Matthew S Sigman

List of Publications by Year
in descending order

235 papers	23,845 citations	5248 83 h-index	9073 144 g-index
254 all docs	254 docs citations	254 times ranked	14601 citing authors

#	Article	IF	Citations
1	Advances in Transition Metal (Pd,Ni,Fe)-Catalyzed Cross-Coupling Reactions Using Alkyl-organometallics as Reaction Partners. Chemical Reviews, 2011, 111, 1417-1492.	23.0	1,876
2	Schiff Base Catalysts for the Asymmetric Strecker Reaction Identified and Optimized from Parallel Synthetic Libraries. Journal of the American Chemical Society, 1998, 120, 4901-4902.	6.6	873
3	Exploiting non-covalent Ï€ interactions for catalyst design. Nature, 2017, 543, 637-646.	13.7	583
4	Ligand-Modulated Palladium-Catalyzed Aerobic Alcohol Oxidations. Accounts of Chemical Research, 2006, 39, 221-229.	7.6	558
5	Substrate channelling as an approach to cascade reactions. Nature Chemistry, 2016, 8, 299-309.	6.6	514
6	A General Catalyst for the Asymmetric Strecker Reaction. Angewandte Chemie - International Edition, 2000, 39, 1279-1281.	7.2	433
7	Enantioselective Heck Arylations of Acyclic Alkenyl Alcohols Using a Redox-Relay Strategy. Science, 2012, 338, 1455-1458.	6.0	403
8	Mechanistic approaches to palladium-catalyzed alkene difunctionalization reactions. Organic and Biomolecular Chemistry, 2008, 6, 4083.	1.5	394
9	Enantioselective construction of remote quaternary stereocentres. Nature, 2014, 508, 340-344.	13.7	393
10	Palladium-Catalyzed Enantioselective Oxidations of Alcohols Using Molecular Oxygen. Journal of the American Chemical Society, 2001, 123, 7475-7476.	6.6	342
11	Applications of ortho-Quinone Methide Intermediates in Catalysis and Asymmetric Synthesis. Journal of Organic Chemistry, 2011, 76, 9210-9215.	1.7	307
12	Enantioselective Addition of Hydrogen Cyanide to Imines Catalyzed by a Chiral (Salen)Al(III) Complex. Journal of the American Chemical Society, 1998, 120, 5315-5316.	6.6	299
13	A Well-Defined Complex for Palladium-Catalyzed Aerobic Oxidation of Alcohols: Design, Synthesis, and Mechanistic Considerations. Angewandte Chemie - International Edition, 2003, 42, 3810-3813.	7.2	284
14	The Development of Multidimensional Analysis Tools for Asymmetric Catalysis and Beyond. Accounts of Chemical Research, 2016, 49, 1292-1301.	7.6	279
15	A synthetic chemist's guide to electroanalytical tools for studying reaction mechanisms. Chemical Science, 2019, 10, 6404-6422.	3.7	255
16	Predictive and mechanistic multivariate linear regression models for reaction development. Chemical Science, 2018, 9, 2398-2412.	3.7	248
17	Elucidating the Significance of Î²-Hydride Elimination and the Dynamic Role of Acid/Base Chemistry in a Palladium-Catalyzed Aerobic Oxidation of Alcohols. Journal of the American Chemical Society, 2004, 126, 9724-9734.	6.6	235
18	Palladium(II)-Catalyzed Enantioselective Aerobic Dialkoxylation of 2-Propenyl Phenols:Â A Pronounced Effect of Copper Additives on Enantioselectivity. Journal of the American Chemical Society, 2007, 129, 3076-3077.	6.6	232

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19	Enantioselective Redox-Relay Oxidative Heck Arylations of Acyclic Alkenyl Alcohols using Boronic Acids. Journal of the American Chemical Society, 2013, 135, 6830-6833.	6.6	230
20	A Palladium-Catalyzed Three-Component Cross-Coupling of Conjugated Dienes or Terminal Alkenes with Vinyl Triflates and Boronic Acids. Journal of the American Chemical Society, 2011, 133, 5784-5787.	6.6	228
21	Multidimensional steric parameters in the analysis of asymmetric catalytic reactions. Nature Chemistry, 2012, 4, 366-374.	6.6	225
22	Synthesis and Preliminary Biological Studies of 3-Substituted Indoles Accessed by a Palladium-Catalyzed Enantioselective Alkene Difunctionalization Reaction. Journal of the American Chemical Society, 2010, 132, 7870-7871.	6.6	222
23	Nickel-Catalyzed Enantioselective Reductive Cross-Coupling of Styrenyl Aziridines. Journal of the American Chemical Society, 2017, 139, 5688-5691.	6.6	214
24	Recent Progress in Wacker Oxidations:Â Moving toward Molecular Oxygen as the Sole Oxidant. Inorganic Chemistry, 2007, 46, 1903-1909.	1.9	209
25	Mechanistic Questions about the Reaction of Molecular Oxygen with Palladium in Oxidase Catalysis. Angewandte Chemie - International Edition, 2006, 45, 6612-6615.	7.2	203
26	Holistic prediction of enantioselectivity in asymmetric catalysis. Nature, 2019, 571, 343-348.	13.7	190
27	Imparting Catalyst Control upon Classical Palladium-Catalyzed Alkenyl Câ€“H Bond Functionalization Reactions. Accounts of Chemical Research, 2012, 45, 874-884.	7.6	189
28	Pursuit of Noncovalent Interactions for Strategic Site-Selective Catalysis. Accounts of Chemical Research, 2017, 50, 609-615.	7.6	188
29	Mechanism, Reactivity, and Selectivity in Palladium-Catalyzed Redox-Relay Heck Arylations of Alkenyl Alcohols. Journal of the American Chemical Society, 2014, 136, 1960-1967.	6.6	187
30	Three-Dimensional Correlation of Steric and Electronic Free Energy Relationships Guides Asymmetric Propargylation. Science, 2011, 333, 1875-1878.	6.0	185
31	A data-intensive approach to mechanistic elucidation applied to chiral anion catalysis. Science, 2015, 347, 737-743.	6.0	185
32	Parameterization of phosphine ligands reveals mechanistic pathways and predicts reaction outcomes. Nature Chemistry, 2016, 8, 610-617.	6.6	177
33	Palladiumâ€Catalyzed Oxidative Intermolecular Difunctionalization of Terminal Alkenes with Organostannanes and Molecular Oxygen. Angewandte Chemie - International Edition, 2009, 48, 3146-3149.	7.2	173
34	Development and Comparison of the Substrate Scope of Pd-Catalysts for the Aerobic Oxidation of Alcohols. Journal of Organic Chemistry, 2005, 70, 3343-3352.	1.7	169
35	Palladium Catalysts for Aerobic Oxidative Kinetic Resolution of Secondary Alcohols Based on Mechanistic Insight. Organic Letters, 2003, 5, 63-65.	2.4	168
36	Physical Organic Approach to Persistent, Cyclable, Low-Potential Electrolytes for Flow Battery Applications. Journal of the American Chemical Society, 2017, 139, 2924-2927.	6.6	165

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37	Advancing the Mechanistic Understanding of an Enantioselective Palladium-Catalyzed Alkene Difunctionalization Reaction. Journal of the American Chemical Society, 2010, 132, 17471-17482.	6.6	158
38	Enantioselective Dehydrogenative Heck Arylations of Trisubstituted Alkenes with Indoles to Construct Quaternary Stereocenters. Journal of the American Chemical Society, 2015, 137, 15668-15671.	6.6	158
39	Discovery of and Mechanistic Insight into a Ligand-Modulated Palladium-Catalyzed Wacker Oxidation of Styrenes Using TBHP. Journal of the American Chemical Society, 2005, 127, 2796-2797.	6.6	152
40	Palladium-Catalyzed Enantioselective Addition of Two Distinct Nucleophiles across Alkenes Capable of Quinone Methide Formation. Journal of the American Chemical Society, 2009, 131, 17074-17075.	6.6	151
41	Palladium-Catalyzed 1,4-Difunctionalization of Butadiene To Form Skipped Polyenes. Journal of the American Chemical Society, 2013, 135, 4167-4170.	6.6	150
42	Analyzing Site Selectivity in Rh₂(esp)₂-Catalyzed Intermolecular Câ€“H Amination Reactions. Journal of the American Chemical Society, 2014, 136, 5783-5789.	6.6	141
43	Zebrafish screen identifies novel compound with selective toxicity against leukemia. Blood, 2012, 119, 5621-5631.	0.6	138
44	Operationally Simple and Highly (E)-Styrenyl-Selective Heck Reactions of Electronically Nonbiased Olefins. Journal of the American Chemical Society, 2011, 133, 9692-9695.	6.6	137
45	A Highly Selective and General Palladium Catalyst for the Oxidative Heck Reaction of Electronically Nonbiased Olefins. Journal of the American Chemical Society, 2010, 132, 13981-13983.	6.6	136
46	High-Performance Oligomeric Catholytes for Effective Macromolecular Separation in Nonaqueous Redox Flow Batteries. ACS Central Science, 2018, 4, 189-196.	5.3	134
47	Enantiodivergent Pd-catalyzed Câ€“C bond formation enabled through ligand parameterization. Science, 2018, 362, 670-674.	6.0	134
48	Oxygen-Induced Ligand Dehydrogenation of a Planar Bis-Î¼-Chloronickel(I) Dimer Featuring an NHC Ligand. Inorganic Chemistry, 2005, 44, 3774-3776.	1.9	128
49	Interrogating selectivity in catalysis using molecular vibrations. Nature, 2014, 507, 210-214.	13.7	128
50	Using Mechanistic and Computational Studies To Explain Ligand Effects in the Palladium-Catalyzed Aerobic Oxidation of Alcohols. Journal of the American Chemical Society, 2005, 127, 8499-8507.	6.6	127
51	Palladium-Catalyzed Enantioselective Heck Alkenylation of Acyclic Alkenols Using a Redox-Relay Strategy. Journal of the American Chemical Society, 2015, 137, 3462-3465.	6.6	126
52	The renaissance of palladium(ii)-catalyzed oxidation chemistry. Organic and Biomolecular Chemistry, 2004, 2, 2551.	1.5	123
53	Disparate Catalytic Scaffolds for Atroposelective Cyclodehydration. Journal of the American Chemical Society, 2019, 141, 6698-6705.	6.6	120
54	Dual Role of (â^')-Sparteine in the Palladium-Catalyzed Aerobic Oxidative Kinetic Resolution of Secondary Alcohols. Journal of the American Chemical Society, 2002, 124, 8202-8203.	6.6	118

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55	A Palladium-Catalyzed Three-Component-Coupling Strategy for the Differential Vicinal Diarylation of Terminal 1,3-Dienes. Organic Letters, 2014, 16, 4666-4669.	2.4	118
56	Design and Synthesis of Modular Oxazoline Ligands for the Enantioselective Chromium-Catalyzed Addition of Allyl Bromide to Ketones. Journal of the American Chemical Society, 2007, 129, 2752-2753.	6.6	117
57	Enantiodivergent Fluorination of Allylic Alcohols: Data Set Design Reveals Structural Interplay between Achiral Directing Group and Chiral Anion. Journal of the American Chemical Society, 2016, 138, 3863-3875.	6.6	116
58	Mechanistic Investigations of the Palladium-Catalyzed Aerobic Oxidative Kinetic Resolution of Secondary Alcohols Using (â^')-Sparteine. Journal of the American Chemical Society, 2003, 125, 7005-7013.	6.6	115
59	A General and Efficient Catalyst System for a Wacker-Type Oxidation Using TBHP as the Terminal Oxidant: Application to Classically Challenging Substrates. Journal of the American Chemical Society, 2009, 131, 6076-6077.	6.6	115
60	Development and Analysis of a Pd(0)-Catalyzed Enantioselective 1,1-Diarylation of Acrylates Enabled by Chiral Anion Phase Transfer. Journal of the American Chemical Society, 2016, 138, 15877-15880.	6.6	113
61	Discovery of a Practical Direct O2-Coupled Wacker Oxidation with Pd[(â^')-sparteine]Cl2. Organic Letters, 2006, 8, 4117-4120.	2.4	111
62	Alkenyl Carbonyl Derivatives in Enantioselective Redox Relay Heck Reactions: Accessing Î±,Î²-Unsaturated Systems. Journal of the American Chemical Society, 2015, 137, 7290-7293.	6.6	111
63	Photophysics of 2'-Deoxyuridine (dU) Nucleosides Covalently Substituted with Either 1-Pyrenyl or 1-Pyrenoyl: Observation of Pyrene-to-Nucleoside Charge-Transfer Emission in 5-(1-Pyrenyl)-dU. Journal of the American Chemical Society, 1995, 117, 9119-9128.	6.6	110
64	Palladium-Catalyzed 1,1-Difunctionalization of Ethylene. Journal of the American Chemical Society, 2012, 134, 11372-11375.	6.6	110
65	Palladium-Catalyzed Hydroarylation of 1,3-Dienes with Boronic Esters via Reductive Formation of Ï€-Allyl Palladium Intermediates under Oxidative Conditions. Journal of the American Chemical Society, 2010, 132, 10209-10211.	6.6	108
66	Hybrid Enzymatic and Organic Electrocatalytic Cascade for the Complete Oxidation of Glycerol. Journal of the American Chemical Society, 2014, 136, 15917-15920.	6.6	104
67	Systematically Probing the Effect of Catalyst Acidity in a Hydrogen-Bond-Catalyzed Enantioselective Reaction. Angewandte Chemie - International Edition, 2007, 46, 4748-4750.	7.2	101
68	Mechanism-Based Design of a High-Potential Catholyte Enables a 3.2 V All-Organic Nonaqueous Redox Flow Battery. Journal of the American Chemical Society, 2019, 141, 15301-15306.	6.6	101
69	Comparing quantitative prediction methods for the discovery of small-molecule chiral catalysts. Nature Reviews Chemistry, 2018, 2, 290-305.	13.8	100
70	Palladium(II)-Catalyzed Aerobic Dialkoxylation of Styrenes:Â A Profound Influence of ano-Phenol. Journal of the American Chemical Society, 2006, 128, 1460-1461.	6.6	98
71	On the Mechanism of the Palladium-Catalyzed tert-Butylhydroperoxide-Mediated Wacker-Type Oxidation of Alkenes Using Quinoline-2-Oxazoline Ligands. Journal of the American Chemical Society, 2011, 133, 8317-8325.	6.6	98
72	Pd(0)-Catalyzed 1,1-Diarylation of Ethylene and Allylic Carbonates. Organic Letters, 2013, 15, 5008-5011.	2.4	97

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73	Univariate classification of phosphine ligation state and reactivity in cross-coupling catalysis. Science, 2021, 374, 301-308.	6.0	97
74	A Comprehensive Discovery Platform for Organophosphorus Ligands for Catalysis. Journal of the American Chemical Society, 2022, 144, 1205-1217.	6.6	97
75	Palladium-Catalyzed Reductive Coupling of Styrenes and Organostannanes under Aerobic Conditions. Journal of the American Chemical Society, 2007, 129, 14193-14195.	6.6	96
76	Transitionâ€Metalâ€Catalyzed Laboratoryâ€Scale Carbonâ€“Carbon Bondâ€Forming Reactions of Ethylene. Angewandte Chemie - International Edition, 2013, 52, 11206-11220.	7.2	96
77	Investigating the Nature of Palladium Chain-Walking in the Enantioselective Redox-Relay Heck Reaction of Alkenyl Alcohols. Journal of Organic Chemistry, 2014, 79, 11841-11850.	1.7	95
78	Design of Hydrogen Bond Catalysts Based on a Modular Oxazoline Template:â€‰ Application to an Enantioselective Hetero Dielsâ^'Alder Reaction. Organic Letters, 2005, 7, 5473-5475.	2.4	94
79	Palladium-Catalyzed Allylic Cross-Coupling Reactions of Primary and Secondary Homoallylic Electrophiles. Journal of the American Chemical Society, 2012, 134, 11408-11411.	6.6	94
80	Palladium-Catalyzed Enantioselective Redox-Relay Heck Arylation of 1,1-Disubstituted Homoallylic Alcohols. Journal of the American Chemical Society, 2016, 138, 11461-11464.	6.6	94
81	Data-science driven autonomous process optimization. Communications Chemistry, 2021, 4, .	2.0	94
82	Scope of Enantioselective Palladium(II)-Catalyzed Aerobic Alcohol Oxidations with (â^')-Sparteine. Journal of Organic Chemistry, 2003, 68, 4600-4603.	1.7	91
83	Predicting Electrocatalytic Properties: Modeling Structureâ€“Activity Relationships of Nitroxyl Radicals. Journal of the American Chemical Society, 2015, 137, 16179-16186.	6.6	91
84	Synthesis of Highly Functionalized Tri- and Tetrasubstituted Alkenes via Pd-Catalyzed 1,2-Hydrovinylation of Terminal 1,3-Dienes. Journal of the American Chemical Society, 2015, 137, 608-611.	6.6	91
85	Palladium(II)-Catalyzed Aerobic Hydroalkoxylation of Styrenes Containing a Phenol. Journal of the American Chemical Society, 2006, 128, 2794-2795.	6.6	90
86	Palladium(II)-Catalyzed Enantio- and Diastereoselective Synthesis of Pyrrolidine Derivatives. Organic Letters, 2012, 14, 4074-4077.	2.4	90
87	Unusual Reactivity of Molecular Oxygen with Ï€-Allylnickel(N-heterocyclic carbene) Chloride Complexes. Journal of the American Chemical Society, 2003, 125, 872-873.	6.6	88
88	Enantioselective Palladium-Catalyzed Alkenylation of Trisubstituted Alkenols To Form Allylic Quaternary Centers. Journal of the American Chemical Society, 2016, 138, 14226-14229.	6.6	88
89	Quantitatively Correlating the Effect of Ligandâ€Substituent Size in Asymmetric Catalysis Using Linear Free Energy Relationships. Angewandte Chemie - International Edition, 2008, 47, 771-774.	7.2	87
90	Parametrization of Non-covalent Interactions for Transition State Interrogation Applied to Asymmetric Catalysis. Journal of the American Chemical Society, 2017, 139, 6803-6806.	6.6	87

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91	Mechanistic Investigations of the Pd(0)-Catalyzed Enantioselective 1,1-Diarylation of Benzyl Acrylates. Journal of the American Chemical Society, 2017, 139, 12688-12695.	6.6	85
92	Examination of the Role of Taft-Type Steric Parameters in Asymmetric Catalysis. Journal of Organic Chemistry, 2009, 74, 7633-7643.	1.7	84
93	Asymmetric palladium-catalyzed hydroarylation of styrenes and dienes. Tetrahedron, 2011, 67, 4435-4441.	1.0	84
94	Stereochemical Diversity in Chiral Ligand Design:â€‰ Discovery and Optimization of Catalysts for the Enantioselective Addition of Allylic Halides to Aldehydes. Organic Letters, 2005, 7, 1837-1839.	2.4	83
95	Parameterization of Acyclic Diaminocarbene Ligands Applied to a Gold(I)-Catalyzed Enantioselective Tandem Rearrangement/Cyclization. Journal of the American Chemical Society, 2017, 139, 12943-12946.	6.6	82
96	Cobalt-Catalyzed Cyclotrimerization of Alkynes in Aqueous Solution. Journal of the American Chemical Society, 1998, 120, 5130-5131.	6.6	81
97	Pd^{II}-Catalyzed Oxidative 1,1-Diarylation of Terminal Olefins. Organic Letters, 2010, 12, 2848-2851.	2.4	79
98	Predicting and optimizing asymmetric catalyst performance using the principles of experimental design and steric parameters. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 2179-2183.	3.3	79
99	Using Physical Organic Parameters To Correlate Asymmetric Catalyst Performance. Journal of Organic Chemistry, 2013, 78, 2813-2818.	1.7	77
100	Palladium-Catalyzed Aerobic Oxidative Kinetic Resolution of Alcohols with an Achiral Exogenous Base. Journal of Organic Chemistry, 2003, 68, 7535-7537.	1.7	76
101	Quantitatively Analyzing Metathesis Catalyst Activity and Structural Features in Silica-Supported Tungsten Imidoâ€“Alkylidene Complexes. Journal of the American Chemical Society, 2015, 137, 6699-6704.	6.6	76
102	Developing a Modern Approach To Account for Steric Effects in Hammett-Type Correlations. Journal of the American Chemical Society, 2016, 138, 13424-13430.	6.6	76
103	The development and mechanistic investigation of a palladium-catalyzed 1,3-arylfluorination of chromenes. Chemical Science, 2017, 8, 2890-2897.	3.7	76
104	Developing Comprehensive Computational Parameter Sets To Describe the Performance of Pyridine-Oxazoline and Related Ligands. ACS Catalysis, 2017, 7, 4144-4151.	5.5	76
105	Carbon Atom Insertion into Pyrroles and Indoles Promoted by Chlorodiazirines. Journal of the American Chemical Society, 2021, 143, 11337-11344.	6.6	76
106	Enantioselective construction of remote tertiary carbonâ€“fluorine bonds. Nature Chemistry, 2019, 11, 710-715.	6.6	75
107	Prediction of Catalyst and Substrate Performance in the Enantioselective Propargylation of Aliphatic Ketones by a Multidimensional Model of Steric Effects. Journal of the American Chemical Society, 2013, 135, 2482-2485.	6.6	74
108	Ruthenium-Catalyzed Câ€“H Hydroxylation in Aqueous Acid Enables Selective Functionalization of Amine Derivatives. Journal of the American Chemical Society, 2017, 139, 9503-9506.	6.6	71

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109	Exploiting and Understanding the Selectivity of Ru-N-Heterocyclic Carbene Metathesis Catalysts for the Ethenolysis of Cyclic Olefins to Î±,Ï‰-Dienes. Journal of the American Chemical Society, 2017, 139, 13117-13125.	6.6	70
110	Catalytic Iron-Mediated [4 + 1] Cycloaddition of Diallenes with Carbon Monoxide. Journal of the American Chemical Society, 1996, 118, 11783-11788.	6.6	69
111	Palladium-Catalyzed Enantioselective Relay Heck Arylation of Enelactams: Accessing Î±,Î²-Unsaturated Î´-Lactams. Journal of the American Chemical Society, 2018, 140, 6527-6530.	6.6	69
112	Synthesis and preliminary biological study of bisindolylmethanes accessed by an acid-catalyzed hydroarylation of vinyl indoles. Tetrahedron, 2012, 68, 5203-5208.	1.0	68
113	Predictive Multivariate Linear Regression Analysis Guides Successful Catalytic Enantioselective Minisci Reactions of Diazines. Journal of the American Chemical Society, 2019, 141, 19178-19185.	6.6	68
114	Modular Synthesis of Amine-Functionalized Oxazolines. Organic Letters, 2002, 4, 3399-3401.	2.4	67
115	Wacker-Type Oxidation of Internal Alkenes using Pd(Quinox) and TBHP. Journal of Organic Chemistry, 2013, 78, 1682-1686.	1.7	67
116	Catalytic iron-mediated carbon-oxygen and carbon-carbon bond formation in [4 + 1] assembly of alkylidenebutenolides. Journal of the American Chemical Society, 1993, 115, 7545-7546.	6.6	65
117	Palladiumâ€Catalyzed Enantioselective Redoxâ€Relay Heck Alkynylation of Alkenols To Access Propargylic Stereocenters. Angewandte Chemie - International Edition, 2017, 56, 6651-6654.	7.2	65
118	Cobalt-electrocatalytic HAT for functionalization of unsaturated Câ€“C bonds. Nature, 2022, 605, 687-695.	13.7	65
119	Designer substrate library for quantitative, predictive modeling of reaction performance. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14698-14703.	3.3	64
120	Development and investigation of a site selective palladium-catalyzed 1,4-difunctionalization of isoprene using pyridineâ€“oxazoline ligands. Chemical Science, 2015, 6, 1355-1361.	3.7	63
121	Uncovering Subtle Ligand Effects of Phosphines Using Gold(I) Catalysis. ACS Catalysis, 2017, 7, 3973-3978.	5.5	63
122	Developing a Predictive Solubility Model for Monomeric and Oligomeric Cyclopropenium-Based Flow Battery Catholytes. Journal of the American Chemical Society, 2019, 141, 10171-10176.	6.6	63
123	Catalytic Carbonyl-Olefin Metathesis of Aliphatic Ketones: Iron(III) Homo-Dimers as Lewis Acidic Superelectrophiles. Journal of the American Chemical Society, 2019, 141, 1690-1700.	6.6	63
124	Conformational Dynamics in Asymmetric Catalysis: Is Catalyst Flexibility a Design Element?. Synthesis, 2019, 51, 1021-1036.	1.2	62
125	N-Ammonium Ylide Mediators for Electrochemical Câ€“H Oxidation. Journal of the American Chemical Society, 2021, 143, 7859-7867.	6.6	62
126	TEMPO-Modified Linear Poly(ethylenimine) for Immobilization-Enhanced Electrocatalytic Oxidation of Alcohols. ACS Catalysis, 2015, 5, 5519-5524.	5.5	61

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127	Evaluation of Catalyst Acidity and Substrate Electronic Effects in a Hydrogen Bond-Catalyzed Enantioselective Reaction. Journal of Organic Chemistry, 2010, 75, 7194-7201.	1.7	60
128	Organometallic nonlinear optical polymers. 3. Copolymerization of bridged bis(ferrocenyl) and bis(cyanoacetate) monomers via the Knoevenagel condensation. Macromolecules, 1992, 25, 6055-6058.	2.2	59
129	Origin of Enantioselection in Chiral Alcohol Oxidation Catalyzed by Pd[(â^')-sparteine]Cl2. Journal of the American Chemical Society, 2005, 127, 14817-14824.	6.6	59
130	Experimental and Computational Study of a Direct O₂-Coupled Wacker Oxidation: Water Dependence in the Absence of Cu Salts. Journal of the American Chemical Society, 2010, 132, 11872-11874.	6.6	58
131	Investigating the Role of Ligand Electronics on Stabilizing Electrocatalytically Relevant Low-Valent Co(I) Intermediates. Journal of the American Chemical Society, 2019, 141, 1382-1392.	6.6	58
132	The Evolution of Data-Driven Modeling in Organic Chemistry. ACS Central Science, 2021, 7, 1622-1637.	5.3	58
133	Palladium-Catalyzed Hydrofunctionalization of Vinyl Phenol Derivatives with Heteroaromatics. Organic Letters, 2011, 13, 2774-2777.	2.4	57
134	Parameterization and Analysis of Peptide-Based Catalysts for the Atroposelective Bromination of 3-Arylquinazolin-4(3H)-ones. Journal of the American Chemical Society, 2018, 140, 868-871.	6.6	57
135	Steric Effects in the Aerobic Oxidation of Ï€-Allylnickel(II) Complexes with N-Heterocyclic Carbenes. Inorganic Chemistry, 2006, 45, 8430-8441.	1.9	56
136	A Physical Organic Approach to Tuning Reagents for Selective and Stable Methionine Bioconjugation. Journal of the American Chemical Society, 2019, 141, 12657-12662.	6.6	56
137	Enantioselective Heckâ€“Matsuda Arylations through Chiral Anion Phaseâ€Transfer of Aryl Diazonium Salts. Angewandte Chemie - International Edition, 2017, 56, 5806-5811.	7.2	54
138	Rapid chemiexcitation of phenoxy-dioxetane luminophores yields ultrasensitive chemiluminescence assays. Chemical Science, 2019, 10, 1380-1385.	3.7	53
139	Linear Free-Energy Relationship Analysis of a Catalytic Desymmetrization Reaction of a Diarylmethane-bis(phenol). Organic Letters, 2010, 12, 2794-2797.	2.4	52
140	The First Iron-Mediated Catalytic Carbon-Nitrogen Bond Formation: [4 + 1] Cycloaddition of Allenyl Imines and Carbon Monoxide. Journal of Organic Chemistry, 1994, 59, 7488-7491.	1.7	51
141	Enantioselective Allenoate-Claisen Rearrangement Using Chiral Phosphate Catalysts. Journal of the American Chemical Society, 2020, 142, 6390-6399.	6.6	50
142	Development and Mechanistic Interrogation of Interrupted Chain-Walking in the Enantioselective Relay Heck Reaction. Journal of the American Chemical Society, 2020, 142, 10516-10525.	6.6	49
143	Diastereoselective Synthesis of Piperazines by Manganese-Mediated Reductive Cyclization. Organic Letters, 2003, 5, 1591-1594.	2.4	48
144	Pd(II)-Catalyzed Conversion of Styrene Derivatives to Acetals:â€‰ Impact of (â^')-Sparteine on Regioselectivity. Organic Letters, 2006, 8, 1121-1124.	2.4	48

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145	A Role for Pd(IV) in Catalytic Enantioselective Câ€“H Functionalization with Monoprotected Amino Acid Ligands under Mild Conditions. Journal of the American Chemical Society, 2017, 139, 9238-9245.	6.6	48
146	Mechanistic Studies into the Oxidative Addition of Co(I) Complexes: Combining Electroanalytical Techniques with Parameterization. Journal of the American Chemical Society, 2019, 141, 18877-18889.	6.6	48
147	Enantioselective N-Alkylation of Indoles via an Intermolecular Aza-Wacker-Type Reaction. Journal of the American Chemical Society, 2019, 141, 8670-8674.	6.6	47
148	Catalytic Enantioselective Synthesis of Difluorinated Alkyl Bromides. Journal of the American Chemical Society, 2020, 142, 14831-14837.	6.6	47
149	Data Science Meets Physical Organic Chemistry. Accounts of Chemical Research, 2021, 54, 3136-3148.	7.6	47
150	Palladium-Catalyzed Hydroalkylation of Styrenes with Organozinc Reagents To Form Carbonâ^'Carbon sp³â^'sp³Bonds under Oxidative Conditions. Journal of the American Chemical Society, 2009, 131, 18042-18043.	6.6	46
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