Jared C Lewis

List of Publications by Year
in descending order

68 papers	6,750 citations	101543 36 h-index	98798 67 g-index
117 all docs	117 docs citations	117 times ranked	5904 citing authors

#	Article	IF	Citations
1	Direct Functionalization of Nitrogen Heterocycles via Rh-Catalyzed Câ˘'H Bond Activation. Accounts of Chemical Research, 2008, 41, 1013-1025.	15.6	927
2	Artificial Metalloenzymes: Reaction Scope and Optimization Strategies. Chemical Reviews, 2018, 118, 142-231.	47.7	584
3	Rh(I)-Catalyzed Alkylation of Quinolines and Pyridines via Câ˘'H Bond Activation. Journal of the American Chemical Society, 2007, 129, 5332-5333.	13.7	321
4	Enzymatic functionalization of carbonâ€"hydrogen bonds. Chemical Society Reviews, 2011, 40, 2003-2021.	38.1	320
5	Bisphosphonates Inhibit the Growth ofTrypanosomabrucei,Trypanosomacruzi,Leishmaniadonovani,Toxoplasmagondii, andPlasmodiumfalciparum:Â A Potential Route to Chemotherapy. Journal of Medicinal Chemistry, 2001, 44, 909-916.	6.4	312
6	Rh(I)-Catalyzed Direct Arylation of Pyridines and Quinolines. Journal of the American Chemical Society, 2008, 130, 14926-14927.	13.7	305
7	Enantioselective Intramolecular Cï£¿H Amination Catalyzed by Engineered Cytochrome P450 Enzymes Inâ€…Vitro and Inâ€…Vivo. Angewandte Chemie - International Edition, 2013, 52, 9309-9312.	13.8	248
8	Rh(I)-Catalyzed Arylation of Heterocycles via Câ˘'H Bond Activation:Â Expanded Scope through Mechanistic Insight. Journal of the American Chemical Society, 2008, 130, 2493-2500.	13.7	241
9	Artificial Metalloenzymes and Metallopeptide Catalysts for Organic Synthesis. ACS Catalysis, 2013, 3, 2954-2975.	11.2	240
10	Arylation of Heterocycles via Rhodium-Catalyzed Câ˘'H Bond Functionalization. Organic Letters, 2004, 6, 35-38.	4.6	218
11	Experimental and Computational Studies on the Mechanism ofN-Heterocycle Câ˘'H Activation by Rh(I). Journal of the American Chemical Society, 2006, 128, 2452-2462.	13.7	189
12	Engineering a dirhodium artificial metalloenzyme for selective olefin cyclopropanation. Nature Communications, 2015, 6, 7789.	12.8	163
13	Effects of Bisphosphonates on the Growth of Entamoeba histolytica and Plasmodium Species in Vitro and in Vivo. Journal of Medicinal Chemistry, 2004, 47, 175-187.	6.4	155
14	NMR Shifts, Orbitals, and MÂ·Â·Â·Hâ˘'X Bonding in d8Square Planar Metal Complexes. Organometallics, 2006, 25, 3515-3519.	2.3	147
15	Microwave-Promoted Rhodium-Catalyzed Arylation of Heterocycles through Cï£¿H Bond Activation. Angewandte Chemie - International Edition, 2006, 45, 1589-1591.	13.8	134
16	Regioselective Arene Halogenation using the FADâ€Dependent Halogenase RebH. Angewandte Chemie - International Edition, 2013, 52, 5271-5274.	13.8	125
17	Directed Evolution of RebH for Siteâ€Selective Halogenation of Large Biologically Active Molecules. Angewandte Chemie - International Edition, 2015, 54, 4226-4230.	13.8	115
18	Preagostic Rhâ˘'H Interactions and Câ˘'H Bond Functionalization:â€‰ A Combined Experimental and Theoretical Investigation of Rhodium(I) Phosphinite Complexes. Organometallics, 2005, 24, 5737-5746.	2.3	107

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19	Activity of Bisphosphonates againstTrypanosoma bruceirhodesiense. Journal of Medicinal Chemistry, 2002, 45, 2904-2914.	6.4	101
20	Introduction: Biocatalysis in Industry. Chemical Reviews, 2018, 118, 1-3.	47.7	101
21	Combinatorial Alanine Substitution Enables Rapid Optimization of Cytochrome P450_{BM3} for Selective Hydroxylation of Large Substrates. ChemBioChem, 2010, 11, 2502-2505.	2.6	100
22	Evolving artificial metalloenzymes via random mutagenesis. Nature Chemistry, 2018, 10, 318-324.	13.6	98
23	A General Method for Artificial Metalloenzyme Formation through Strainâ€Promoted Azideâ€“Alkyne Cycloaddition. ChemBioChem, 2014, 15, 223-227.	2.6	89
24	Chemoenzymatic elaboration of monosaccharides using engineered cytochrome P450 _{BM3} demethylases. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16550-16555.	7.1	83
25	Late-Stage Diversification of Biologically Active Molecules via Chemoenzymatic Câ€“H Functionalization. ACS Catalysis, 2016, 6, 1451-1454.	11.2	82
26	Beyond the Second Coordination Sphere: Engineering Dirhodium Artificial Metalloenzymes To Enable Protein Control of Transition Metal Catalysis. Accounts of Chemical Research, 2019, 52, 576-584.	15.6	79
27	Directed evolution of RebH for catalyst-controlled halogenation of indole Câ€“H bonds. Chemical Science, 2016, 7, 3720-3729.	7.4	78
28	Improving the Stability and Catalyst Lifetime of the Halogenase RebH By Directed Evolution. ChemBioChem, 2014, 15, 1286-1289.	2.6	72
29	Site-Selective Câ€“H Halogenation Using Flavin-Dependent Halogenases Identified via Family-Wide Activity Profiling. ACS Central Science, 2019, 5, 1844-1856.	11.3	69
30	Manganese terpyridine artificial metalloenzymes for benzylic oxygenation and olefin epoxidation. Tetrahedron, 2014, 70, 4245-4249.	1.9	68
31	Metallopeptide catalysts and artificial metalloenzymes containing unnatural amino acids. Current Opinion in Chemical Biology, 2015, 25, 27-35.	6.1	68
32	Understanding and Improving the Activity of Flavin-Dependent Halogenases via Random and Targeted Mutagenesis. Annual Review of Biochemistry, 2018, 87, 159-185.	11.1	60
33	Catalysts on Demand: Selective Oxidations by Laboratory-Evolved Cytochrome P450 BM3. Chimia, 2009, 63, 309.	0.6	56
34	Understanding Flavin-Dependent Halogenase Reactivity via Substrate Activity Profiling. ACS Catalysis, 2017, 7, 1897-1904.	11.2	56
35	Mono-N-protected amino acid ligands stabilize dimeric palladium(<scp>ii</scp>) complexes of importance to Câ€“H functionalization. Chemical Science, 2017, 8, 5746-5756.	7.4	45
36	Enantioselective Desymmetrization of Methylenedianilines via Enzyme-Catalyzed Remote Halogenation. Journal of the American Chemical Society, 2018, 140, 546-549.	13.7	35

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37	Aromatic Halogenation by Using Bifunctional Flavin Reductaseâ€“Halogenase Fusion Enzymes. ChemBioChem, 2017, 18, 2099-2103.	2.6	30
38	A High-Throughput Method for Directed Evolution of NAD(P)+-Dependent Dehydrogenases for the Reduction of Biomimetic Nicotinamide Analogues. ACS Catalysis, 2019, 9, 11709-11719.	11.2	30
39	Synthesis and evaluation of 2-amino-8-alkoxy quinolines as MCHr1 antagonists. Part 1. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 4873-4877.	2.2	29
40	A Simple Combinatorial Codon Mutagenesis Method for Targeted Protein Engineering. ACS Synthetic Biology, 2017, 6, 416-420.	3.8	27
41	Di-Palladium Complexes are Active Catalysts for Mono-N-Protected Amino Acid-Accelerated Enantioselective Câ€“H Functionalization. ACS Catalysis, 2019, 9, 11386-11397.	11.2	26
42	Selective Câ€“H bond functionalization using repurposed or artificial metalloenzymes. Current Opinion in Chemical Biology, 2017, 37, 48-55.	6.1	25
43	Catalytic Behavior of Monoâ€<i>N</i>â€Protected Aminoâ€Acid Ligands in Ligandâ€Accelerated Câ^’H Activation by Palladium(II). Angewandte Chemie - International Edition, 2020, 59, 10873-10877.	13.8	24
44	Synthesis and evaluation of 2-amino-8-alkoxy quinolines as MCHr1 antagonists. Part 3. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 4883-4886.	2.2	22
45	Development of a Split Esterase for Proteinâ€“Protein Interaction-Dependent Small-Molecule Activation. ACS Central Science, 2019, 5, 1768-1776.	11.3	22
46	Flavin-dependent halogenases catalyze enantioselective olefin halocyclization. Nature Communications, 2021, 12, 3268.	12.8	21
47	Preparation, Characterization, and Oxygenase Activity of a Photocatalytic Artificial Enzyme. ChemBioChem, 2015, 16, 1880-1883.	2.6	20
48	Crystal Structure and Conformational Dynamics of <i>Pyrococcus furiosus</i> Prolyl Oligopeptidase. Biochemistry, 2019, 58, 1616-1626.	2.5	19
49	Controlling the optical and catalytic properties of artificial metalloenzyme photocatalysts using chemogenetic engineering. Chemical Science, 2022, 13, 1459-1468.	7.4	17
50	Rhodium Complexes of 2,6-Bis(dialkylphosphinomethyl)pyridines: Improved Câ€“H Activation, Expanded Reaction Scope, and Catalytic Direct Arylation. Organometallics, 2017, 36, 4699-4706.	2.3	16
51	Iridium-Promoted, Palladium-Catalyzed Direct Arylation of Unactivated Arenes. Organometallics, 2014, 33, 620-623.	2.3	15
52	Metal-responsive regulation of enzyme catalysis using genetically encoded chemical switches. Nature Communications, 2022, 13, 1864.	12.8	15
53	Synthesis and Catalytic Activity of Amino Acids and Metallopeptides with Catalytically Active Metallocyclic Side Chains. Organometallics, 2012, 31, 7328-7331.	2.3	13
54	Engineering Flavin-Dependent Halogenases. Methods in Enzymology, 2016, 575, 93-126.	1.0	13

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55	Phage-Assisted Continuous Evolution and Selection of Enzymes for Chemical Synthesis. ACS Central Science, 2021, 7, 1581-1590.	11.3	13
56	Transmetalation of Alkyl Ligands from Cp*(PMe₃)IrR¹R² to (cod)PtR³X. Organometallics, 2013, 32, 3153-3156.	2.3	12
57	Synthesis, Characterization, and Theoretical Investigation of a Transition State Analogue for Proton Transfer during Câ€“H Activation by a Rhodium-Pincer Complex. Organometallics, 2019, 38, 1407-1412.	2.3	11
58	Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions**. Angewandte Chemie - International Edition, 2021, 60, 23672-23677.	13.8	10
59	Controlling Non-Native Cobalamin Reactivity and Catalysis in the Transcription Factor CarH. ACS Catalysis, 2022, 12, 935-942.	11.2	9
60	Insight into the Scope and Mechanism for Transmetalation of Hydrocarbyl Ligands on Complexes Relevant to Câ€“H Activation. Organometallics, 2021, 40, 6-10.	2.3	7
61	Catalytic Behavior of Monoâ€•N â€Protected Aminoâ€Acid Ligands in Ligandâ€Accelerated Câˆ'H Activation by Palladium(II). Angewandte Chemie, 2020, 132, 10965-10969.	2.0	6
62	Upgrading Natureâ€™s Tools: Expression Enhancement and Preparative Utility of the Halogenase RebH. Synlett, 2014, 25, 1345-1349.	1.8	4
63	Cobalamin-Mediated Electrocatalytic Reduction of Ethyl Chloroacetate in Dimethylformamide. Journal of the Electrochemical Society, 2022, 169, 055501.	2.9	3
64	One-Pot Microwave-Promoted Synthesis of Nitriles from Aldehydes via <i>tert</i>-Butanesulfinyl Imines. Synthesis, 2007, 2007, 3385-3389.	2.3	2
65	Arylation of Heterocycles via Rhodium-Catalyzed Câ€"H Bond Functionalization.. ChemInform, 2004, 35, no.	0.0	0
66	Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions**. Angewandte Chemie, 0, , .	2.0	0
67	Frontispiz: Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions. Angewandte Chemie, 2021, 133, .	2.0	0
68	Frontispiece: Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions. Angewandte Chemie - International Edition, 2021, 60, .	13.8	0