Michael J Zdilla

List of Publications by Year
in descending order

83	2,155	236925	243625
papers	citations	25 h-index	44 g-index

88	88	88	2861
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Properties and Promise of Catenated Nitrogen Systems As High-Energy-Density Materials. Chemical Reviews, 2020, 120, 5682-5744.	47.7	172
2	H₂-Driven Deoxygenation of Epoxides and Diols to Alkenes Catalyzed by Methyltrioxorhenium. Inorganic Chemistry, 2009, 48, 9998-10000.	4.0	152
3	Effect of Interlayer Spacing on the Activity of Layered Manganese Oxide Bilayer Catalysts for the Oxygen Evolution Reaction. Journal of the American Chemical Society, 2017, 139, 1863-1870.	13.7	144
4	Mechanism of Catalytic Aziridination with Manganese Corrole:Â The Often Postulated High-Valent Mn(V) Imido Is Not the Group Transfer Reagent. Journal of the American Chemical Society, 2006, 128, 16971-16979.	13.7	129
5	Nickel Confined in the Interlayer Region of Birnessite: an Active Electrocatalyst for Water Oxidation. Angewandte Chemie - International Edition, 2016, 55, 10381-10385.	13.8	112
6	Hydrogen Atom Transfer Reactions of Imido Manganese(V) Corrole:â€‰ One Reaction with Two Mechanistic Pathways. Journal of the American Chemical Society, 2007, 129, 11505-11511.	13.7	85
7	Mechanism of and exquisite selectivity for Oâ€“O bond formation by the heme-dependent chlorite dismutase. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15654-15659.	7.1	80
8	Intercalation of Cobalt into the Interlayer of Birnessite Improves Oxygen Evolution Catalysis. ACS Catalysis, 2016, 6, 7739-7743.	11.2	79
9	Copper-Intercalated Birnessite as a Water Oxidation Catalyst. Langmuir, 2015, 31, 12807-12813.	3.5	69
10	Frustrated Solvation Structures Can Enhance Electron Transfer Rates. Journal of Physical Chemistry Letters, 2015, 6, 4804-4808.	4.6	67
11	Redox properties of birnessite from a defect perspective. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9523-9528.	7.1	50
12	Total Synthesis of (â˜')â€Melotenineâ€…A. Angewandte Chemie - International Edition, 2013, 52, 8309-8311.	13.8	45
13	Systematic Doping of Cobalt into Layered Manganese Oxide Sheets Substantially Enhances Water Oxidation Catalysis. Inorganic Chemistry, 2018, 57, 557-564.	4.0	43
14	Decoration of the layered manganese oxide birnessite with Mn(<scp>ii</scp>/<scp>iii</scp>) gives a new water oxidation catalyst with fifty-fold turnover number enhancement. Dalton Transactions, 2015, 44, 12981-12984.	3.3	40
15	Water Oxidation Catalyzed by Cobalt Oxide Supported on the Mattagamite Phase of CoTe₂. ACS Catalysis, 2016, 6, 7393-7397.	11.2	39
16	Concerted Dismutation of Chlorite Ion: Water-Soluble Iron-Porphyrins As First Generation Model Complexes for Chlorite Dismutase. Inorganic Chemistry, 2009, 48, 2260-2268.	4.0	38
17	Enhanced Davydov Splitting in Crystals of a Perylene Diimide Derivative. Journal of Physical Chemistry Letters, 2017, 8, 1118-1123.	4.6	37
18	Synergistic In-Layer Cobalt Doping and Interlayer Iron Intercalation into Layered MnO₂ Produces an Efficient Water Oxidation Electrocatalyst. ACS Energy Letters, 2018, 3, 2280-2285.	17.4	36

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19	Bioinspired Dismutation of Chlorite to Dioxygen and Chloride Catalyzed by a Waterâ€Soluble Iron Porphyrin. Angewandte Chemie - International Edition, 2008, 47, 7697-7700.	13.8	33
20	Synthesis and Elaboration of the Dinuclear Iron-Imide Cluster Core [Fe2(Î¼-NR)2]2+. Inorganic Chemistry, 2007, 46, 1071-1080.	4.0	30
21	Enantioselective Synthesis of Cocaine C-1 Analogues using Sulfinimines (N-Sulfinyl Imines). Journal of Organic Chemistry, 2012, 77, 2345-2359.	3.2	29
22	Nickel Confined in the Interlayer Region of Birnessite: an Active Electrocatalyst for Water Oxidation. Angewandte Chemie, 2016, 128, 10537-10541.	2.0	28
23	Acceleration of an Aromatic Claisen Rearrangement via a Designed Spiroligozyme Catalyst that Mimics the Ketosteroid Isomerase Catalytic Dyad. Journal of the American Chemical Society, 2014, 136, 3817-3827.	13.7	27
24	Manganese(III) Corrole-Oxidant Adduct as the Active Intermediate in Catalytic Hydrogen Atom Transfer. Inorganic Chemistry, 2008, 47, 10718-10722.	4.0	26
25	Iron-Mediated Hydrazine Reduction and the Formation of Iron-Arylimide Heterocubanes. Inorganic Chemistry, 2011, 50, 1551-1562.	4.0	25
26	Complexes of 2,5-Bis(Î±-pyridyl)pyrrolate with Pd(II) and Pt(II): A Monoanionic Iso-Ï€-Electron Ligand Analog of Terpyridine. Inorganic Chemistry, 2012, 51, 10122-10128.	4.0	25
27	Synthesis of a High-Valent, Four-Coordinate Manganese Cubane Cluster with a Pendant Mn Atom: Photosystem II-Inspired Manganeseâ€“Nitrogen Clusters. Inorganic Chemistry, 2012, 51, 3950-3952.	4.0	23
28	Equilibrium Thermodynamics To Form a Rhodium Formyl Complex from Reactions of CO and H₂: Metal Ïƒ Donor Activation of CO. Journal of the American Chemical Society, 2014, 136, 5856-5859.	13.7	22
29	A Selfâ€Binding, Meltâ€Castable, Crystalline Organic Electrolyte for Sodium Ion Conduction. Angewandte Chemie - International Edition, 2016, 55, 15254-15257.	13.8	21
30	Intramolecular Pyridone/Enyne Photocycloaddition: Partitioning of the [4 + 4] and [2 + 2] Pathways. Organic Letters, 2011, 13, 2180-2183.	4.6	20
31	Synthesis of Tetranuclear, Four-Coordinate Manganese Clusters with â€œPinned Butterflyâ€•Geometry Formed by Metal-Mediated Nâ€“N Bond Cleavage in Diphenylhydrazine. Journal of the American Chemical Society, 2011, 133, 4208-4211.	13.7	19
32	Bulk-Phase Ion Conduction in Cocrystalline LiClÂ·N,N-Dimethylformamide: A New Paradigm for Solid Electrolytes Based upon the Pearson Hardâ€“Soft Acidâ€“Base Concept. Chemistry of Materials, 2015, 27, 5479-5482.	6.7	19
33	Reactivity of a Sterically Hindered Fe(II) Thiolate Dimer with Amines and Hydrazines. Inorganic Chemistry, 2008, 47, 11382-11390.	4.0	18
34	Biomimetic Total Syntheses of (â€“)â€Leucoridinesâ€…A and C through the Dimerization of (â€“)â€Dihydrovalparicine. Angewandte Chemie - International Edition, 2015, 54, 12632-12635.	13.8	17
35	Architectural Spiroligomers Designed for Binuclear Metal Complex Templating. Inorganic Chemistry, 2013, 52, 6457-6463.	4.0	16
36	Evaluation of the Rh^(II)â€“Rh^(II) Bond Dissociation Enthalpy for [(TMTAA)Rh]₂ by ¹H NMR T₂ Measurements: Application in Determining the Rhâ€“C(O)â€“ BDE in [(TMTAA)Rh]₂Câ•O. Inorganic Chemistry, 2013, 52, 11509-11513.	4.0	15

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37	Reactive Pendant Mnâ•O in a Synthetic Structural Model of a Proposed S₄ State in the Photosynthetic Oxygen Evolving Complex. Journal of the American Chemical Society, 2017, 139, 4675-4681.	13.7	15
38	Effect of water frustration on water oxidation catalysis in the nanoconfined interlayers of layered manganese oxides birnessite and buserite. Journal of Materials Chemistry A, 2021, 9, 6924-6932.	10.3	15
39	Synthesis of Conformationally Constrained 5-Fluoro- and 5-Hydroxymethanopyrrolidines. Ring-Puckered Mimics of Gauche- and Anti-3-Fluoro- and 3-Hydroxypyrrolidines. Journal of Organic Chemistry, 2011, 76, 3626-3634.	3.2	14
40	Synthesis and Electrochemical Reactivity of Molybdenum Dicarbonyl Supported by a Redox-Active Î±-Diimine Ligand. Inorganic Chemistry, 2013, 52, 5457-5463.	4.0	14
41	Electronic Structure of Manganese Complexes of the Redoxâ€Nonâ€innocent Tetrazene Ligand and Evidence for the Metalâ€Azide/Imido Cycloaddition Intermediate. Chemistry - A European Journal, 2016, 22, 10548-10557.	3.3	14
42	Synthesis and Structure of 2,5-Bis[N-(2,6-mesityl)iminomethyl]pyrrolylcobalt(II): Evidence for One-Electron-Oxidized, Redox Noninnocent Ligand Behavior. Inorganic Chemistry, 2017, 56, 3377-3385.	4.0	12
43	Multinuclear Clusters of Manganese and Lithium with Silsesquioxane-Derived Ligands: Synthesis and Ligand Rearrangement by Dioxygen- and Base-Mediated Siâ€“O Bond Cleavage. Inorganic Chemistry, 2021, 60, 2866-2871.	4.0	12
44	Synthesis, Structure, and Magnetic Studies of Manganeseâ€“Oxygen Clusters of Reduced Coordination Number, Featuring an Unchelated, 5-Coordinate Octanuclear Manganese Cluster with Water-Derived Oxo Ligands. Inorganic Chemistry, 2012, 51, 10095-10104.	4.0	11
45	Activation of Câ€“H, Nâ€“H, and Oâ€“H Bonds via Proton-Coupled Electron Transfer to a Mn(III) Complex of Redox-Noninnocent Octaazacyclotetradecadiene, a Catenated-Nitrogen Macrocyclic Ligand. Journal of the American Chemical Society, 2019, 141, 5699-5709.	13.7	11
46	An isolable, metastable, geometrically unique manganese(iv) trihydrazide complex poised for reactivity. Chemical Communications, 2011, 47, 9696.	4.1	10
47	Mechanistic Elucidation of the Stepwise Formation of a Tetranuclear Manganese Pinned Butterfly Cluster via Nâ€“N Bond Cleavage, Hydrogen Atom Transfer, and Cluster Rearrangement. Journal of the American Chemical Society, 2014, 136, 17974-17986.	13.7	10
48	Formation of the tetranuclear, tetrakis-terminal-imido Mn₄^{IV}(N^tBu)₈cubane cluster by four-electron reductive elimination of^tBuNî€N^tBu. The role of the s-block ion in stabilization of high-oxidation state intermediates. Chemical Communications, 2014, 50, 1061-1063.	4.1	10
49	Asymmetric total synthesis of (â^)-melotenine A. Tetrahedron, 2016, 72, 6107-6112.	1.9	10
50	Experimental and Theoretical Investigation of the Ion Conduction Mechanism of Tris(adiponitrile)perchloratosodium, a Self-Binding, Melt-Castable Crystalline Sodium Electrolyte. Chemistry of Materials, 2019, 31, 8850-8863.	6.7	9
51	The polyoctahedral silsesquioxane (POSS) 1,3,5,7,9,11,13,15-octaphenylpentacyclo[9.5.1.1^{3,9}.1^{5,15}.1^{7,13}]octasiloxane (octaphenyl-POSS). Acta Crystallographica Section C, Structural Chemistry, 2014, 70, 971-974.	0.5	8
52	Stable tetramethyl-1,10-phenanthroline osmium(<scp>iii</scp>) complex in neutral pH as a photoluminescence-following electron-transfer reagent for the detection of acetaminophen in urine and pharmaceutical formulations. Analytical Methods, 2014, 6, 5818-5829.	2.7	8
53	Heterobimetallic Complexes of Rhodium Dibenzotetramethylaza[14]annulene [(tmtaa)Rh-M]: Formation, Structures, and Bond Dissociation Energetics. Inorganic Chemistry, 2015, 54, 273-279.	4.0	8
54	Amorphous aluminum-carbide and aluminumâ€“magnesium-carbide nanoparticles from gas phase activation of trimethylaluminum and octamethyldialuminummagnesium using simultaneous spatially and temporally focused ultrashort laser pulses. Nano Structures Nano Objects, 2016, 6, 1-4.	3.5	8

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55	Manganeseâ€Mediated Linkage of Perchlorate to Aminotetrazoles Produces Twice the Energy Density of the Unmetalated Salt. Chemistry - A European Journal, 2017, 23, 14138-14142.	3.3	8
56	Concise Syntheses of bisâ€Strychnos Alkaloids (â^')â€Sungucine, (â^')â€Isosungucine, and (â^')â€Strychnogucineâ€...B from (â^')â€Strychnine. Chemistry - A European Journal, 2016, 22, 11593-11596.	3.3	7
57	Electronic structure and solution behavior of a tris(N,Nâ€²-diphenylhydrazido)manganese(iv) propeller complex. Dalton Transactions, 2012, 41, 8093.	3.3	6
58	Small Molecule Anticonvulsant Agents with Potent In Vitro Neuroprotection. Journal of Molecular Neuroscience, 2012, 47, 368-379.	2.3	6
59	A Selfâ€Binding, Meltâ€Castable, Crystalline Organic Electrolyte for Sodium Ion Conduction. Angewandte Chemie, 2016, 128, 15480-15483.	2.0	6
60	Unravelling the structural and dynamical complexity of the equilibrium liquid grain-binding layer in highly conductive organic crystalline electrolytes. Journal of Materials Chemistry A, 2018, 6, 4394-4404.	10.3	6
61	Metal-Binding Q-Proline Macrocycles. Journal of Organic Chemistry, 2021, 86, 4867-4876.	3.2	6
62	Reimagining the e_g¹ Electronic State in Oxygen Evolution Catalysis: Oxidationâ€Stateâ€Modulated Superlattices as a New Type of Heterostructure for Maximizing Catalysis. Advanced Energy Materials, 2021, 11, 2101636.	19.5	6
63	Covalent Metalâ€“Metal-Bonded Mn₄ Tetrahedron Inscribed within a Four-Coordinate Manganese Cubane Cluster, As Evidenced by Unexpected Temperature-Independent Diamagnetism. Inorganic Chemistry, 2017, 56, 3733-3737.	4.0	5
64	Crystal structure and ionic conductivity of the soft solid crystal: isoquinoline3â€¢(LiCl)2. Ionics, 2018, 24, 343-349.	2.4	5
65	Ubiquity of cubanes in bioinorganic relevant compounds. Coordination Chemistry Reviews, 2022, 450, 214168.	18.8	5
66	Easy access to the Wilkinson tris(tert-butylimido)nitridomanganate(VII) complex from commercially available starting materials. Inorganic Chemistry Communication, 2013, 37, 225-227.	3.9	4
67	Preparation of a â€œtwisted basketâ€•Mn4N8 cluster: a two-hydrogen-atom reduced analogue of the Mn4N8 pinned butterfly. Chemical Communications, 2014, 50, 7780.	4.1	3
68	A Protocol for Safe Lithiation Reactions Using Organolithium Reagents. Journal of Visualized Experiments, 2016, , .	0.3	3
69	Structure of a pentamanganese(II)â€“phenoxide cluster with a central five-coordinate oxide: Mn^{II}₅(Î¼-OPh)₆(Î¼₃-OPh)₂(Î¼₅-O)(Py)₆·Py (Py is pyridine). Acta Crystallographica Section C, Structural Chemistry, 2017, 73, 270-275.	0.5	3
70	Synthesis of Two Lead Complexes of Propellant Stabilizer Compounds: In Pursuit of Novel Propellant Additives. ChemistrySelect, 2017, 2, 11673-11676.	1.5	3
71	Solvate sponge crystals of (DMF)₃NaClO₄: reversible pressure/temperature controlled juicing in a melt/press-castable sodium-ion conductor. Chemical Science, 2021, 12, 5574-5581.	7.4	3
72	Transition-metal-mediated reduction and reversible double-cyclization of cyanuric triazide to an asymmetric bitetrazolate involving cleavage of the six-membered aromatic ring. Chemical Science, 2021, 12, 2268-2275.	7.4	3

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73	Reaction Mechanism and Energetics of Decomposition of Tetrakis(1,3-dimethyltetrazol-5-imidoperchloratomanganese(II)) from Quantum-Mechanics-based Reactive Dynamics. Journal of the American Chemical Society, 2021, 143, 16960-16975.	13.7	3
74	Mechanism of Ion Conduction and Dynamics in Tris(N,N-dimethylformamide) Perchloratosodium Solid Electrolytes. Journal of Physical Chemistry C, 2022, 126, 4744-4750.	3.1	3
75	Structure of salts of lithium chloride and lithium hexafluorophosphate as solvates with pyridine and vinylpyridine and structural comparisons: (C₅H₅N)LiPF₆, [p-(CH₂=CH)C₅H₄N]LiPF₆, [(C₅H₅N)LiCl]_n, and [p-(CH₂=CH)C₅H₄N]₂Li(Î¼-Cl)₂Li[p-(CH₂=CH)C₅H₄N]. Acta Crystallographica Section C, Structural Chemistry, 2017, 73, 264-269.	0.5	2
76	Magnetism and EPR Studies of Binuclear Ruthenium Hydride Binuclear Species Bearing Redox-Active Ligands. Inorganic Chemistry, 2018, 57, 7036-7043.	4.0	2
77	Solution and Solid State Properties for Low-Spin Cobalt(II) Dibenzotetramethyltetraaza[14]annulene [(tmtaa)Co^{II}] and the Monopyridine Complex. Inorganic Chemistry, 2019, 58, 1224-1233.	4.0	2
78	The solid-state conformation of the topical antifungal agent O-naphthalen-2-yl N-methyl-N-(3-methylphenyl)carbamothioate. Acta Crystallographica Section C, Structural Chemistry, 2018, 74, 1495-1501.	0.5	2
79	Hemicubane topological analogs of the oxygen-evolving complex of photosystem II mediating water-assisted propylene carbonate oxidation. Chemical Communications, 2022, 58, 2532-2535.	4.1	2
80	Synthesis of a tethered dibenzotetramethyltetraaza[14]annulene macrocycle and the di-nickel(<scp>ii</scp>) derivative. New Journal of Chemistry, 2018, 42, 19369-19376.	2.8	1
81	trans-Bis(hinokitiolato)copper(II)trans-bis(hinokitiolato)palladium(II) cocrystals with (5/1) and (3/2) formulations. Acta Crystallographica Section C: Crystal Structure Communications, 2011, 67, m100-m104.	0.4	0
82	Crystal structures of sodium-, lithium-, and ammonium 4,5-dihydroxybenzene-1,3-disulfonate (tiron) hydrates. Acta Crystallographica Section E: Crystallographic Communications, 2018, 74, 918-925.	0.5	0
83	Crystal structures of two 1,3-thiazolidin-4-one derivatives featuring sulfide and sulfone functional groups. Acta Crystallographica Section E: Crystallographic Communications, 2018, 74, 1695-1699.	0.5	0