

# Neal P Mankad

## List of Publications by Year in descending order

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86  
papers

5,717  
citations

61945

43  
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76872

74  
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101  
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101  
docs citations

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times ranked

4635  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in cooperative activation of CO <sub>2</sub> and N <sub>2</sub> O by bimetallic coordination complexes or binuclear reaction pathways. Dalton Transactions, 2022, 51, 6129-6147.	1.6	23
2	Cooperative Activation of CO <sub>2</sub> and Epoxide by a Heterobinuclear Al <sup>III</sup> -Fe Complex via Radical Pair Mechanisms. Journal of the American Chemical Society, 2022, 144, 3210-3221.	6.6	36
3	Preparation of Potassium Acyltrifluoroborates (KATs) from Carboxylic Acids by Copper-Catalyzed Borylation of Mixed Anhydrides**. Angewandte Chemie, 2022, 134, .	1.6	3
4	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
5	Diverse Thermal and Photochemical Reactivity of an Al <sup>III</sup> -Fe Bonded Heterobimetallic Complex. Organometallics, 2022, 41, 1917-1921.	1.1	9
6	One-Step Synthesis of Acylboron Compounds via Copper-Catalyzed Carbonylative Borylation of Alkyl Halides**. Angewandte Chemie, 2021, 133, 2122-2126.	1.6	8
7	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
8	Coordination chemistry of the CuZ site in nitrous oxide reductase and its synthetic mimics. Coordination Chemistry Reviews, 2021, 429, 213718.	9.5	13
9	Biomimetic Studies of the Mo/Cu Active Site of CO Dehydrogenase. , 2021, , 772-789.		4
10	Learning from Nature: Bio-inspired Heterobinuclear Electrocatalysts for Selective CO <sub>2</sub> Reduction. Trends in Chemistry, 2021, 3, 159-160.	4.4	9
11	Copper-Catalyzed Carbonylative Coupling of Alkyl Halides. Accounts of Chemical Research, 2021, 54, 2261-2274.	7.6	84
12	Cobalt-Catalyzed (<i>E</i>)- <sup>1</sup> -Selective Hydrogermylation of Terminal Alkynes. Organic Letters, 2021, 23, 3221-3226.	2.4	22
13	Synthesis and Characterization of Heteromultinuclear Ni/M Clusters (M = Fe, Ru, W) Including a Paramagnetic (NHC)Ni <sup>II</sup> -WCp <sup>*</sup> (CO) <sub>3</sub> Heterobinuclear Complex. Organometallics, 2021, 40, 2123-2132.	1.1	4
14	Catalytic Reactions by Heterobimetallic Carbonyl Complexes with Polar Metal-Metal Interactions. Synthesis, 2021, 53, 1409-1422.	1.2	12
15	N <sub>2</sub> O Reductase Activity of a [Cu <sub>4</sub> S] Cluster in the 4Cu <sup>I</sup> 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
16	N <sub>2</sub> O Reductase Activity of a [Cu <sub>4</sub> S] Cluster in the 4Cu <sup>I</sup> Redox State Modulated by Hydrogen Bond Donors and Proton Relays in the Secondary Coordination Sphere. Angewandte Chemie, 2020, 132, 637-641.	1.6	3
17	Cu-Catalyzed Carbonylative Silylation of Alkyl Halides: Efficient Access to Acylsilanes. Journal of the American Chemical Society, 2020, 142, 80-84.	6.6	43
18	Pursuit of C <sup>III</sup> -H Borylation Reactions with Non-Precious Heterobimetallic Catalysts: Hypothesis-Driven Variations on a Design Theme. Synlett, 2020, 31, 125-132.	1.0	9

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19	New talent: Americas, 2020. Dalton Transactions, 2020, 49, 15944-15944.	1.6	0
20	Câ€C and Câ€X coupling reactions of unactivated alkyl electrophiles using copper catalysis. Chemical Society Reviews, 2020, 49, 8036-8064.	18.7	132
21	Heterometallic Cu <sub>2</sub> Fe and Zn <sub>2</sub> Fe <sub>2</sub> Complexes Derived from [Fe(CO) <sub>4</sub> ] <sup>2+</sup> and Cu/Fe Bifunctional N <sub>2</sub> O Activation Reactivity. Organometallics, 2020, 39, 2043-2046.	1.1	8
22	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. Journal of the American Chemical Society, 2020, 142, 12635-12642.	6.6	29
23	Probing the electronic and mechanistic roles of the $\frac{1}{4}$ -sulfur atom in a synthetic Cu <sub>Z</sub> model system. Chemical Science, 2020, 11, 3441-3447.	3.7	8
24	Cooperative Heterobimetallic Substrate Activation Enhances Catalytic Activity and Amplifies Regioselectivity in 1,4-Hydroboration of Pyridines. ACS Catalysis, 2020, 10, 3670-3675.	5.5	47
25	Impact of Electronic and Steric Changes of Ligands on the Assembly, Stability, and Redox Activity of Cu <sub>4</sub> ( $\frac{1}{4}$ -S) Model Compounds of the Cu <sub>Z</sub> Active Site of Nitrous Oxide Reductase (N <sub>2</sub> OR). Inorganic Chemistry, 2020, 59, 6496-6507.	1.9	13
26	Heterobimetallic Control of Regioselectivity in Alkyne Hydrostannylation: Divergent Syntheses of $\hat{\pm}$ - and ( <i>E</i> )- <i>l</i> <sup>2</sup> -Vinylstannanes via Cooperative Snâ€H Bond Activation. Journal of the American Chemical Society, 2019, 141, 3710-3716.	6.6	35
27	Metal-catalysed radical carbonylation reactions. Catalysis Science and Technology, 2019, 9, 3603-3613.	2.1	105
28	Dynamically Bifurcating Hydride Transfer Mechanism and Origin of Inverse Isotope Effect for Heterodinuclear AgRu-Catalyzed Alkyne Semihydrogenation. ACS Catalysis, 2019, 9, 2657-2663.	5.5	28
29	Synergistic Copper-Catalyzed Reductive Aminocarbonylation of Alkyl Iodides with Nitroarenes. Organic Letters, 2019, 21, 10106-10110.	2.4	48
30	Mixed phosphine/carbonyl derivatives of heterobimetallic copperâ€iron and copperâ€tungsten catalysts. Polyhedron, 2019, 157, 116-123.	1.0	6
31	Cuâ€Catalyzed Hydroxymethylation of Unactivated Alkyl Iodides with CO To Provide Oneâ€Carbonâ€Extended Alcohols. Angewandte Chemie - International Edition, 2018, 57, 5867-5870.	7.2	46
32	Synthesis of Allylic Alcohols via Cu-Catalyzed Hydrocarbonylative Coupling of Alkynes with Alkyl Halides. Journal of the American Chemical Society, 2018, 140, 1159-1164.	6.6	53
33	Oxidation of a [Cu <sub>2</sub> S] complex by N <sub>2</sub> O and CO <sub>2</sub> : insights into a role of tetranuclearity in the Cu <sub>Z</sub> site of nitrous oxide reductase. Chemical Communications, 2018, 54, 1097-1100.	2.2	26
34	Diverse bimetallic mechanisms emerging from transition metal Lewis acid/base pairs: development of co-catalysis with metal carbenes and metal carbonyl anions. Chemical Communications, 2018, 54, 1291-1302.	2.2	58
35	Cuâ€Catalyzed Hydroxymethylation of Unactivated Alkyl Iodides with CO To Provide Oneâ€Carbonâ€Extended Alcohols. Angewandte Chemie, 2018, 130, 5969-5972.	1.6	13
36	Copperâ€Catalyzed Borocarbonylative Coupling of Internal Alkynes with Unactivated Alkyl Halides: Modular Synthesis of Tetrasubstituted $\hat{\pm}$ -Borylenones. Angewandte Chemie - International Edition, 2018, 57, 10328-10332.	7.2	62

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37	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
38	Copper-Catalyzed Borocarbonylative Coupling of Internal Alkynes with Unactivated Alkyl Halides: Modular Synthesis of Tetrasubstituted $\beta$ -Borylenones. <i>Angewandte Chemie</i> , 2018, 130, 10485-10489.	1.6	14
39	Heterobimetallic $H_2$ Addition and Alkene/Alkane Elimination Reactions Related to the Mechanism of <i>E</i> -Selective Alkyne Semihydrogenation. <i>Organometallics</i> , 2017, 36, 220-227.	1.1	49
40	Bimetallic catalysis for $C-C$ and $C-X$ coupling reactions. <i>Chemical Science</i> , 2017, 8, 1705-1718.	3.7	307
41	Dehydrogenative Borylation and Silylation of Styrenes Catalyzed by Copper-Carbenes. <i>ACS Catalysis</i> , 2017, 7, 146-149.	5.5	45
42	Cu/Mn bimetallic catalysis enables carbonylative Suzuki-Miyaura coupling with unactivated alkyl electrophiles. <i>Chemical Science</i> , 2017, 8, 4750-4755.	3.7	52
43	Fundamental organometallic chemistry under bimetallic influence: driving $\beta$ -hydride elimination and diverting migratory insertion at Cu and Ni. <i>Dalton Transactions</i> , 2017, 46, 5518-5521.	1.6	23
44	Cooperative Strategies for Catalytic Hydrogenation of Unsaturated Hydrocarbons. <i>ACS Catalysis</i> , 2017, 7, 6110-6119.	5.5	64
45	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
46	Selectivity Effects in Bimetallic Catalysis. <i>Chemistry - A European Journal</i> , 2016, 22, 5822-5829.	1.7	158
47	A One-Hole $Cu_4S$ Cluster with $N_2O$ 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
48	Improvements to the Practical Usability of the $\alpha$ -Crystalline Sponge Method for Organic Structure Determination. <i>Organic Letters</i> , 2016, 18, 6112-6115.	2.4	26
49	Extremely efficient hydroboration of ketones and aldehydes by copper carbene catalysis. <i>Chemical Communications</i> , 2016, 52, 3844-3846.	2.2	98
50	CHAPTER 10. Model Compounds of Copper-Containing Enzymes Involved in Bacterial Denitrification. 2-Oxoglutarate-Dependent Oxygenases, 2016, , 225-251.	0.8	3
51	A Heterobimetallic Mechanism for $C-H$ Borylation Elucidated from Experimental and Computational Data. <i>ACS Catalysis</i> , 2015, 5, 3689-3699.	5.5	61
52	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
53	Photochemical Heck benzylation of styrenes catalyzed by $Na[FeCp(CO)_2]$ . <i>Journal of Organometallic Chemistry</i> , 2015, 793, 171-174.	0.8	12
54	Thermal $C-H$ borylation using a CO-free iron boryl complex. <i>Chemical Communications</i> , 2015, 51, 5379-5382.	2.2	35

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55	Experimental and Computational Characterization of the Transition State for C <sup>α</sup> -X Bimetallic Oxidative Addition at a Cu <sup>α</sup> -Fe Reaction Center. <i>Organometallics</i> , 2015, 34, 3857-3864.	1.1	42
56	A data-intensive re-evaluation of semibridging carbonyl ligands. <i>Dalton Transactions</i> , 2015, 44, 17007-17014.	1.6	27
57	A Cu <sub>4</sub> 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
58	<i>i&gt;E&lt;/i&gt;-Selective Semi-Hydrogenation of Alkynes by Heterobimetallic Catalysis. <i>Journal of the American Chemical Society</i>, 2015, 137, 14598-14601.</i>	6.6	158
59	Non-Precious Metal Catalysts for C <sup>α</sup> -H Borylation Enabled by Metal <sup>α</sup> -Metal Cooperativity. <i>Synlett</i> , 2014, 25, 1197-1201.	1.0	47
60	Synthesis and Characterization of Heterobimetallic Complexes with Direct Cu <sup>α</sup> -M Bonds (M = Cr, Mn). <i>Journal of the American Chemical Society</i> , 2014, 136, 11307-11315.	1.9	57
61	trans-Tetracarbonylbis(triphenylphosphane- <sup>δ</sup> P)molybdenum(0). <i>Acta Crystallographica Section E: Structure Reports Online</i> , 2014, 70, m36-m36.	0.2	1
62	Application of Fundamental Organometallic Chemistry to the Development of a Gold <sup>α</sup> -Catalyzed Synthesis of Sulfinates. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4404-4407.	7.2	231
63	Experimental determination of redox cooperativity and electronic structures in catalytically active Cu <sup>α</sup> -Fe and Zn <sup>α</sup> -Fe heterobimetallic complexes. <i>Dalton Transactions</i> , 2014, 43, 13661.	1.6	41
64	Assembly, Structure, and Reactivity of Cu <sub>4</sub> S and Cu <sub>3</sub> S Models for the Nitrous Oxide Reductase Active Site, Cu <sub>Z</sub> *. <i>Inorganic Chemistry</i> , 2014, 53, 10611-10619.	1.9	39
65	Small Molecule Activation Chemistry of Cu <sup>α</sup> -Fe Heterobimetallic Complexes Toward CS <sub>2</sub> and N <sub>2</sub> O. <i>Inorganic Chemistry</i> , 2014, 53, 7730-7737.	1.9	41
66	Base Metal Catalysts for Photochemical C <sup>α</sup> -H Borylation That Utilize Metal <sup>α</sup> -Metal Cooperativity. <i>Journal of the American Chemical Society</i> , 2013, 135, 17258-17261.	6.6	235
67	Heterobimetallic Complexes with Polar, Unsupported Cu <sup>α</sup> -Fe and Zn <sup>α</sup> -Fe Bonds Stabilized by N-Heterocyclic Carbenes. <i>Organometallics</i> , 2013, 32, 3986-3992.	1.1	52
68	C(sp <sup>3</sup> ) <sup>α</sup> -F reductive elimination from alkylgold(III) fluoride complexes. <i>Chemical Science</i> , 2012, 3, 72-76.	3.7	141
69	Dinitrogen Complexes of Sulfur-Ligated Iron. <i>Journal of the American Chemical Society</i> , 2011, 133, 8440-8443.	6.6	77
70	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
71	Triggering N <sub>2</sub> uptake via redox-induced expulsion of coordinated NH <sub>3</sub> and N <sub>2</sub> silylation at trigonal bipyramidal iron. <i>Nature Chemistry</i> , 2010, 2, 558-565.	6.6	285
72	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

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73	Catalytic N <sup>+</sup> -N Coupling of Aryl Azides To Yield Azoarenes via Trigonal Bipyramid Iron <sup>+</sup> Nitrene Intermediates. <i>Journal of the American Chemical Society</i> , 2010, 132, 4083-4085.	6.6	108
74	C <sup>+</sup> 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
75	Multifrequency EPR Studies of [Cu <sup>1.5</sup> Cu <sup>1.5</sup> ] <sup>+</sup> for Cu <sub>2</sub> ( <sup>1</sup> / <sub>4</sub> -NR <sub>2</sub> ) <sub>2</sub> and Cu <sub>2</sub> ( <sup>1</sup> / <sub>4</sub> -PR <sub>2</sub> ) <sub>2</sub> Diamond Cores. <i>Inorganic Chemistry</i> , 2009, 48, 7026-7032.	1.9	16
76	Three-Coordinate Copper(I) Amido and Aminyl Radical Complexes. <i>Journal of the American Chemical Society</i> , 2009, 131, 3878-3880.	6.6	104
77	Dinitrogen Complexes Supported by Tris(phosphino)silyl Ligands. <i>Inorganic Chemistry</i> , 2009, 48, 2507-2517.	1.9	139
78	Diazoalkanes react with a bis(phosphino)borate copper(i) source to generate [Ph <sub>2</sub> BPtBu <sub>2</sub> ]Cu( <sup>1</sup> -N <sub>2</sub> CR <sub>2</sub> ), [Ph <sub>2</sub> BPtBu <sub>2</sub> ]Cu(CPh <sub>2</sub> ), and [Ph <sub>2</sub> BPtBu <sub>2</sub> ]Cu <sup>+</sup> N(CPh <sub>2</sub> )(NCPH <sub>2</sub> ). <i>Chemical Communications</i> , 2008, , 1061.	2.2	47
79	Probing the Electronic Structures of [Cu <sub>2</sub> ( <sup>1</sup> / <sub>4</sub> -XR <sub>2</sub> ) <sub>2</sub> ] <sup>n+</sup> 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
80	Terminal Fe <sup>+</sup> N <sub>2</sub> and Fe <sup>+</sup> ...H <sup>+</sup> C Interactions Supported by Tris(phosphino)silyl Ligands. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5768-5771.	7.2	157
81	Characterization of the Terminal Iron(IV) Imides {[PhBtBu <sub>2</sub> (pz <sup>-</sup> )]FeIV <sup>+</sup> NAd} <sup>+</sup> . <i>Journal of the American Chemical Society</i> , 2006, 128, 4956-4957.	6.6	134
82	Palladium-Catalyzed Cross-Coupling of Pyrrole Anions with Aryl Chlorides, Bromides, and Iodides.. <i>ChemInform</i> , 2005, 36, no.	0.1	0
83	Structural Snapshots of a Flexible Cu <sub>2</sub> P <sub>2</sub> Core that Accommodates the Oxidation States CuI <sub>2</sub> , Cu <sup>1.5</sup> Cu <sup>1.5</sup> , and CuII <sub>2</sub> . <i>Journal of the American Chemical Society</i> , 2005, 127, 16032-16033.	6.6	94
84	Palladium-Catalyzed Cross-Coupling of Pyrrole Anions with Aryl Chlorides, Bromides, and Iodides. <i>Organic Letters</i> , 2004, 6, 3981-3983.	2.4	167
85	Synthesis, Structure, and Alkyne Reactivity of a Dimeric (Carbene)copper(I) Hydride. <i>Organometallics</i> , 2004, 23, 3369-3371.	1.1	314
86	Synthesis, Structure, and CO <sub>2</sub> Reactivity of a Two-Coordinate (Carbene)copper(I) Methyl Complex. <i>Organometallics</i> , 2004, 23, 1191-1193.	1.1	162