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	Controlling the optical and catalytic properties of artificial metalloenzyme photocatalysts using chemogenetic engineering. Chemical Science, 2022, 13, 1459-1468.	7.4	17
2	Metal-responsive regulation of enzyme catalysis using genetically encoded chemical switches. Nature Communications, 2022, 13, 1864.	12.8	15
3	Controlling Non-Native Cobalamin Reactivity and Catalysis in the Transcription Factor CarH. ACS Catalysis, 2022, 12, 935-942.	11.2	9
4	Cobalamin-Mediated Electrocatalytic Reduction of Ethyl Chloroacetate in Dimethylformamide. Journal of the Electrochemical Society, 2022, 169, 055501.	2.9	3
5	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
6	Flavin-dependent halogenases catalyze enantioselective olefin halocyclization. Nature Communications, 2021, 12, 3268.	12.8	21
7	Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions**. Angewandte Chemie - International Edition, 2021, 60, 23672-23677.	13.8	10
8	Phage-Assisted Continuous Evolution and Selection of Enzymes for Chemical Synthesis. ACS Central Science, 2021, 7, 1581-1590.	11.3	13
9	Frontispiz: Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions. Angewandte Chemie, 2021, 133, .	2.0	0
10	Frontispiece: Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions. Angewandte Chemie - International Edition, 2021, 60, .	13.8	0
11	Catalytic Behavior of Monoâ€<i>N</i>â€Protected Aminoâ€Acid Ligands in Ligandâ€Accelerated Câˆ’H Activation by Palladium(II). Angewandte Chemie - International Edition, 2020, 59, 10873-10877.	13.8	24
12	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
13	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
14	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
15	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
16	Development of a Split Esterase for Proteinâ€"Protein Interaction-Dependent Small-Molecule Activation. ACS Central Science, 2019, 5, 1768-1776.	11.3	22
17	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
18	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

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19	Crystal Structure and Conformational Dynamics of <i>Pyrococcus furiosus</i> Prolyl Oligopeptidase. Biochemistry, 2019, 58, 1616-1626.	2.5	19
20	Evolving artificial metalloenzymes via random mutagenesis. Nature Chemistry, 2018, 10, 318-324.	13.6	98
21	Introduction: Biocatalysis in Industry. Chemical Reviews, 2018, 118, 1-3.	47.7	101
22	Enantioselective Desymmetrization of Methylenedianilines via Enzyme-Catalyzed Remote Halogenation. Journal of the American Chemical Society, 2018, 140, 546-549.	13.7	35
23	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
24	Artificial Metalloenzymes: Reaction Scope and Optimization Strategies. Chemical Reviews, 2018, 118, 142-231.	47.7	584
25	Selective Câ€“H bond functionalization using repurposed or artificial metalloenzymes. Current Opinion in Chemical Biology, 2017, 37, 48-55.	6.1	25
26	Understanding Flavin-Dependent Halogenase Reactivity via Substrate Activity Profiling. ACS Catalysis, 2017, 7, 1897-1904.	11.2	56
27	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
28	A Simple Combinatorial Codon Mutagenesis Method for Targeted Protein Engineering. ACS Synthetic Biology, 2017, 6, 416-420.	3.8	27
29	Aromatic Halogenation by Using Bifunctional Flavin Reductaseâ€“Halogenase Fusion Enzymes. ChemBioChem, 2017, 18, 2099-2103.	2.6	30
30	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
31	Engineering Flavin-Dependent Halogenases. Methods in Enzymology, 2016, 575, 93-126.	1.0	13
32	Directed evolution of RebH for catalyst-controlled halogenation of indole Câ€“H bonds. Chemical Science, 2016, 7, 3720-3729.	7.4	78
33	Late-Stage Diversification of Biologically Active Molecules via Chemoenzymatic Câ€“H Functionalization. ACS Catalysis, 2016, 6, 1451-1454.	11.2	82
34	Preparation, Characterization, and Oxygenase Activity of a Photocatalytic Artificial Enzyme. ChemBioChem, 2015, 16, 1880-1883.	2.6	20
35	Directed Evolution of RebH for Siteâ€Selective Halogenation of Large Biologically Active Molecules. Angewandte Chemie - International Edition, 2015, 54, 4226-4230.	13.8	115
36	Metallopeptide catalysts and artificial metalloenzymes containing unnatural amino acids. Current Opinion in Chemical Biology, 2015, 25, 27-35.	6.1	68

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37	Engineering a dirhodium artificial metalloenzyme for selective olefin cyclopropanation. Nature Communications, 2015, 6, 7789.	12.8	163
38	Upgrading Natureâ€™s Tools: Expression Enhancement and Preparative Utility of the Halogenase RebH. Synlett, 2014, 25, 1345-1349.	1.8	4
39	Improving the Stability and Catalyst Lifetime of the Halogenase RebH By Directed Evolution. ChemBioChem, 2014, 15, 1286-1289.	2.6	72
40	Manganese terpyridine artificial metalloenzymes for benzylic oxygenation and olefin epoxidation. Tetrahedron, 2014, 70, 4245-4249.	1.9	68
41	A General Method for Artificial Metalloenzyme Formation through Strainâ€Promoted Azideâ€“Alkyne Cycloaddition. ChemBioChem, 2014, 15, 223-227.	2.6	89
42	Iridium-Promoted, Palladium-Catalyzed Direct Arylation of Unactivated Arenes. Organometallics, 2014, 33, 620-623.	2.3	15
43	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
44	Artificial Metalloenzymes and Metallopeptide Catalysts for Organic Synthesis. ACS Catalysis, 2013, 3, 2954-2975.	11.2	240
45	Regioselective Arene Halogenation using the FADâ€Dependent Halogenase RebH. Angewandte Chemie - International Edition, 2013, 52, 5271-5274.	13.8	125
46	Transmetalation of Alkyl Ligands from Cp*(PMe₃)IrR¹R² to (cod)PtR³X. Organometallics, 2013, 32, 3153-3156.	2.3	12
47	Synthesis and Catalytic Activity of Amino Acids and Metallopeptides with Catalytically Active Metallocyclic Side Chains. Organometallics, 2012, 31, 7328-7331.	2.3	13
48	Enzymatic functionalization of carbonâ€“hydrogen bonds. Chemical Society Reviews, 2011, 40, 2003-2021.	38.1	320
49	Combinatorial Alanine Substitution Enables Rapid Optimization of Cytochrome P450_{BM3} for Selective Hydroxylation of Large Substrates. ChemBioChem, 2010, 11, 2502-2505.	2.6	100
50	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
51	Catalysts on Demand: Selective Oxidations by Laboratory-Evolved Cytochrome P450 BM3. Chimia, 2009, 63, 309.	0.6	56
52	Direct Functionalization of Nitrogen Heterocycles via Rh-Catalyzed Câ˘’H Bond Activation. Accounts of Chemical Research, 2008, 41, 1013-1025.	15.6	927
53	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
54	Rh(I)-Catalyzed Direct Arylation of Pyridines and Quinolines. Journal of the American Chemical Society, 2008, 130, 14926-14927.	13.7	305

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55	One-Pot Microwave-Promoted Synthesis of Nitriles from Aldehydes via <i>tert</i>-Butanesulfinyl Imines. Synthesis, 2007, 2007, 3385-3389.	2.3	2
56	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
57	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
58	NMR Shifts, Orbitals, and MÂ·Â·Â·Hâ^'X Bonding in d8Square Planar Metal Complexes. Organometallics, 2006, 25, 3515-3519.	2.3	147
59	Microwave-Promoted Rhodium-Catalyzed Arylation of Heterocycles through Cï£¿H Bond Activation. Angewandte Chemie - International Edition, 2006, 45, 1589-1591.	13.8	134
60	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
61	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
62	Arylation of Heterocycles via Rhodium-Catalyzed Câ€"H Bond Functionalization.. ChemInform, 2004, 35, no.	0.0	0
63	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
64	Arylation of Heterocycles via Rhodium-Catalyzed Câ^'H Bond Functionalization. Organic Letters, 2004, 6, 35-38.	4.6	218
65	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
66	Activity of Bisphosphonates againstTrypanosoma bruceirhodesiense. Journal of Medicinal Chemistry, 2002, 45, 2904-2914.	6.4	101
67	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
68	Engineering Dirhodium Artificial Metalloenzymes for Diazo Coupling Cascade Reactions**. Angewandte Chemie, 0, , .	2.0	0