David L Tierney

List of Publications by Year
in descending order

55 papers	1,691 citations	279798 23 h-index	289244 40 g-index
56 all docs	56 docs citations	56 times ranked	1832 citing authors

#	Article	IF	Citations
1	Dipicolinic Acid Derivatives as Inhibitors of New Delhi Metallo-Î²-lactamase-1. Journal of Medicinal Chemistry, 2017, 60, 7267-7283.	6.4	120
2	A general reaction mechanism for carbapenem hydrolysis by mononuclear and binuclear metallo-Î²-lactamases. Nature Communications, 2017, 8, 538.	12.8	98
3	Csp³â€“Csp³ Bond-Forming Reductive Elimination from Well-Defined Copper(III) Complexes. Journal of the American Chemical Society, 2019, 141, 3153-3159.	13.7	98
4	Mechanistic and Spectroscopic Studies of Metallo-Î²-lactamase NDM-1. Biochemistry, 2012, 51, 3839-3847.	2.5	94
5	Reduction of hexavalent chromium by the thermophilic methanogen Methanothermobacter thermautotrophicus. Geochimica Et Cosmochimica Acta, 2015, 148, 442-456.	3.9	89
6	X-ray Absorption Spectroscopy of the Iron Site in Escherichia coli Fe(III) Superoxide Dismutase. Biochemistry, 1995, 34, 1661-1668.	2.5	85
7	Evolution of New Delhi metallo-Î²-lactamase (NDM) in the clinic: Effects of NDM mutations on stability, zinc affinity, and mono-zinc activity. Journal of Biological Chemistry, 2018, 293, 12606-12618.	3.4	79
8	Copperâ€Mediated Trifluoromethylation of Benzylic Csp³â”H Bonds. Chemistry - A European Journal, 2018, 24, 11559-11563.	3.3	76
9	ENDOR Studies of the Ligation and Structure of the Non-Heme Iron Site in ACC Oxidase. Journal of the American Chemical Society, 2005, 127, 7005-7013.	13.7	70
10	The Metallo-Î²-lactamase GOB Is a Mono-Zn(II) Enzyme with a Novel Active Site. Journal of Biological Chemistry, 2007, 282, 18286-18293.	3.4	70
11	Spectroscopic and Mechanistic Studies of Heterodimetallic Forms of Metallo-Î²-lactamase NDM-1. Journal of the American Chemical Society, 2014, 136, 7273-7285.	13.7	60
12	Biochemical, Mechanistic, and Spectroscopic Characterization of Metallo-Î²-lactamase VIM-2. Biochemistry, 2014, 53, 7321-7331.	2.5	57
13	Model Complexes of Cobalt-Substituted Matrix Metalloproteinases:â€‰ Tools for Inhibitor Design. Inorganic Chemistry, 2006, 45, 7306-7315.	4.0	52
14	Clinical Variants of New Delhi Metallo-Î²-Lactamase Are Evolving To Overcome Zinc Scarcity. ACS Infectious Diseases, 2017, 3, 927-940.	3.8	49
15	Probing the Interaction of Aspergillomarasmine A with Metallo-Î²-lactamases NDM-1, VIM-2, and IMP-7. ACS Infectious Diseases, 2018, 4, 135-145.	3.8	48
16	Structural and Kinetic Studies on Metallo-Î²-lactamase IMP-1. Biochemistry, 2011, 50, 9125-9134.	2.5	42
17	Sequential Binding of Cobalt(II) to Metallo-Î²-lactamase CcrA. Biochemistry, 2006, 45, 1313-1320.	2.5	41
18	Integrated Paramagnetic Resonance of High-Spin Co(II) in Axial Symmetry: Chemical Separation of Dipolar and Contact Electronâ”Nuclear Couplings. Inorganic Chemistry, 2008, 47, 6701-6710.	4.0	40

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19	Halide-Promoted Dioxygenolysis of a Carbonâ€“Carbon Bond by a Copper(II) Diketonate Complex. Journal of the American Chemical Society, 2014, 136, 7821-7824.	13.7	29
20	Second-Sphere Effects in Dinuclear Fe^{III}Zn^{II} Hydrolase Biomimetics: Tuning Binding and Reactivity Properties. Inorganic Chemistry, 2018, 57, 187-203.	4.0	29
21	AIMâ€1: An Antibioticâ€Degrading Metallohydrolase That Displays Mechanistic Flexibility. Chemistry - A European Journal, 2016, 22, 17704-17714.	3.3	28
22	Anisotropic Fermi Couplings Due to Large Unquenched Orbital Angular Momentum: Q-Band ¹H, ¹⁴N, and ¹¹B ENDOR of Bis(trispyrazolylborate) Cobalt(II). Journal of the American Chemical Society, 2009, 131, 10421-10429.	13.7	26
23	Investigating the position of the hairpin loop in New Delhi metallo-Î²-lactamase, NDM-1, during catalysis and inhibitor binding. Journal of Inorganic Biochemistry, 2016, 156, 35-39.	3.5	26
24	Photoinitiated Dioxygenaseâ€Type Reactivity of Openâ€Shell 3d Divalent Metal Flavonolato Complexes. European Journal of Inorganic Chemistry, 2012, 2012, 4750-4757.	2.0	23
25	Chiral Bimetallic Catalysts Derived from Chiral Metal Phosphates: Enantioselective Three-Component Asymmetric Aza-Dielsâ€“Alder Reactions of Cyclic Ketones. Journal of Organic Chemistry, 2015, 80, 7984-7993.	3.2	20
26	Investigation of Dipicolinic Acid Isosteres for the Inhibition of Metalloâ€Î²â€Lactamases. ChemMedChem, 2019, 14, 1271-1282.	3.2	20
27	Magnetization Slow Dynamics in Ferrocenium Complexes. Chemistry - A European Journal, 2019, 25, 10625-10632.	3.3	20
28	Dual Mode EPR Studies of a Kramers ion: High-Spin Co(II) in 4-, 5- and 6-Coordination. Applied Magnetic Resonance, 2011, 40, 501-511.	1.2	19
29	â€˜Unconventionalâ€™ Coordination Chemistry by Metal Chelating Fragments in a Metalloprotein Active Site. Journal of the American Chemical Society, 2014, 136, 5400-5406.	13.7	19
30	X-Ray Absorption Spectroscopy of Dinuclear Metallohydrolases. Biophysical Journal, 2014, 107, 1263-1272.	0.5	17
31	A Single Salt Bridge in VIM-20 Increases Protein Stability and Antibiotic Resistance under Low-Zinc Conditions. MBio, 2019, 10, .	4.1	16
32	Jahnâ€“Teller Dynamics in a Series of High-Symmetry Co(II) Chelates Determine Paramagnetic Relaxation Enhancements. Journal of Physical Chemistry A, 2012, 116, 10959-10972.	2.5	14
33	Metal Ion Dependence of the Matrix Metalloproteinase-1 Mechanism. Biochemistry, 2015, 54, 3631-3639.	2.5	11
34	A Noncanonical Metal Center Drives the Activity of the Sediminispirochaeta smaragdinae Metallo-Î²-lactamase SPS-1. Biochemistry, 2018, 57, 5218-5229.	2.5	11
35	Frequency-Switching Inversion-Recovery for Severely Hyperfine-Shifted NMR:â€‰ Evidence of Asymmetric Electron Relaxation in High-Spin Co(II). Inorganic Chemistry, 2006, 45, 10016-10018.	4.0	10
36	Paramagnetic Resonance of Cobalt(II) Trispyrazolylmethanes and Counterion Association. Inorganic Chemistry, 2017, 56, 618-626.	4.0	8

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37	Combining Novel Visualizations and Synthesis To Explore Structureâ€“Property Relationships Using Cobalt Complexes. Journal of Chemical Education, 2017, 94, 1952-1959.	2.3	8
38	What Is the True Color of Fresh Meat? A Biophysical Undergraduate Laboratory Experiment Investigating the Effects of Ligand Binding on Myoglobin Using Optical, EPR, and NMR Spectroscopy. Journal of Chemical Education, 2011, 88, 223-225.	2.3	7
39	Anion Effects in Oxidative Aliphatic Carbonâ€“Carbon Bond Cleavage Reactions of Cu(II) Chlorodiketonate Complexes. Inorganic Chemistry, 2016, 55, 6916-6928.	4.0	7
40	Photochemistry and Anion-Controlled Structure of Fe(III) Complexes with an Î±-Hydroxy Acid-Containing Tripodal Amine Chelate. Inorganic Chemistry, 2017, 56, 13029-13034.	4.0	7
41	Probing substrate binding to the metal binding sites in metallo-Î²-lactamase L1 during catalysis. MedChemComm, 2016, 7, 194-201.	3.4	6
42	An integrated biophysical approach to discovering mechanisms of NDM-1 inhibition for several thiol-containing drugs. Journal of Biological Inorganic Chemistry, 2020, 25, 717-727.	2.6	6
43	The Original CoII Heteroscorpionates Revisited: On the EPR of Pseudotetrahedral CoII. European Journal of Inorganic Chemistry, 2016, 2016, 2641-2647.	2.0	5
44	Trispyrazolylborate Complexes: An Advanced Synthesis Experiment Using Paramagnetic NMR, Variable-Temperature NMR, and EPR Spectroscopies. Journal of Chemical Education, 2017, 94, 1960-1964.	2.3	5
45	Tris-(2-pyridylmethyl)amine-ligated Cu(<scp>ii</scp>) 1,3-diketonate complexes: anaerobic retro-Claisen and dehalogenation reactivity of 2-chloro-1,3-diketonate derivatives. Dalton Transactions, 2021, 50, 1712-1720.	3.3	5
46	Spectroscopic and biochemical characterization of metallo-Î²-lactamase IMP-1 with dicarboxylic, sulfonyl, and thiol inhibitors. Bioorganic and Medicinal Chemistry, 2021, 40, 116183.	3.0	5
47	Cyanoscorpionate Ligands: Agostic Interactions in a Series of Metal Complexes Containing the Tris(4â€²cyanoâ€3â€phenylpyrazolyl)borate and Bis(4â€²cyanoâ€3â€phenylpyrazolyl)borate Ligands. European Journal of Inorganic Chemistry, 2016, 2016, 2543-2551.	2.0	4
48	Biochemical characterization and zinc binding group (ZBGs) inhibition studies on the catalytic domain of MMP7 (cdMMP7). Journal of Inorganic Biochemistry, 2016, 165, 7-17.	3.5	4
49	Paramagnetic Resonance of High-Spin Co(II) in Biologically-Relevant Environments: Models to Metalloproteins. Biological Magnetic Resonance, 2017, , 33-54.	0.4	3
50	Substituent Effects on the Coordination Chemistry of Metal-Binding Pharmacophores. Inorganic Chemistry, 2017, 56, 11721-11728.	4.0	2
51	Biochemical and spectroscopic characterization of the catalytic domain of MMP16 (cdMMP16). Journal of Biological Inorganic Chemistry, 2016, 21, 523-535.	2.6	1
52	Co(II) is not oxidized during turnover in the copper amine oxidase from Hansenula polymorpha. Journal of Biological Inorganic Chemistry, 2019, 24, 31-37.	2.6	1
53	Fluorine Labeling of ortho-Phenylenes to Facilitate Conformational Analysis. Journal of Organic Chemistry, 2021, 86, 15085-15095.	3.2	1
54	Geometry of Zn(II) complexes with dissolved organic matter: X-ray studies at variable pH. Toxicological and Environmental Chemistry, 2013, 95, 38-44.	1.2	0

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55	New Delhi Metalloâ€Betaâ€Lactamase Variants NDMâ€4 and NDMâ€12 from E. coli Clinical Isolates Exhibit Increased Activity and Stability. FASEB Journal, 2017, 31, 777.21.	0.5	0