

Neal P Mankad

List of Publications by Year in descending order

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61945

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docs citations

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times ranked

4635
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis, Structure, and Alkyne Reactivity of a Dimeric (Carbene)copper(I) Hydride. <i>Organometallics</i> , 2004, 23, 3369-3371.	1.1	314
2	Bimetallic catalysis for C–C and C–X coupling reactions. <i>Chemical Science</i> , 2017, 8, 1705-1718.	3.7	307
3	Triggering N ₂ uptake via redox-induced expulsion of coordinated NH ₃ and N ₂ silylation at trigonal bipyramidal iron. <i>Nature Chemistry</i> , 2010, 2, 558-565.	6.6	285
4	Base Metal Catalysts for Photochemical C–H Borylation That Utilize Metal–Metal Cooperativity. <i>Journal of the American Chemical Society</i> , 2013, 135, 17258-17261.	6.6	235
5	Application of Fundamental Organometallic Chemistry to the Development of a Gold–Catalyzed Synthesis of Sulfinate Derivatives. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4404-4407.	7.2	231
6	Two Metals Are Better Than One in the Gold Catalyzed Oxidative Heteroarylation of Alkenes. <i>Journal of the American Chemical Society</i> , 2011, 133, 14293-14300.	6.6	208
7	Palladium-Catalyzed Cross-Coupling of Pyrrole Anions with Aryl Chlorides, Bromides, and Iodides. <i>Organic Letters</i> , 2004, 6, 3981-3983.	2.4	167
8	Synthesis, Structure, and CO ₂ Reactivity of a Two-Coordinate (Carbene)copper(I) Methyl Complex. <i>Organometallics</i> , 2004, 23, 1191-1193.	1.1	162
9	<i>z</i> -Selective Semi-Hydrogenation of Alkynes by Heterobimetallic Catalysis. <i>Journal of the American Chemical Society</i> , 2015, 137, 14598-14601.	6.6	158
10	Selectivity Effects in Bimetallic Catalysis. <i>Chemistry - A European Journal</i> , 2016, 22, 5822-5829.	1.7	158
11	Terminal Fe–N ₂ and Fe–C Interactions Supported by Tris(phosphino)silyl Ligands. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5768-5771.	7.2	157
12	C–C Coupling Reactivity of an Alkylgold(III) Fluoride Complex with Arylboronic Acids. <i>Journal of the American Chemical Society</i> , 2010, 132, 12859-12861.	6.6	145
13	C(sp ³)–F reductive elimination from alkylgold(III) fluoride complexes. <i>Chemical Science</i> , 2012, 3, 72-76.	3.7	141
14	Dinitrogen Complexes Supported by Tris(phosphino)silyl Ligands. <i>Inorganic Chemistry</i> , 2009, 48, 2507-2517.	1.9	139
15	Characterization of the Terminal Iron(IV) Imides {[PhPtBu ₂ (pz)]FeIV(=O)NAd} ⁺ . <i>Journal of the American Chemical Society</i> , 2006, 128, 4956-4957.	6.6	134
16	C–C and C–X coupling reactions of unactivated alkyl electrophiles using copper catalysis. <i>Chemical Society Reviews</i> , 2020, 49, 8036-8064.	18.7	132
17	Catalytic N–N Coupling of Aryl Azides To Yield Azoarenes via Trigonal Bipyramidal Iron–Nitrene Intermediates. <i>Journal of the American Chemical Society</i> , 2010, 132, 4083-4085.	6.6	108
18	Metal-catalysed radical carbonylation reactions. <i>Catalysis Science and Technology</i> , 2019, 9, 3603-3613.	2.1	105

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19	Three-Coordinate Copper(I) Amido and Aminyl Radical Complexes. <i>Journal of the American Chemical Society</i> , 2009, 131, 3878-3880.	6.6	104
20	Extremely efficient hydroboration of ketones and aldehydes by copper carbene catalysis. <i>Chemical Communications</i> , 2016, 52, 3844-3846.	2.2	98
21	Structural Snapshots of a Flexible Cu ₂ P ₂ Core that Accommodates the Oxidation States Cu ^I Cu ^I , Cu ^I .5Cu ^{1.5} , and Cu ^{II} Cu ^I . <i>Journal of the American Chemical Society</i> , 2005, 127, 16032-16033.	6.6	94
22	Probing the Electronic Structures of [Cu ₂ (η^4 -XR ₂)] ⁿ⁺ Diamond Cores as a Function of the Bridging X Atom (X = N or P) and Charge (n = 0, 1, 2). <i>Journal of the American Chemical Society</i> , 2008, 130, 3478-3485.	6.6	87
23	Copper-Catalyzed Carbonylative Coupling of Alkyl Halides. <i>Accounts of Chemical Research</i> , 2021, 54, 2261-2274.	7.6	84
24	Catalyst Control of Selectivity in CO ₂ Reduction Using a Tunable Heterobimetallic Effect. <i>Journal of the American Chemical Society</i> , 2015, 137, 10898-10901.	6.6	82
25	Cu-Catalyzed Hydrocarbonylative C-C Coupling of Terminal Alkynes with Alkyl Iodides. <i>Journal of the American Chemical Society</i> , 2017, 139, 10200-10203.	6.6	81
26	Dinitrogen Complexes of Sulfur-Ligated Iron. <i>Journal of the American Chemical Society</i> , 2011, 133, 8440-8443.	6.6	77
27	Cooperative Strategies for Catalytic Hydrogenation of Unsaturated Hydrocarbons. <i>ACS Catalysis</i> , 2017, 7, 6110-6119.	5.5	64
28	Copper-Catalyzed Borocarbonylative Coupling of Internal Alkynes with Unactivated Alkyl Halides: Modular Synthesis of Tetrasubstituted Borolenones. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10328-10332.	7.2	62
29	A Heterobimetallic Mechanism for C-H Borylation Elucidated from Experimental and Computational Data. <i>ACS Catalysis</i> , 2015, 5, 3689-3699.	5.5	61
30	Diverse bimetallic mechanisms emerging from transition metal Lewis acid/base pairs: development of co-catalysis with metal carbenes and metal carbonyl anions. <i>Chemical Communications</i> , 2018, 54, 1291-1302.	2.2	58
31	Synthesis and Characterization of Heterobimetallic Complexes with Direct Cu-M Bonds (M = Cr, Mn). <i>Journal of the American Chemical Society</i> , 2014, 136, 11307-11315.	1.9	57
32	Synthesis of Allylic Alcohols via Cu-Catalyzed Hydrocarbonylative Coupling of Alkynes with Alkyl Halides. <i>Journal of the American Chemical Society</i> , 2018, 140, 1159-1164.	6.6	53
33	Heterobimetallic Complexes with Polar, Unsupported Cu-Fe and Zn-Fe Bonds Stabilized by N-Heterocyclic Carbenes. <i>Organometallics</i> , 2013, 32, 3986-3992.	1.1	52
34	Cu/Mn bimetallic catalysis enables carbonylative Suzuki-Miyaura coupling with unactivated alkyl electrophiles. <i>Chemical Science</i> , 2017, 8, 4750-4755.	3.7	52
35	Heterobimetallic H ₂ Addition and Alkene/Alkane Elimination Reactions Related to the Mechanism of E-Selective Alkyne Semihydrogenation. <i>Organometallics</i> , 2017, 36, 220-227.	1.1	49
36	Synergistic Copper-Catalyzed Reductive Aminocarbonylation of Alkyl Iodides with Nitroarenes. <i>Organic Letters</i> , 2019, 21, 10106-10110.	2.4	48

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37	Diazoalkanes react with a bis(phosphino)borate copper(I) source to generate [Ph ₂ BPtBu ₂]Cu(1-N ₂ CR ₂), [Ph ₂ BPtBu ₂]Cu(CPh ₂), and [Ph ₂ BPtBu ₂]Cu-N(CPh ₂)(NCPH ₂). <i>Chemical Communications</i> , 2008, , 1061.	2.2	47
38	Non-Precious Metal Catalysts for C-H Borylation Enabled by Metal-Metal Cooperativity. <i>Synlett</i> , 2014, 25, 1197-1201.	1.0	47
39	Cooperative Heterobimetallic Substrate Activation Enhances Catalytic Activity and Amplifies Regioselectivity in 1,4-Hydroboration of Pyridines. <i>ACS Catalysis</i> , 2020, 10, 3670-3675.	5.5	47
40	Four-Coordinate, Trigonal Pyramidal Pt(II) and Pd(II) Complexes. <i>Journal of the American Chemical Society</i> , 2010, 132, 13975-13977.	6.6	46
41	Cu-Catalyzed Hydroxymethylation of Unactivated Alkyl Iodides with CO To Provide One-Carbon-Extended Alcohols. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5867-5870.	7.2	46
42	Dehydrogenative Borylation and Silylation of Styrenes Catalyzed by Copper-Carbenes. <i>ACS Catalysis</i> , 2017, 7, 146-149.	5.5	45
43	Cu-Catalyzed Carbonylative Silylation of Alkyl Halides: Efficient Access to Acylsilanes. <i>Journal of the American Chemical Society</i> , 2020, 142, 80-84.	6.6	43
44	Experimental and Computational Characterization of the Transition State for C-X Bimetallic Oxidative Addition at a Cu-Fe Reaction Center. <i>Organometallics</i> , 2015, 34, 3857-3864.	1.1	42
45	Experimental determination of redox cooperativity and electronic structures in catalytically active Cu-Fe and Zn-Fe heterobimetallic complexes. <i>Dalton Transactions</i> , 2014, 43, 13661.	1.6	41
46	Small Molecule Activation Chemistry of Cu-Fe Heterobimetallic Complexes Toward CS ₂ and N ₂ O. <i>Inorganic Chemistry</i> , 2014, 53, 7730-7737.	1.9	41
47	Assembly, Structure, and Reactivity of Cu ₄ S and Cu ₃ S Models for the Nitrous Oxide Reductase Active Site, Cu _Z *. <i>Inorganic Chemistry</i> , 2014, 53, 10611-10619.	1.9	39
48	Cooperative Activation of CO ₂ and Epoxide by a Heterobinuclear Al-Fe Complex via Radical Pair Mechanisms. <i>Journal of the American Chemical Society</i> , 2022, 144, 3210-3221.	6.6	36
49	Thermal C-H borylation using a CO-free iron boryl complex. <i>Chemical Communications</i> , 2015, 51, 5379-5382.	2.2	35
50	Heterobimetallic Control of Regioselectivity in Alkyne Hydrostannylation: Divergent Syntheses of $\hat{\pm}$ - and (<i>E</i>)-Vinylstannanes via Cooperative Sn-H Bond Activation. <i>Journal of the American Chemical Society</i> , 2019, 141, 3710-3716.	6.6	35
51	A One-Hole Cu ₄ S Cluster with N ₂ O Reductase Activity: A Structural and Functional Model for Cu _Z *. <i>Journal of the American Chemical Society</i> , 2016, 138, 13107-13110.	6.6	33
52	A Cu ₄ S model for the nitrous oxide reductase active sites supported only by nitrogen ligands. <i>Chemical Communications</i> , 2015, 51, 11860-11863.	2.2	29
53	A W/Cu Synthetic Model for the Mo/Cu Cofactor of Aerobic CODH Indicates That Biochemical CO Oxidation Requires a Frustrated Lewis Acid/Base Pair. <i>Journal of the American Chemical Society</i> , 2020, 142, 12635-12642.	6.6	29
54	Dynamically Bifurcating Hydride Transfer Mechanism and Origin of Inverse Isotope Effect for Heterodinuclear AgRu-Catalyzed Alkyne Semihydrogenation. <i>ACS Catalysis</i> , 2019, 9, 2657-2663.	5.5	28

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55	A data-intensive re-evaluation of semibridging carbonyl ligands. Dalton Transactions, 2015, 44, 17007-17014.	1.6	27
56	One-Step Synthesis of Acylboron Compounds via Copper-Catalyzed Carbonylative Borylation of Alkyl Halides**. Angewandte Chemie - International Edition, 2021, 60, 2094-2098.	7.2	27
57	Improvements to the Practical Usability of the "Crystalline Sponge" Method for Organic Structure Determination. Organic Letters, 2016, 18, 6112-6115.	2.4	26
58	Oxidation of a [Cu ₂ S] complex by N ₂ O and CO ₂ : insights into a role of tetranuclearity in the Cu _Z site of nitrous oxide reductase. Chemical Communications, 2018, 54, 1097-1100.	2.2	26
59	Fundamental organometallic chemistry under bimetallic influence: driving η^2 -hydride elimination and diverting migratory insertion at Cu and Ni. Dalton Transactions, 2017, 46, 5518-5521.	1.6	23
60	Recent advances in cooperative activation of CO ₂ and N ₂ O by bimetallic coordination complexes or binuclear reaction pathways. Dalton Transactions, 2022, 51, 6129-6147.	1.6	23
61	N ₂ O Reductase Activity of a [Cu ₄ S] Cluster in the 4Cu ^I Redox State Modulated by Hydrogen Bond Donors and Proton Relays in the Secondary Coordination Sphere. Angewandte Chemie - International Edition, 2020, 59, 627-631.	7.2	22
62	Cobalt-Catalyzed (<i>endo</i>)- η^2 -Selective Hydrogermylation of Terminal Alkynes. Organic Letters, 2021, 23, 3221-3226.	2.4	22
63	Multifrequency EPR Studies of [Cu ^{1.5} Cu ^{1.5}] ⁺ for Cu ₂ (η^4 -NR ₂) ₂ and Cu ₂ (η^4 -PR ₂) ₂ Diamond Cores. Inorganic Chemistry, 2009, 48, 7026-7032.	1.9	16
64	Copper-Catalyzed Borocarbonylative Coupling of Internal Alkynes with Unactivated Alkyl Halides: Modular Synthesis of Tetrasubstituted η^2 -Borylenones. Angewandte Chemie, 2018, 130, 10485-10489.	1.6	14
65	Cu-Catalyzed Hydroxymethylation of Unactivated Alkyl Iodides with CO To Provide One-Carbon-Extended Alcohols. Angewandte Chemie, 2018, 130, 5969-5972.	1.6	13
66	Impact of Electronic and Steric Changes of Ligands on the Assembly, Stability, and Redox Activity of Cu ₄ (η^4 -S) Model Compounds of the Cu _Z Active Site of Nitrous Oxide Reductase (N ₂ O _R). Inorganic Chemistry, 2020, 59, 6496-6507.	1.9	13
67	Coordination chemistry of the Cu _Z site in nitrous oxide reductase and its synthetic mimics. Coordination Chemistry Reviews, 2021, 429, 213718.	9.5	13
68	Photochemical Heck benzylation of styrenes catalyzed by Na[FeCp(CO) ₂]. Journal of Organometallic Chemistry, 2015, 793, 171-174.	0.8	12
69	Catalytic Reactions by Heterobimetallic Carbonyl Complexes with Polar Metal-Metal Interactions. Synthesis, 2021, 53, 1409-1422.	1.2	12
70	Preparation of Potassium Acyltrifluoroborates (KATs) from Carboxylic Acids by Copper-Catalyzed Borylation of Mixed Anhydrides**. Angewandte Chemie - International Edition, 2022, 61, e202114513.	7.2	10
71	Pursuit of C-H Borylation Reactions with Non-Precious Heterobimetallic Catalysts: Hypothesis-Driven Variations on a Design Theme. Synlett, 2020, 31, 125-132.	1.0	9
72	Learning from Nature: Bio-inspired Heterobinuclear Electrocatalysts for Selective CO ₂ Reduction. Trends in Chemistry, 2021, 3, 159-160.	4.4	9

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73	Diverse Thermal and Photochemical Reactivity of an Al ^{III} -Fe Bonded Heterobimetallic Complex. <i>Organometallics</i> , 2022, 41, 1917-1921.	1.1	9
74	Heterometallic Cu ₂ Fe and Zn ₂ Fe ₂ Complexes Derived from [Fe(CO) ₄] ²⁺ and Cu/Fe Bifunctional N ₂ O Activation Reactivity. <i>Organometallics</i> , 2020, 39, 2043-2046.	1.1	8
75	Probing the electronic and mechanistic roles of the η^4 -sulfur atom in a synthetic Cu ₂ Z model system. <i>Chemical Science</i> , 2020, 11, 3441-3447.	3.7	8
76	One-Step Synthesis of Acylboron Compounds via Copper-Catalyzed Carbonylative Borylation of Alkyl Halides**. <i>Angewandte Chemie</i> , 2021, 133, 2122-2126.	1.6	8
77	Multinuclear Cu(I) Clusters Featuring a New Triply Bridging Coordination Mode of Phosphaamidinate Ligands. <i>Inorganic Chemistry</i> , 2018, 57, 9439-9445.	1.9	7
78	Mixed phosphine/carbonyl derivatives of heterobimetallic copper-iron and copper-tungsten catalysts. <i>Polyhedron</i> , 2019, 157, 116-123.	1.0	6
79	Biomimetic Studies of the Mo/Cu Active Site of CO Dehydrogenase. , 2021, , 772-789.		4
80	Synthesis and Characterization of Heteromultinuclear Ni/M Clusters (M = Fe, Ru, W) Including a Paramagnetic (NHC)Ni ^{II} WCp*(CO) ₃ Heterobinuclear Complex. <i>Organometallics</i> , 2021, 40, 2123-2132.	1.1	4
81	N ₂ O Reductase Activity of a [Cu ₄ S] Cluster in the 4Cu I Redox State Modulated by Hydrogen Bond Donors and Proton Relays in the Secondary Coordination Sphere. <i>Angewandte Chemie</i> , 2020, 132, 637-641.	1.6	3
82	CHAPTER 10. Model Compounds of Copper-Containing Enzymes Involved in Bacterial Denitrification. 2-Oxoglutarate-Dependent Oxygenases, 2016, , 225-251.	0.8	3
83	Preparation of Potassium Acyltrifluoroborates (KATs) from Carboxylic Acids by Copper-Catalyzed Borylation of Mixed Anhydrides**. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
84	trans-Tetracarbonylbis(triphenylphosphane- η^5 P)molybdenum(0). <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2014, 70, m36-m36.	0.2	1
85	Palladium-Catalyzed Cross-Coupling of Pyrrole Anions with Aryl Chlorides, Bromides, and Iodides.. <i>ChemInform</i> , 2005, 36, no.	0.1	0
86	New talent: Americas, 2020. <i>Dalton Transactions</i> , 2020, 49, 15944-15944.	1.6	0