Publications by Year
in descending order

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114 papers	15,669 citations	21215 62 h-index	21843 118 g-index
173 all docs	173 docs citations	173 times ranked	9741 citing authors

#	Article	IF	Citations
1	Visible-Light-Mediated Modification and Manipulation of Biomacromolecules. Chemical Reviews, 2022, 122, 1752-1829.	23.0	93
2	The effect of chemical representation on active machine learning towards closed-loop optimization. Reaction Chemistry and Engineering, 2022, 7, 1368-1379.	1.9	20
3	Pd(II)-Catalyzed Enantioselective C(sp³)â€“H Arylation of Cyclopropanes and Cyclobutanes Guided by Tertiary Alkylamines. Journal of the American Chemical Society, 2022, 144, 3939-3948.	6.6	23
4	Visible light-mediated radical fluoromethylation via halogen atom transfer activation of fluoroiodomethane. Chemical Science, 2021, 12, 12812-12818.	3.7	25
5	Modular Photocatalytic Synthesis of Î±-Trialkyl-Î±-Tertiary Amines. Journal of the American Chemical Society, 2021, 143, 15946-15959.	6.6	30
6	Multicomponent alkene azidoarylation by anion-mediated dual catalysis. Nature, 2021, 598, 597-603.	13.7	32
7	Visible-Light-Mediated Carbonyl Alkylative Amination to All-Alkyl Î±-Tertiary Amino Acid Derivatives. Journal of the American Chemical Society, 2021, 143, 1598-1609.	6.6	39
8	Thiol-Mediated Î±-Amino Radical Formation via Visible-Light-Activated Ion-Pair Charge-Transfer Complexes. Journal of the American Chemical Society, 2021, 143, 19268-19274.	6.6	21
9	Rapid Syntheses of (â^')â€ FR901483 and (+)â€ TAN1251C Enabled by Complexityâ€ Generating Photocatalytic Olefin Hydroaminoalkylation. Angewandte Chemie - International Edition, 2020, 59, 2256-2261.	7.2	51
10	Catalytic C(sp3)â€“H bond activation in tertiary alkylamines. Nature Chemistry, 2020, 12, 76-81.	6.6	74
11	Rapid Syntheses of (â^')â€ FR901483 and (+)â€ TAN1251C Enabled by Complexityâ€ Generating Photocatalytic Olefin Hydroaminoalkylation. Angewandte Chemie, 2020, 132, 2276-2281.	1.6	17
12	Visible-light mediated carbonyl trifluoromethylative amination as a practical method for the synthesis of Î²-trifluoromethyl tertiary alkylamines. Chemical Science, 2020, 11, 12089-12094.	3.7	11
13	Synthesis and Reactivity of Stable Alkyl-Pd(IV) Complexes Relevant to Monodentate N-Directed C(sp3)â€“H Functionalization Processes. Journal of the American Chemical Society, 2020, 142, 14169-14177.	6.6	26
14	Selective Chemical Functionalization at N6-Methyladenosine Residues in DNA Enabled by Visible-Light-Mediated Photoredox Catalysis. Journal of the American Chemical Society, 2020, 142, 21484-21492.	6.6	24
15	A general carbonyl alkylative amination for tertiary amine synthesis. Nature, 2020, 581, 415-420.	13.7	92
16	New Strategies for the Transition-Metal Catalyzed Synthesis of Aliphatic Amines. Chemical Reviews, 2020, 120, 2613-2692.	23.0	510
17	Mechanistic investigation into the C(sp³)â€“H acetoxylation of morpholinones. Chemical Science, 2019, 10, 83-89.	3.7	25
18	Palladium-Catalyzed C(sp3)â€“H Bond Functionalization of Aliphatic Amines. CheM, 2019, 5, 1031-1058.	5.8	184

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19	Carboxylateâ€Assisted Oxidative Addition to Aminoalkyl Pd II Complexes: C(sp 3)â^'H Arylation of Alkylamines by Distinct Pd II /Pd IV Pathway. Angewandte Chemie, 2019, 131, 9152-9157.	1.6	5
20	Streamlined Synthesis of C(sp³)-Rich N-Heterospirocycles Enabled by Visible-Light-Mediated Photocatalysis. Journal of the American Chemical Society, 2019, 141, 8426-8430.	6.6	86
21	Carboxylateâ€Assisted Oxidative Addition to Aminoalkyl Pd^{II} Complexes: C(sp³)â^'H Arylation of Alkylamines by Distinct Pd^{II}/Pd^{IV} Pathway. Angewandte Chemie - International Edition, 2019, 58, 9054-9059.	7.2	37
22	Palladium(II)-Catalyzed C(sp3)â€“H Activation of N,O-Ketals towards a Method for the Î²-Functionalization of Ketones. Synlett, 2019, 30, 454-458.	1.0	10
23	A Class of Nâ€“O-Type Oxidants To Access High-Valent Palladium Species. Organometallics, 2019, 38, 143-148.	1.1	8
24	Selective Reductive Elimination at Alkyl Palladium(IV) by Dissociative Ligand Ionization: Catalytic C(sp³)â^'H Amination to Azetidines. Angewandte Chemie - International Edition, 2018, 57, 3178-3182.	7.2	52
25	Selective Reductive Elimination at Alkyl Palladium(IV) by Dissociative Ligand Ionization: Catalytic C(sp³)â^'H Amination to Azetidines. Angewandte Chemie, 2018, 130, 3232-3236.	1.6	11
26	Multicomponent synthesis of tertiary alkylamines by photocatalytic olefin-hydroaminoalkylation. Nature, 2018, 561, 522-527.	13.7	191
27	A protein functionalization platform based on selective reactions at methionine residues. Nature, 2018, 562, 563-568.	13.7	186
28	Diastereoselective Câ€“H carbonylative annulation of aliphatic amines: a rapid route to functionalized Î³-lactams. Chemical Science, 2018, 9, 7628-7633.	3.7	45
29	Palladium-Catalyzed Enantioselective Câ€“H Activation of Aliphatic Amines Using Chiral Anionic BINOL-Phosphoric Acid Ligands. Journal of the American Chemical Society, 2017, 139, 1412-1415.	6.6	151
30	Cobalt-catalysed Câ€“H carbonylative cyclisation of aliphatic amides. Chemical Science, 2017, 8, 2588-2591.	3.7	93
31	Ligand-assisted palladium-catalyzed Câ€“H alkenylation of aliphatic amines for the synthesis of functionalized pyrrolidines. Chemical Science, 2017, 8, 3586-3592.	3.7	52
32	Nickel steps towards selectivity. Nature, 2017, 545, 35-36.	13.7	2
33	Enantioselective Copper-Catalyzed Arylation-Driven Semipinacol Rearrangement of Tertiary Allylic Alcohols with Diaryliodonium Salts. Journal of the American Chemical Society, 2017, 139, 9160-9163.	6.6	95
34	The Î±-tertiary amine motif drives remarkable selectivity for Pd-catalyzed carbonylation of Î²-methylene Câ€“H bonds. Chemical Science, 2017, 8, 8198-8203.	3.7	55
35	Selective Palladium(II)â€Catalyzed Carbonylation of Methylene Î²â€Câ^'H Bonds in Aliphatic Amines. Angewandte Chemie, 2017, 129, 12120-12124.	1.6	18
36	Selective Palladium(II)â€Catalyzed Carbonylation of Methylene Î²â€Câ^'H Bonds in Aliphatic Amines. Angewandte Chemie - International Edition, 2017, 56, 11958-11962.	7.2	83

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37	Continuousâ€Flow Synthesis and Derivatization of Aziridines through Palladiumâ€Catalyzed C(sp³)â^'H Activation. Angewandte Chemie, 2016, 128, 9024-9029.	1.6	10
38	Continuousâ€Flow Synthesis and Derivatization of Aziridines through Palladiumâ€Catalyzed C(sp³)â^'H Activation. Angewandte Chemie - International Edition, 2016, 55, 8878-8883.	7.2	55
39	Enantioselective Cu-Catalyzed Arylation of Secondary Phosphine Oxides with Diaryliodonium Salts toward the Synthesis of P-Chiral Phosphines. Journal of the American Chemical Society, 2016, 138, 13183-13186.	6.6	147
40	A general catalytic Î²-Câ€“H carbonylation of aliphatic amines to Î²-lactams. Science, 2016, 354, 851-857.	6.0	195
41	The total synthesis of K-252c (staurosporinone) via a sequential Câ€“H functionalisation strategy. Chemical Science, 2016, 7, 2706-2710.	3.7	50
42	Rapid Generation of Complex Molecular Architectures by a Catalytic Enantioselective Dearomatization Strategy. Synlett, 2015, 27, e2-e2.	1.0	0
43	Callipeltosides A, B and C: Total Syntheses and Structural Confirmation. Chemistry - A European Journal, 2015, 21, 13261-13277.	1.7	28
44	Ligandâ€Enabled Catalytic Cï£¿H Arylation of Aliphatic Amines by a Fourâ€Memberedâ€Ring Cyclopalladation Pathway. Angewandte Chemie - International Edition, 2015, 54, 15840-15844.	7.2	110
45	Copperâ€Catalyzed Oxyâ€Alkenylation of Homoallylic Alcohols to Generate Functional synâ€1,3â€Diol Derivatives. Angewandte Chemie, 2015, 127, 7968-7972.	1.6	19
46	Copperâ€Catalyzed Oxyâ€Alkenylation of Homoallylic Alcohols to Generate Functional synâ€1,3â€Diol Derivatives. Angewandte Chemie - International Edition, 2015, 54, 7857-7861.	7.2	56
47	Ligandâ€Enabled Catalytic Cï£¿H Arylation of Aliphatic Amines by a Fourâ€Memberedâ€Ring Cyclopalladation Pathway. Angewandte Chemie, 2015, 127, 16066-16070.	1.6	28
48	Rapid Generation of Complex Molecular Architectures by a Catalytic Enantioselective Dearomatization Strategy. Synlett, 2015, 27, 116-120.	1.0	4
49	A Concise and Scalable Strategy for the Total Synthesis of Dictyodendrinâ€…B Based on Sequential Cï£¿H Functionalization. Angewandte Chemie - International Edition, 2015, 54, 5451-5455.	7.2	113
50	Enantioselective and Regiodivergent Copper-Catalyzed Electrophilic Arylation of Allylic Amides with Diaryliodonium Salts. Journal of the American Chemical Society, 2015, 137, 7986-7989.	6.6	98
51	Mechanistic Insights into the Palladium-Catalyzed Aziridination of Aliphatic Amines by Câ€“H Activation. Journal of the American Chemical Society, 2015, 137, 10632-10641.	6.6	104
52	Cluster Preface: Catalysis Using Sustainable Metals â€“ Part II. Synlett, 2015, 26, 306-306.	1.0	1
53	A steric tethering approach enables palladium-catalysed Câ€“H activation of primary amino alcohols. Nature Chemistry, 2015, 7, 1009-1016.	6.6	164
54	A counteranion triggered arylation strategy using diaryliodonium fluorides. Chemical Science, 2015, 6, 1277-1281.	3.7	72

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55	Catalysis Using Sustainable Metals â€“ Part I. Synlett, 2014, 25, 2715-2716.	1.0	0
56	Palladium-catalysed Câ€“H activation of aliphatic amines to give strained nitrogen heterocycles. Nature, 2014, 510, 129-133.	13.7	483
57	Gramâ€Scale Enantioselective Formal Synthesis of Morphine through an orthoâ€“para Oxidative Phenolic Coupling Strategy. Angewandte Chemie - International Edition, 2014, 53, 13498-13501.	7.2	46
58	Cu-Catalyzed Cascades to Carbocycles: Union of Diaryliodonium Salts with Alkenes or Alkynes Exploiting Remote Carbocations. Journal of the American Chemical Society, 2014, 136, 8851-8854.	6.6	149
59	Copperâ€Catalyzed Intramolecular Electrophilic Carbofunctionalization of Allylic Amides. Angewandte Chemie - International Edition, 2013, 52, 9284-9288.	7.2	101
60	Copper-Catalyzed Carboarylation of Alkynes via Vinyl Cations. Journal of the American Chemical Society, 2013, 135, 12532-12535.	6.6	142
61	Organocatalytic Câ€“H Bond Arylation of Aldehydes to Bis-heteroaryl Ketones. Journal of the American Chemical Society, 2013, 135, 3772-3775.	6.6	120
62	Copper-Catalyzed Electrophilic Carbofunctionalization of Alkynes to Highly Functionalized Tetrasubstituted Alkenes. Journal of the American Chemical Society, 2013, 135, 5332-5335.	6.6	197
63	Copperâ€Catalyzed Arylative Meyerâ€“Schuster Rearrangement of Propargylic Alcohols to Complex Enones Using Diaryliodonium Salts. Angewandte Chemie - International Edition, 2013, 52, 5799-5802.	7.2	129
64	Chemical Synthesis of Aspidosperma Alkaloids Inspired by the Reverse of the Biosynthesis of the Rhazinilam Family of Natural Products. Angewandte Chemie - International Edition, 2012, 51, 9288-9291.	7.2	79
65	Copper-Catalyzed Alkene Arylation with Diaryliodonium Salts. Journal of the American Chemical Society, 2012, 134, 10773-10776.	6.6	178
66	Catalytic enantioselective assembly of complex molecules containing embedded quaternary stereogenic centres from simple anisidine derivatives. Chemical Science, 2011, 2, 1487.	3.7	120
67	Amine directed Pd(ii)-catalyzed Câ€“H bond functionalization under ambient conditions. Chemical Science, 2011, 2, 312-315.	3.7	196
68	Metals are not the only catalysts. Nature, 2011, 470, 183-185.	13.7	5
69	Enantioselective Î±-Arylation of N-Acyloxazolidinones with Copper(II)-bisoxazoline Catalysts and Diaryliodonium Salts. Journal of the American Chemical Society, 2011, 133, 13778-13781.	6.6	217
70	Recent developments in natural product synthesis using metal-catalysed Câ€“H bond functionalisation. Chemical Society Reviews, 2011, 40, 1885.	18.7	1,508
71	A Highly Paraâ€Selective Copper(II)â€Catalyzed Direct Arylation of Aniline and Phenol Derivatives. Angewandte Chemie - International Edition, 2011, 50, 458-462.	7.2	315
72	Copper(II)â€Catalyzed metaâ€Selective Direct Arylation of Î±â€Aryl Carbonyl Compounds. Angewandte Chemie - International Edition, 2011, 50, 463-466.	7.2	282

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73	Palladium(II)â€Catalyzed Cï£¿H Bond Arylation of Electronâ€Deficient Arenes at Room Temperature. Angewandte Chemie - International Edition, 2011, 50, 1076-1079.	7.2	129
74	Alkynes to (E)-enolates using tandem catalysis: stereoselective anti-aldol and syn-[3,3]-rearrangement reactions. Tetrahedron, 2010, 66, 6429-6436.	1.0	45
75	Pd-Catalyzed Câ€“H Bond Functionalization on the Indole and Pyrrole Nucleus. Topics in Current Chemistry, 2009, 292, 85-121.	4.0	200
76	A Meta-Selective Copper-Catalyzed Câ€“H Bond Arylation. Science, 2009, 323, 1593-1597.	6.0	915
77	Synthesis of Rhazinicine by a Metalâ€Catalyzed Cï£¿H Bond Functionalization Strategy. Angewandte Chemie - International Edition, 2008, 47, 3004-3007.	7.2	244
78	Cu(II)-Catalyzed Direct and Site-Selective Arylation of Indoles Under Mild Conditions. Journal of the American Chemical Society, 2008, 130, 8172-8174.	6.6	745
79	Oxidative Pd(II)-Catalyzed Câˆ’H Bond Amination to Carbazole at Ambient Temperature. Journal of the American Chemical Society, 2008, 130, 16184-16186.	6.6	535
80	An Enantioselective Organocatalytic Oxidative Dearomatization Strategy. Journal of the American Chemical Society, 2008, 130, 404-405.	6.6	276
81	Recent Developments in the Use of Catalytic Asymmetric Ammonium Enolates in Chemical Synthesis. Chemical Reviews, 2007, 107, 5596-5605.	23.0	298
82	Enantioselective organocatalysis. Drug Discovery Today, 2007, 12, 8-27.	3.2	561
83	Mild Aerobic Oxidative Palladium (II) Catalyzed Câˆ’H Bond Functionalization:Â Regioselective and Switchable Câˆ’H Alkenylation and Annulation of Pyrroles. Journal of the American Chemical Society, 2006, 128, 2528-2529.	6.6	360
84	Double Conjugate Addition of Dithiols to Propargylic Carbonyl Systems To Generate Protected 1,3-Dicarbonyl Compounds. Journal of Organic Chemistry, 2006, 71, 2715-2725.	1.7	36
85	Novel Anti-Markovnikov Regioselectivity in the Wacker Reaction of Styrenes. Chemistry - A European Journal, 2006, 12, 949-955.	1.7	96
86	Organocatalytic Sigmatropic Reactions: Development of a [2,3] Wittig Rearrangement through Secondary Amine Catalysis. Angewandte Chemie - International Edition, 2006, 45, 2116-2119.	7.2	58
87	Enantioselective Catalytic Intramolecular Cyclopropanation using Modified Cinchona Alkaloid Organocatalysts. Angewandte Chemie - International Edition, 2006, 45, 6024-6028.	7.2	195
88	Palladium-Catalyzed Intermolecular Alkenylation of Indoles by Solvent-Controlled Regioselective Cï£¿H Functionalization. Angewandte Chemie - International Edition, 2005, 44, 3125-3129.	7.2	594
89	Total Synthesis of Spongistatin 1: A Synthetic Strategy Exploiting Its Latent Pseudo-Symmetry. Angewandte Chemie - International Edition, 2005, 44, 5433-5438.	7.2	74
90	Enantioselective Organocatalytic Cyclopropanation via Ammonium Ylides.. ChemInform, 2005, 36, no.	0.1	0

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91	Palladium-Catalyzed Intermolecular Alkenylation of Indoles by Solvent-Controlled Regioselective C-H Functionalization.. ChemInform, 2005, 36, no.	0.1	0
92	Synthesis of the EF Fragment of Spongistatin 1. Synlett, 2005, 2005, 2031-2034.	1.0	2
93	An Intramolecular Organocatalytic Cyclopropanation Reaction. Angewandte Chemie - International Edition, 2004, 43, 2681-2684.	7.2	165
94	Enantioselective Organocatalytic Cyclopropanation via Ammonium Ylides. Angewandte Chemie - International Edition, 2004, 43, 4641-4644.	7.2	259
95	Multicomponent Linchpin Couplings. Reaction of Dithiane Anions with Terminal Epoxides, Epichlorohydrin, and Vinyl Epoxides: Efficient, Rapid, and Stereocontrolled Assembly of Advanced Fragments for Complex Molecule Synthesis.. ChemInform, 2004, 35, no.	0.1	0
96	An Intramolecular Organocatalytic Cyclopropanation Reaction.. ChemInform, 2004, 35, no.	0.1	0
97	Organic-Catalyst-Mediated Cyclopropanation Reaction. Angewandte Chemie, 2003, 115, 852-855.	1.6	26
98	Development of Î²-Keto 1,3-Dithianes as Versatile Intermediates for Organic Synthesis.. ChemInform, 2003, 34, no.	0.1	0
99	Organic Catalyst Mediated Cyclopropanation Reaction.. ChemInform, 2003, 34, no.	0.1	0
100	Organic-Catalyst-Mediated Cyclopropanation Reaction. Angewandte Chemie - International Edition, 2003, 42, 828-831.	7.2	173
101	Addition of Dithiols to Bis-Ynones:â€‰ Development of a Versatile Platform for the Synthesis of Polyketide Natural Products. Organic Letters, 2003, 5, 1147-1150.	2.4	49
102	Synthesis of the C-1â^'C-28 ABCD Unit of Spongistatin 1. Organic Letters, 2003, 5, 4819-4822.	2.4	91
103	Multicomponent Linchpin Couplings. Reaction of Dithiane Anions with Terminal Epoxides, Epichlorohydrin, and Vinyl Epoxides:Â Efficient, Rapid, and Stereocontrolled Assembly of Advanced Fragments for Complex Molecule Synthesis. Journal of the American Chemical Society, 2003, 125, 14435-14445.	6.6	119
104	Development of Î²-keto 1,3-dithianes as versatile intermediates for organic synthesis. Organic and Biomolecular Chemistry, 2003, 1, 15-16.	1.5	74
105	A Practical and Efficient Synthesis of the C-16â^'C-28 Spiroketal Fragment (CD) of the Spongistatins. Organic Letters, 2003, 5, 4815-4818.	2.4	52
106	Highlights from the 38th ESF/EUCHEM Conference on Stereochemistry, BÃ¼rgenstock, Switzerland, April/May 2003. Chemical Communications, 2003, , 2253-2255.	2.2	0
107	Dithiane Additions to Vinyl Epoxides:Â Steric Control over the SN2 and SN2â€˜ Manifolds. Journal of the American Chemical Society, 2002, 124, 14516-14517.	6.6	46
108	Convenient Preparation of trans-Arylalkenes via Palladium(II)-Catalyzed Isomerization of cis-Arylalkenes. Journal of Organic Chemistry, 2002, 67, 4627-4629.	1.7	151

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109	Convenient Preparation of transâ€Arylalkenes via Palladium(II)â€Catalyzed Isomerization of cisâ€Arylalkenes.. ChemInform, 2002, 33, 58-58.	0.1	0
110	Derailing the Wacker Oxidation:â€‰ Development of a Palladium-Catalyzed Amidation Reaction. Organic Letters, 2001, 3, 25-28.	2.4	86
111	Evidence that the availability of an allylic hydrogen governs the regioselectivity of the Wacker oxidation. Chemical Communications, 2001, , 1844-1845.	2.2	31
112	Selective Hydrogenolysis of Novel Benzyl Carbamate Protecting Groups. Organic Letters, 2000, 2, 1049-1051.	2.4	36
113	Preferential hydrogenolysis of NAP esters provides a new orthogonal protecting group strategy for carboxylic acids. Tetrahedron Letters, 1999, 40, 1803-1806.	0.7	27
114	Rational Design of Benzyl-Type Protecting Groups Allows Sequential Deprotection of Hydroxyl Groups by Catalytic Hydrogenolysis. Journal of Organic Chemistry, 1998, 63, 4172-4173.	1.7	193