

Bruce A Arndtsen

List of Publications by Year in descending order

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times ranked

3208
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#	ARTICLE	IF	CITATIONS
1	Palladium-Catalyzed Multicomponent Coupling of Alkynes, Imines, and Acid Chlorides: A Direct and Modular Approach to Pyrrole Synthesis. <i>Journal of the American Chemical Society</i> , 2004, 126, 468-469.	13.7	201
2	A dual light-driven palladium catalyst: Breaking the barriers in carbonylation reactions. <i>Science</i> , 2020, 368, 318-323.	12.6	185
3	A Novel Example of Chiral Counteranion Induced Enantioselective Metal Catalysis: The Importance of Ion-Pairing in Copper-Catalyzed Olefin Aziridination and Cyclopropanation. <i>Organic Letters</i> , 2000, 2, 4165-4168.	4.6	174
4	A Palladium-Catalyzed Carbonylation Approach to Acid Chloride Synthesis. <i>Journal of the American Chemical Society</i> , 2013, 135, 16841-16844.	13.7	144
5	A Direct, One Step Synthesis of Imidazoles from Imines and Acid Chlorides: A Palladium Catalyzed Multicomponent Coupling Approach. <i>Journal of the American Chemical Society</i> , 2006, 128, 6050-6051.	13.7	138
6	Copper-Catalyzed Coupling of Pyridines and Quinolines with Alkynes: A One-Step, Asymmetric Route to Functionalized Heterocycles. <i>Journal of Organic Chemistry</i> , 2008, 73, 1906-1910.	3.2	138
7	A New Use of Wittig-Type Reagents as 1,3-Dipolar Cycloaddition Precursors and in Pyrrole Synthesis. <i>Journal of the American Chemical Society</i> , 2007, 129, 12366-12367.	13.7	137
8	Metal-Catalyzed One-Step Synthesis: Towards Direct Alternatives to Multistep Heterocycle and Amino Acid Derivative Formation. <i>Chemistry - A European Journal</i> , 2009, 15, 302-313.	3.3	130
9	Copper-Catalyzed Coupling of Imines, Acid Chlorides, and Alkynes: A Multicomponent Route to Propargylamides. <i>Organic Letters</i> , 2004, 6, 1107-1110.	4.6	121
10	Palladium Catalyzed Synthesis of α -Amino Ketones from α -Amino Alcohols: A Mild Route to Pyrroles. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 5430-5433.	13.8	120
11	A TEMPO-Free Copper-Catalyzed Aerobic Oxidation of Alcohols. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 4208-4211.	13.8	115
12	The Development of a Catalytic Synthesis of α -Amino Ketones: A Simple Four-Component Coupling Approach to α -Amino Acid Derivatives. <i>Journal of the American Chemical Society</i> , 2003, 125, 1474-1475.	13.7	111
13	The Use of Carbon Monoxide and Imines as Peptide Derivative Synthons: A Facile Palladium-Catalyzed Synthesis of α -Amino Acid Derived Imidazolines. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 3228-3230.	13.8	85
14	Functional Group Transposition: A Palladium-Catalyzed Metathesis of α -C-H Bonds and Acid Chloride Synthesis. <i>Journal of the American Chemical Society</i> , 2018, 140, 10140-10144.	13.7	81
15	A Direct Phosphine-Mediated Synthesis of Pyrroles from Acid Chlorides and α -Unsaturated Imines. <i>Organic Letters</i> , 2009, 11, 1369-1372.	4.6	80
16	A general approach to intermolecular carbonylation of arene C-H bonds to ketones through catalytic acyl triflate formation. <i>Nature Chemistry</i> , 2018, 10, 193-199.	13.6	77
17	Direct, Palladium-Catalyzed, Multicomponent Synthesis of β -Lactams from Imines, Acid Chloride, and Carbon Monoxide. <i>Organic Letters</i> , 2006, 8, 3927-3930.	4.6	76
18	From Aryl Iodides to 1,3-Dipoles: Design and Mechanism of a Palladium Catalyzed Multicomponent Synthesis of Pyrroles. <i>Journal of the American Chemical Society</i> , 2016, 138, 7315-7324.	13.7	67

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19	Metal-Free, Multicomponent Synthesis of Pyrrole-Based β -Conjugated Polymers from Imines, Acid Chlorides, and Alkynes. <i>Journal of the American Chemical Society</i> , 2016, 138, 10516-10521.	13.7	67
20	The Novel Insertion of Imines into a Late-Metal π -Carbon σ -Bond: Developing a Palladium-Mediated Route to Polypeptides. <i>Organometallics</i> , 1998, 17, 4-6.	2.3	64
21	Horner π -Wadsworth π -Emmons Reagents as Azomethine Ylide Analogues: Pyrrole Synthesis via (3 + 2) Cycloaddition. <i>Organic Letters</i> , 2010, 12, 4916-4919.	4.6	63
22	An Electrophilic Approach to the Palladium-Catalyzed Carbonylative C α -H Functionalization of Heterocycles. <i>Journal of the American Chemical Society</i> , 2015, 137, 12050-12054.	13.7	60
23	A palladium-catalysed multicomponent coupling approach to conjugated poly(1,3-dipoles) and polyheterocycles. <i>Nature Communications</i> , 2015, 6, 7411.	12.8	59
24	Simple Copper Catalysts for the Aerobic Oxidation of Amines: Selectivity Control by the Counterion. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 15802-15806.	13.8	59
25	Modular Mesoionics: Understanding and Controlling Regioselectivity in 1,3-Dipolar Cycloadditions of MA π 4nchnone Derivatives. <i>Journal of the American Chemical Society</i> , 2013, 135, 17349-17358.	13.7	58
26	A Palladium π -Catalyzed Multicomponent Coupling Approach to β -Conjugated Oligomers: Assembling Imidazole π -Based Materials from Imines and Acyl Chlorides. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 6552-6556.	13.8	56
27	Acid Chloride Synthesis by the Palladium π -Catalyzed Chlorocarbonylation of Aryl Bromides. <i>Chemistry - A European Journal</i> , 2015, 21, 9550-9555.	3.3	55
28	General Approach to the Coupling of Organoindium Reagents with Imines via Copper Catalysis. <i>Organic Letters</i> , 2006, 8, 1991-1993.	4.6	53
29	Palladium-Catalyzed Carbonylative Cross-Coupling with Imines: A Multicomponent Synthesis of Imidazolones. <i>Journal of Organic Chemistry</i> , 2008, 73, 1135-1138.	3.2	53
30	Imines in Stille-Type Cross-Coupling Reactions: A Multicomponent Synthesis of β -Substituted Amides. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 590-594.	13.8	47
31	A Palladium-Catalyzed Multicomponent Synthesis of Imidazolinium Salts and Imidazolines from Imines, Acid Chlorides, and Carbon Monoxide. <i>Journal of Organic Chemistry</i> , 2011, 76, 170-180.	3.2	46
32	Palladium π -Catalyzed Aryl Iodide Carbonylation as a Route to Imidazoline Synthesis: Design of a Five π -Component Coupling Reaction. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 8948-8951.	13.8	45
33	Palladium-Catalyzed Carbonylation of Aryl Chlorides to Electrophilic Aroyl-DMAP Salts. <i>ACS Catalysis</i> , 2018, 8, 5350-5354.	11.2	44
34	Copper-Catalyzed Petasis-Type Reaction: A General Route to β -Substituted Amides From Imines, Acid Chlorides, and Organoboron Reagents. <i>Journal of Organic Chemistry</i> , 2012, 77, 2013-2017.	3.2	43
35	Second-Order Biomimicry: In Situ Oxidative Self-Processing Converts Copper(I)/Diamine Precursor into a Highly Active Aerobic Oxidation Catalyst. <i>ACS Central Science</i> , 2017, 3, 314-321.	11.3	43
36	Synthesis of a library of chiral β -amino acid-based borate counteranions and their application to copper catalyzed olefin cyclopropanation. <i>Tetrahedron: Asymmetry</i> , 2005, 16, 1789-1799.	1.8	41

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37	Phospha-MÃ¼nchnones: Electronic Structures and 1,3-Dipolar Cycloadditions. <i>Journal of Organic Chemistry</i> , 2010, 75, 4261-4273.	3.2	41
38	Insertion of Imines and Carbon Monoxide into Manganese-alkyl Bonds: Synthesis and Structure of a Manganese-Î±-Amino Acid Derivative. <i>Organometallics</i> , 2001, 20, 1128-1136.	2.3	39
39	Copper-Catalyzed Cross-Coupling of Imines, Acid Chlorides, and Organostannanes: A Multicomponent Synthesis of Î±-Substituted Amides. <i>Journal of Organic Chemistry</i> , 2005, 70, 5133-5138.	3.2	39
40	A palladium-catalyzed synthesis of (hetero)aryl-substituted imidazoles from aryl halides, imines and carbon monoxide. <i>Chemical Science</i> , 2017, 8, 1002-1007.	7.4	39
41	Multicomponent Synthesis of Substituted and Fused-Ring Imidazoles via Phospha-mÃ¼nchnone Cycloaddition. <i>Journal of Organic Chemistry</i> , 2015, 80, 2709-2714.	3.2	33
42	Multicomponent Coupling Approach to Cross-Conjugated Polymers from Vanillin-Based Monomers. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 6263-6267.	6.7	33
43	A flexible approach to Pd-catalyzed carbonylations via aroyl dimethylaminopyridinium salts. <i>Chemical Science</i> , 2016, 7, 295-300.	7.4	33
44	Sequential Insertion of Carbon Monoxide and Imines into Nickel-alkyl Bonds: A New Route to Imine Hydroacylation. <i>Organometallics</i> , 2000, 19, 4657-4659.	2.3	32
45	PEG-conjugated pyrrole-based polymers: one-pot multicomponent synthesis and self-assembly into soft nanoparticles for drug delivery. <i>Chemical Communications</i> , 2019, 55, 9829-9832.	4.1	32
46	Versatile Palladium-Catalyzed Approach to Acyl Fluorides and Carbonylations by Combining Visible Light- and Ligand-Driven Operations. <i>Journal of the American Chemical Society</i> , 2022, 144, 9413-9420.	13.7	32
47	Development and Cycloaddition Reactivity of a New Class of Pyridine-Based Mesoionic 1,3-dipole. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6078-6082.	13.8	30
48	Computational Study of the Palladium-Catalyzed Carbonylative Synthesis of Aromatic Acid Chlorides: The Synergistic Effect of P <i>t</i> Bu ₃ and CO on Reductive Elimination. <i>Chemistry - A European Journal</i> , 2016, 22, 15107-15118.	3.3	27
49	Palladium-Catalyzed, Multicomponent Approach to Î²-Lactams via Aryl Halide Carbonylation. <i>Journal of Organic Chemistry</i> , 2016, 81, 12106-12115.	3.2	27
50	A Nickel-Based, Tandem Catalytic Approach to Isoindolinones from Imines, Aryl Iodides, and CO. <i>Organometallics</i> , 2015, 34, 1802-1805.	2.3	26
51	Activation of Carbon-oxygen Bonds by Palladium: Toward a Mild, Catalytic Approach to Î±-Amino Acid Derivatives. <i>Organic Letters</i> , 2007, 9, 4395-4397.	4.6	25
52	Copper-Catalyzed Multicomponent Coupling of Organoindium Reagents with Nitrogen-Containing Aromatic Heterocycles. <i>European Journal of Organic Chemistry</i> , 2010, 2010, 3650-3656.	2.4	24
53	Palladium catalyzed synthesis of indolizines via the carbonylative coupling of bromopyridines, imines and alkyne. <i>Chemical Science</i> , 2021, 12, 2251-2256.	7.4	23
54	Transition-metal-catalyzed multicomponent coupling reactions with imines and carbon monoxide. <i>Pure and Applied Chemistry</i> , 2013, 85, 377-384.	1.9	22

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55	Palladium Catalyzed, Multicomponent Synthesis of Fused-Ring Pyrroles from Aryl Iodides, Carbon Monoxide, and Alkyne-Tethered Imines. <i>Journal of Organic Chemistry</i> , 2016, 81, 11145-11152.	3.2	21
56	Chiral Phosphorus-Based 1,3-Dipoles: A Modular Approach to Enantioselective 1,3-Dipolar Cycloaddition and Polycyclic 2-Pyrroline Synthesis. <i>Organic Letters</i> , 2014, 16, 1056-1059.	4.6	19
57	Simple Copper Catalysts for the Aerobic Oxidation of Amines: Selectivity Control by the Counterion. <i>Angewandte Chemie</i> , 2016, 128, 16034-16038.	2.0	18
58	Design, Synthesis, and Characterization of a New Class of Amino Acid-Based Chiral Borate Counteranions. <i>Organometallics</i> , 2004, 23, 2838-2840.	2.3	17
59	Intramolecular C-C Bond Coupling of Nitriles to a Diimine Ligand in Group 7 Metal Tricarbonyl Complexes. <i>Inorganic Chemistry</i> , 2015, 54, 11441-11449.	4.0	15
60	Cyclic 1,3-Dipoles or Acyclic Phosphonium Ylides? Electronic Characterization of α -Montrelones. <i>Journal of the American Chemical Society</i> , 2008, 130, 10052-10053.	13.7	14
61	Oxidative Addition of Haloalkanes to Metal Centers: A Mechanistic Investigation. <i>Organometallics</i> , 2014, 33, 3591-3595.	2.3	14
62	Ring-Opening Polymerization of Heterocycles with Palladium Insertion Catalysts: Observation of a Multifunctional Polymerization Initiator. <i>Organometallics</i> , 1999, 18, 3953-3955.	2.3	12
63	Novel Coupling of Two Mechanistically Distinct Polymerizations on a Single Metal Center: Palladium-Mediated Synthesis of Poly(norbornene)-Poly(THF) Block Copolymers. <i>Macromolecules</i> , 2000, 33, 2305-2307.	4.8	10
64	A palladium-catalyzed C-H functionalization route to ketones via the oxidative coupling of arenes with carbon monoxide. <i>Chemical Science</i> , 2020, 11, 3104-3109.	7.4	10
65	Comparison of Imine to Olefin Insertion Reactions: Generation of Five- and Six-Membered Lactams via a Nickel-Mediated CO, Olefin, CO, Imine Insertion Cascade. <i>Organometallics</i> , 2011, 30, 1896-1901.	2.3	9
66	Palladium-Catalyzed Stille-Type Coupling of <i>N</i> -Acyl Iminium Ions with Distannanes: A Multicomponent Synthesis of β -Amidostannanes. <i>ACS Catalysis</i> , 2014, 4, 843-846.	11.2	8
67	Palladium catalyzed carbonylative generation of potent, pyridine-based acylating electrophiles for the functionalization of arenes to ketones. <i>Chemical Science</i> , 2020, 11, 8610-8616.	7.4	8
68	Development and Cycloaddition Reactivity of a New Class of Pyridine-Based Mesoionic 1,3-Dipole. <i>Angewandte Chemie</i> , 2017, 129, 6174-6178.	2.0	7
69	Palladium-Catalyzed Multicomponent Synthesis of 2-Imidazolines from Imines and Acid Chlorides. <i>Molecules</i> , 2012, 17, 13759-13768.	3.8	6
70	Mechanism of the Palladium-Catalyzed Synthesis of α -ketoimines: The Role of Ligands in <i>N</i> -Acyl Iminium Salt Carbonylation. <i>Chemistry - A European Journal</i> , 2016, 22, 15945-15954.	3.3	6
71	Decarboxylation with Carbon Monoxide: The Direct Conversion of Carboxylic Acids into Potent Acid Triflate Electrophiles. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5085-5089.	13.8	6
72	A Versatile Approach to Dynamic Amide Bond Formation with Imine Nucleophiles. <i>Chemistry - A European Journal</i> , 2020, 26, 5709-5716.	3.3	4

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73	Synthesis of neutral nickel ^{II} -methyl complexes with monodentate imines and their sequential insertion of carbon monoxide and imine. <i>Inorganica Chimica Acta</i> , 2011, 369, 231-239.	2.4	3
74	Multicomponent formation route to a new class of oxygen-based 1,3-dipoles and the modular synthesis of furans. <i>Chemical Science</i> , 2021, 12, 15077-15083.	7.4	2
75	Decarboxylation with Carbon Monoxide: The Direct Conversion of Carboxylic Acids into Potent Acid Triflate Electrophiles. <i>Angewandte Chemie</i> , 2019, 131, 5139-5143.	2.0	1
76	Imines in Stille-Type Cross-Coupling Reactions: A Multicomponent Synthesis of β -Substituted Amides.. <i>ChemInform</i> , 2004, 35, no.	0.0	0
77	Synthesis of a Library Chiral β -Amino Acid-Based Borate Counteranions and Their Application to Copper Catalyzed Olefin Cyclopropanation.. <i>ChemInform</i> , 2005, 36, no.	0.0	0
78	Synthesis, structure and palladium coordination of ambiphilic, pyridine- and phosphine-tethered β -boryl imine ligands. <i>Dalton Transactions</i> , 2019, 48, 5766-5772.	3.3	0
79	Fragmentation and reassembly. <i>Nature Chemistry</i> , 2021, 13, 110-111.	13.6	0