

# David L Tierney

## List of Publications by Year in descending order

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55  
papers

1,691  
citations

279701

23  
h-index

289141

40  
g-index

56  
all docs

56  
docs citations

56  
times ranked

1832  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tris-(2-pyridylmethyl)amine-ligated Cu( $\lambda^2$ ) 1,3-diketonate complexes: anaerobic retro-Claisen and dehalogenation reactivity of 2-chloro-1,3-diketonate derivatives. Dalton Transactions, 2021, 50, 1712-1720.	1.6	5
2	Spectroscopic and biochemical characterization of metallo- $\lambda^2$ -lactamase IMP-1 with dicarboxylic, sulfonyl, and thiol inhibitors. Bioorganic and Medicinal Chemistry, 2021, 40, 116183.	1.4	5
3	Fluorine Labeling of <i>ortho</i> -Phenylenes to Facilitate Conformational Analysis. Journal of Organic Chemistry, 2021, 86, 15085-15095.	1.7	1
4	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.	1.1	6
5	Csp <sup>3</sup> â€“Csp <sup>3</sup> Bond-Forming Reductive Elimination from Well-Defined Copper(III) Complexes. Journal of the American Chemical Society, 2019, 141, 3153-3159.	6.6	98
6	Investigation of Dipicolinic Acid Isosteres for the Inhibition of Metallo- $\lambda^2$ -Lactamases. ChemMedChem, 2019, 14, 1271-1282.	1.6	20
7	Magnetization Slow Dynamics in Ferrocenium Complexes. Chemistry - A European Journal, 2019, 25, 10625-10632.	1.7	20
8	A Single Salt Bridge in VIM-20 Increases Protein Stability and Antibiotic Resistance under Low-Zinc Conditions. MBio, 2019, 10, .	1.8	16
9	Co(II) is not oxidized during turnover in the copper amine oxidase from Hansenula polymorpha. Journal of Biological Inorganic Chemistry, 2019, 24, 31-37.	1.1	1
10	Probing the Interaction of Aspergillomarasmine A with Metallo- $\lambda^2$ -lactamases NDM-1, VIM-2, and IMP-7. ACS Infectious Diseases, 2018, 4, 135-145.	1.8	48
11	Second-Sphere Effects in Dinuclear Fe <sup>III</sup> Zn <sup>II</sup> Hydrolase Biomimetics: Tuning Binding and Reactivity Properties. Inorganic Chemistry, 2018, 57, 187-203.	1.9	29
12	A Noncanonical Metal Center Drives the Activity of the <i>Sediminispirochaeta smaragdinae</i> Metallo- $\lambda^2$ -lactamase SPS-1. Biochemistry, 2018, 57, 5218-5229.	1.2	11
13	Copper-Mediated Trifluoromethylation of Benzylic Csp <sup>3</sup> -H Bonds. Chemistry - A European Journal, 2018, 24, 11559-11563.	1.7	76
14	Evolution of New Delhi metallo- $\lambda^2$ -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.	1.6	79
15	Paramagnetic Resonance of Cobalt(II) Trispyrazolylmethanes and Counterion Association. Inorganic Chemistry, 2017, 56, 618-626.	1.9	8
16	Clinical Variants of New Delhi Metallo- $\lambda^2$ -Lactamase Are Evolving To Overcome Zinc Scarcity. ACS Infectious Diseases, 2017, 3, 927-940.	1.8	49
17	Photochemistry and Anion-Controlled Structure of Fe(III) Complexes with an $\lambda^1$ -Hydroxy Acid-Containing Tripodal Amine Chelate. Inorganic Chemistry, 2017, 56, 13029-13034.	1.9	7
18	Trispyrazolylborate Complexes: An Advanced Synthesis Experiment Using Paramagnetic NMR, Variable-Temperature NMR, and EPR Spectroscopies. Journal of Chemical Education, 2017, 94, 1960-1964.	1.1	5

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19	Combining Novel Visualizations and Synthesis To Explore Structure–Property Relationships Using Cobalt Complexes. <i>Journal of Chemical Education</i> , 2017, 94, 1952-1959.	1.1	8
20	Substituent Effects on the Coordination Chemistry of Metal-Binding Pharmacophores. <i>Inorganic Chemistry</i> , 2017, 56, 11721-11728.	1.9	2
21	A general reaction mechanism for carbapenem hydrolysis by mononuclear and binuclear metallo- $\beta$ -lactamases. <i>Nature Communications</i> , 2017, 8, 538.	5.8	98
22	Dipicolinic Acid Derivatives as Inhibitors of New Delhi Metallo- $\beta$ -lactamase-1. <i>Journal of Medicinal Chemistry</i> , 2017, 60, 7267-7283.	2.9	120
23	Paramagnetic Resonance of High-Spin Co(II) in Biologically-Relevant Environments: Models to Metalloproteins. <i>Biological Magnetic Resonance</i> , 2017, , 33-54.	0.4	3
24	New Delhi Metallo- $\beta$ -Lactamase Variants NDM-4 and NDM-12 from E. coli Clinical Isolates Exhibit Increased Activity and Stability. <i>FASEB Journal</i> , 2017, 31, 777.21.	0.2	0
25	Anion Effects in Oxidative Aliphatic Carbon–Carbon Bond Cleavage Reactions of Cu(II) Chlorodiketonate Complexes. <i>Inorganic Chemistry</i> , 2016, 55, 6916-6928.	1.9	7
26	The Original Coll Heteroscorpionate Revisited: On the EPR of Pseudotetrahedral Coll. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 2641-2647.	1.0	5
27	Cyanoscorpionate Ligands: Agostic Interactions in a Series of Metal Complexes Containing the Tris(4-cyano-3-phenylpyrazolyl)borate and Bis(4-cyano-3-phenylpyrazolyl)borate Ligands. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 2543-2551.	1.0	4
28	Biochemical characterization and zinc binding group (ZBGs) inhibition studies on the catalytic domain of MMP7 (cdMMP7). <i>Journal of Inorganic Biochemistry</i> , 2016, 165, 7-17.	1.5	4
29	AIM-1: An Antibiotic-Degrading Metallohydrolase That Displays Mechanistic Flexibility. <i>Chemistry - A European Journal</i> , 2016, 22, 17704-17714.	1.7	28
30	Biochemical and spectroscopic characterization of the catalytic domain of MMP16 (cdMMP16). <i>Journal of Biological Inorganic Chemistry</i> , 2016, 21, 523-535.	1.1	1
31	Probing substrate binding to the metal binding sites in metallo- $\beta$ -lactamase L1 during catalysis. <i>MedChemComm</i> , 2016, 7, 194-201.	3.5	6
32	Investigating the position of the hairpin loop in New Delhi metallo- $\beta$ -lactamase, NDM-1, during catalysis and inhibitor binding. <i>Journal of Inorganic Biochemistry</i> , 2016, 156, 35-39.	1.5	26
33	Reduction of hexavalent chromium by the thermophilic methanogen <i>Methanothermobacter thermautotrophicus</i> . <i>Geochimica Et Cosmochimica Acta</i> , 2015, 148, 442-456.	1.6	89
34	Metal Ion Dependence of the Matrix Metalloproteinase-1 Mechanism. <i>Biochemistry</i> , 2015, 54, 3631-3639.	1.2	11
35	Chiral Bimetallic Catalysts Derived from Chiral Metal Phosphates: Enantioselective Three-Component Asymmetric Aza-Diels–Alder Reactions of Cyclic Ketones. <i>Journal of Organic Chemistry</i> , 2015, 80, 7984-7993.	1.7	20
36	Biochemical, Mechanistic, and Spectroscopic Characterization of Metallo- $\beta$ -lactamase VIM-2. <i>Biochemistry</i> , 2014, 53, 7321-7331.	1.2	57

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37	Spectroscopic and Mechanistic Studies of Heterodimetallic Forms of Metallo- $\beta$ -lactamase NDM-1. <i>Journal of the American Chemical Society</i> , 2014, 136, 7273-7285.	6.6	60
38	X-Ray Absorption Spectroscopy of Dinuclear Metallohydrolases. <i>Biophysical Journal</i> , 2014, 107, 1263-1272.	0.2	17
39	“Unconventional” Coordination Chemistry by Metal Chelating Fragments in a Metalloprotein Active Site. <i>Journal of the American Chemical Society</i> , 2014, 136, 5400-5406.	6.6	19
40	Halide-Promoted Dioxygenolysis of a Carbon-Carbon Bond by a Copper(II) Diketonate Complex. <i>Journal of the American Chemical Society</i> , 2014, 136, 7821-7824.	6.6	29
41	Geometry of Zn(II) complexes with dissolved organic matter: X-ray studies at variable pH. <i>Toxicological and Environmental Chemistry</i> , 2013, 95, 38-44.	0.6	0
42	Mechanistic and Spectroscopic Studies of Metallo- $\beta$ -lactamase NDM-1. <i>Biochemistry</i> , 2012, 51, 3839-3847.	1.2	94
43	Jahn-Teller Dynamics in a Series of High-Symmetry Co(II) Chelates Determine Paramagnetic Relaxation Enhancements. <i>Journal of Physical Chemistry A</i> , 2012, 116, 10959-10972.	1.1	14
44	Photoinitiated Dioxygenase-Type Reactivity of Open-Shell 3d Divalent Metal Flavonolate Complexes. <i>European Journal of Inorganic Chemistry</i> , 2012, 2012, 4750-4757.	1.0	23
45	Structural and Kinetic Studies on Metallo- $\beta$ -lactamase IMP-1. <i>Biochemistry</i> , 2011, 50, 9125-9134.	1.2	42
46	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. <i>Journal of Chemical Education</i> , 2011, 88, 223-225.	1.1	7
47	Dual Mode EPR Studies of a Kramers ion: High-Spin Co(II) in 4-, 5- and 6-Coordination. <i>Applied Magnetic Resonance</i> , 2011, 40, 501-511.	0.6	19
48	Anisotropic Fermi Couplings Due to Large Unquenched Orbital Angular Momentum: Q-Band $^1\text{H}$ , $^{14}\text{N}$ , and $^{11}\text{B}$ ENDOR of Bis(trispyrazolylborate) Cobalt(II). <i>Journal of the American Chemical Society</i> , 2009, 131, 10421-10429.	6.6	26
49	Integrated Paramagnetic Resonance of High-Spin Co(II) in Axial Symmetry: Chemical Separation of Dipolar and Contact Electron-Nuclear Couplings. <i>Inorganic Chemistry</i> , 2008, 47, 6701-6710.	1.9	40
50	The Metallo- $\beta$ -lactamase GOB Is a Mono-Zn(II) Enzyme with a Novel Active Site. <i>Journal of Biological Chemistry</i> , 2007, 282, 18286-18293.	1.6	70
51	Model Complexes of Cobalt-Substituted Matrix Metalloproteinases: Tools for Inhibitor Design. <i>Inorganic Chemistry</i> , 2006, 45, 7306-7315.	1.9	52
52	Frequency-Switching Inversion-Recovery for Severely Hyperfine-Shifted NMR: Evidence of Asymmetric Electron Relaxation in High-Spin Co(II). <i>Inorganic Chemistry</i> , 2006, 45, 10016-10018.	1.9	10
53	Sequential Binding of Cobalt(II) to Metallo- $\beta$ -lactamase CcrA. <i>Biochemistry</i> , 2006, 45, 1313-1320.	1.2	41
54	ENDOR Studies of the Ligation and Structure of the Non-Heme Iron Site in ACC Oxidase. <i>Journal of the American Chemical Society</i> , 2005, 127, 7005-7013.	6.6	70

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55	X-ray Absorption Spectroscopy of the Iron Site in Escherichia coli Fe(III) Superoxide Dismutase. Biochemistry, 1995, 34, 1661-1668.	1.2	85