David C Powers

List of Publications by Year
in descending order

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Version: 2024-02-01

71	4,167	172457	110387
papers	citations	29 h-index	64 g-index

95	95	95	4018
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Bimetallic Pd(III) complexes in palladium-catalysed carbonâ€“heteroatom bond formation. Nature Chemistry, 2009, 1, 302-309.	13.6	527
2	Bimetallic Palladium Catalysis: Direct Observation of Pd(III)â^'Pd(III) Intermediates. Journal of the American Chemical Society, 2009, 131, 17050-17051.	13.7	427
3	A Fluoride-Derived Electrophilic Late-Stage Fluorination Reagent for PET Imaging. Science, 2011, 334, 639-642.	12.6	384
4	Bimetallic Redox Synergy in Oxidative Palladium Catalysis. Accounts of Chemical Research, 2012, 45, 840-850.	15.6	309
5	Bimetallic Reductive Elimination from Dinuclear Pd(III) Complexes. Journal of the American Chemical Society, 2010, 132, 14092-14103.	13.7	237
6	On the Mechanism of Palladium-Catalyzed Aromatic Câ^'H Oxidation. Journal of the American Chemical Society, 2010, 132, 14530-14536.	13.7	189
7	Water Oxidation Catalysis by Co(II) Impurities in Co(III)₄O₄ Cubanes. Journal of the American Chemical Society, 2014, 136, 17681-17688.	13.7	152
8	Connecting Binuclear Pd(III) and Mononuclear Pd(IV) Chemistry by Pdâ€“Pd Bond Cleavage. Journal of the American Chemical Society, 2012, 134, 12002-12009.	13.7	148
9	Trap-Free Halogen Photoelimination from Mononuclear Ni(III) Complexes. Journal of the American Chemical Society, 2015, 137, 6472-6475.	13.7	125
10	Synthesis and structure of solution-stable one-dimensional palladium wires. Nature Chemistry, 2011, 3, 949-953.	13.6	115
11	Theoretical Analysis of Cobalt Hangman Porphyrins: Ligand Dearomatization and Mechanistic Implications for Hydrogen Evolution. ACS Catalysis, 2014, 4, 4516-4526.	11.2	90
12	Palladium(III) in Synthesis and Catalysis. Topics in Organometallic Chemistry, 2011, 503, 129-156.	0.7	89
13	Oxidase catalysis via aerobically generated hypervalent iodine intermediates. Nature Chemistry, 2018, 10, 200-204.	13.6	80
14	Electronic Structure of Copper Corroles. Angewandte Chemie - International Edition, 2016, 55, 2176-2180.	13.8	76
15	Halogen Photoelimination from Monomeric Nickel(III) Complexes Enabled by the Secondary Coordination Sphere. Organometallics, 2015, 34, 4766-4774.	2.3	73
16	Two-Electron HCl to H₂ Photocycle Promoted by Ni(II) Polypyridyl Halide Complexes. Journal of the American Chemical Society, 2013, 135, 18876-18883.	13.7	62
17	Electrocatalytic Câ€“N Coupling via Anodically Generated Hypervalent Iodine Intermediates. Journal of the American Chemical Society, 2020, 142, 4990-4995.	13.7	61
18	Direct Characterization of a Reactive Lattice-Confined Ru₂ Nitride by Photocrystallography. Journal of the American Chemical Society, 2017, 139, 2912-2915.	13.7	47

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19	Characterization of a Reactive Rh₂ Nitrenoid by Crystalline Matrix Isolation. Journal of the American Chemical Society, 2019, 141, 16232-16236.	13.7	46
20	Câ€“H Amination Mediated by Cobalt Organoazide Adducts and the Corresponding Cobalt Nitrenoid Intermediates. Journal of the American Chemical Society, 2020, 142, 11232-11243.	13.7	44
21	Gold Corroles as Near-IR Phosphors for Oxygen Sensing. Inorganic Chemistry, 2017, 56, 10991-10997.	4.0	43
22	Dual Polymerization Pathway for Polyolefin-Polar Block Copolymer Synthesis via MILRad: Mechanism and Scope. Journal of the American Chemical Society, 2020, 142, 21469-21483.	13.7	43
23	In Operando Analysis of Diffusion in Porous Metalâ€Organic Framework Catalysts. Chemistry - A European Journal, 2019, 25, 3465-3476.	3.3	42
24	A Transition State Analogue for the Oxidation of Binuclear Palladium(II) to Binuclear Palladium(III) Complexes. Organometallics, 2013, 32, 2042-2045.	2.3	35
25	Halogen photoelimination from dirhodium phosphazane complexes via chloride-bridged intermediates. Chemical Science, 2013, 4, 2880.	7.4	35
26	Probing Substrate Diffusion in Interstitial MOF Chemistry with Kinetic Isotope Effects. Angewandte Chemie - International Edition, 2018, 57, 3676-3681.	13.8	34
27	Photocrystallographic Observation of Halide-Bridged Intermediates in Halogen Photoeliminations. Journal of the American Chemical Society, 2014, 136, 15346-15355.	13.7	31
28	Halide-Bridged Binuclear HX-Splitting Catalysts. Inorganic Chemistry, 2014, 53, 9122-9128.	4.0	31
29	In Crystallo Snapshots of Rh₂-Catalyzed Câ€“H Amination. Journal of the American Chemical Society, 2020, 142, 19862-19867.	13.7	31
30	Observation of a Photogenerated Rh₂ Nitrenoid Intermediate in Câ€“H Amination. Journal of the American Chemical Society, 2018, 140, 10412-10415.	13.7	30
31	Nitrogen Atom Transfer Catalysis by Metallonitrene Câˆ’H Insertion: Photocatalytic Amidation of Aldehydes. Angewandte Chemie - International Edition, 2022, 61, .	13.8	29
32	cis-Decalin oxidation as a stereochemical probe of in-MOF versus on-MOF catalysis. Chemical Communications, 2017, 53, 7377-7380.	4.1	28
33	Halogen Photoelimination from Sb^V Dihalide Corroles. Inorganic Chemistry, 2018, 57, 5333-5342.	4.0	28
34	Oxidation Catalysis by an Aerobically Generated Dessâ€“Martin Periodinane Analogue. Angewandte Chemie - International Edition, 2018, 57, 7205-7209.	13.8	26
35	The Role of Iodanyl Radicals as Critical Chain Carriers in Aerobic Hypervalent Iodine Chemistry. CheM, 2019, 5, 2388-2404.	11.7	26
36	Stereoelectronic Effects in Cl₂ Elimination from Binuclear Pt(III) Complexes. Inorganic Chemistry, 2016, 55, 11815-11820.	4.0	22

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37	Measuring and Modulating Substrate Confinement during Nitrogen-Atom Transfer in a Ru₂-Based Metal-Organic Framework. Journal of the American Chemical Society, 2019, 141, 19203-19207.	13.7	21
38	In crystallo organometallic chemistry. Chemical Communications, 2021, 57, 4993-5003.	4.1	19
39	Crystallography of Reactive Intermediates. Comments on Inorganic Chemistry, 2020, 40, 116-158.	5.2	18
40	Thermal Reactions of 8-Methylbicyclo[4.2.0]oct-2-enes:Â Competitive Diradical-Mediated [1,3] Sigmatropic, Stereomutation, and Fragmentation Processes. Journal of Organic Chemistry, 2005, 70, 8913-8918.	3.2	16
41	Tandem redox mediator/Ni(<scp>II</scp>) trihalide complex photocycle for hydrogen evolution from HCl. Chemical Science, 2015, 6, 917-922.	7.4	16
42	Templating metastable Pd2 carboxylate aggregates. Chemical Science, 2019, 10, 1823-1830.	7.4	15
43	Iodosylbenzene Coordination Chemistry Relevant to Metalâ€“Organic Framework Catalysis. Inorganic Chemistry, 2019, 58, 10543-10553.	4.0	14
44	Multielectron Câ€“H photoactivation with an Sb(v) oxo corrole. Chemical Communications, 2020, 56, 5247-5250.	4.1	14
45	Thermal Chemistry of Bicyclo[4.2.0]oct-2-enes. Journal of Organic Chemistry, 2007, 72, 187-194.	3.2	13
46	Atomically Precise Crystalline Materials Based on Kinetically Inert Metal Ions via Reticular Mechanopolymerization. Angewandte Chemie - International Edition, 2020, 59, 10878-10883.	13.8	13
47	Diversification of Amidyl Radical Intermediates Derived from Câ€“H Aminopyridylation. Organic Letters, 2022, 24, 2762-2766.	4.6	13
48	Traceless Benzylic Câˆ’H Amination via BifunctionalNâ€Aminopyridinium Intermediates. Angewandte Chemie - International Edition, 2022, 61, e202200665.	13.8	13
49	Probing Substrate Diffusion in Interstitial MOF Chemistry with Kinetic Isotope Effects. Angewandte Chemie, 2018, 130, 3738-3743.	2.0	12
50	Kinetic Probes of the Origin of Activity in MOF-Based Câ€“H Oxidation Catalysis. ACS Catalysis, 2022, 12, 3858-3867.	11.2	12
51	High-Frequency and -Field EPR (HFEPR) Investigation of a Pseudotetrahedral Cr^{IV} Siloxide Complex and Computational Studies of Related Cr^{IV}L₄ Systems. Inorganic Chemistry, 2019, 58, 4907-4920.	4.0	11
52	N-Aminopyridinium reagents as traceless activating groups in the synthesis of N-Aryl aziridines. Nature Communications, 2022, 13, .	12.8	10
53	Thermal Reactions of 7-d- and 8-d-Bicyclo[4.2.0]oct-2-enes. Journal of the American Chemical Society, 2006, 128, 10020-10021.	13.7	9
54	Oxidation Catalysis by an Aerobically Generated Dessâ€“Martin Periodinane Analogue. Angewandte Chemie, 2018, 130, 7323-7327.	2.0	9

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55	Metallopolymerization as a Strategy to Translate Ligand-Modulated Chemoselectivity to Porous Catalysts. Organometallics, 2019, 38, 3436-3443.	2.3	9
56	Thermal isomerizations of cis,anti,cis-tricyclo[6.4.0.02,7]dodec-3-eneÂto trans- and cis,endo-tricyclo[6.2.2.02,7]dodec-9-ene: diradical conformations and stereochemical outcomes in [1,3] carbon shifts. Tetrahedron, 2007, 63, 6331-6338.	1.9	8
57	Hypervalent Iodine Chemistry as a Platform for Aerobic Oxidation Catalysis. Synlett, 2019, 30, 257-262.	1.8	7
58	Nitrene Photochemistry of Manganese Nâ€Haloamides**. Angewandte Chemie - International Edition, 2021, 60, 26647-26655.	13.8	7
59	Thermal Isomerization ofcis,anti,cis-Tricyclo[6.3.0.02,7]undec-3-ene toendo-Tricyclo[5.2.2.02,6]undec-8-ene. Organic Letters, 2005, 7, 5195-5197.	4.6	6
60	Analysis of Natural Buffer Systems and the Impact of Acid Rain. An Environmental Project for First-Year Chemistry Students. Journal of Chemical Education, 2005, 82, 274.	2.3	6
61	Leveraging Exchange Kinetics for the Synthesis of Atomically Precise Porous Catalysts. ChemCatChem, 2021, 13, 2117-2131.	3.7	6
62	Exploring Green Chemistry with Aerobic Hypervalent Iodine Catalysis. Journal of Chemical Education, 2020, 97, 3816-3821.	2.3	4
63	Electronic structure analysis and reactivity of the bimetallic bis-titanocene vinylcarboxylate complex, [(Cp2Ti)2(O2C3TMS2)]. Polyhedron, 2021, 207, 115368.	2.2	4
64	Nitrogen Atom Transfer Catalysis by Metallonitrene Câ^'H Insertion: Photocatalytic Amidation of Aldehydes. Angewandte Chemie, 2022, 134, .	2.0	4
65	Synthesis of atomically precise single-crystalline Ru₂-based coordination polymers. Dalton Transactions, 2020, 49, 16077-16081.	3.3	3
66	Atomically Precise Crystalline Materials Based on Kinetically Inert Metal Ions via Reticular Mechanopolymerization. Angewandte Chemie, 2020, 132, 10970-10975.	2.0	3
67	Traceless Benzylic Câ€"H Amination via Bifunctional Nâ€Aminopyridinium Intermediates. Angewandte Chemie, 0, , .	2.0	3
68	Kineticversusthermodynamic metalation enables synthesis of isostructural homo- and heterometallic trinuclear clusters. Chemical Communications, 2020, 56, 5893-5896.	4.1	2
69	Nitrene Photochemistry of Manganese Nâ€Haloamides**. Angewandte Chemie, 2021, 133, 26851-26859.	2.0	2
70	Cis-Divacant Octahedral Fe(II) in a Dimensionally Reduced Family of 2-(Pyridin-2-yl)pyrrolide Complexes. Inorganic Chemistry, 2021, 60, 15617-15626.	4.0	1
71	Synthesis and Characterization of Nitrogen Subvalence in a Pt Metallonitrene. Trends in Chemistry, 2021, 3, 251-253.	8.5	0