

# Gerhard Schenk

## List of Publications by Year in descending order

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192  
papers

7,387  
citations

41258

49  
h-index

79541

73  
g-index

208  
all docs

208  
docs citations

208  
times ranked

5692  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Catalytic Mechanisms of Binuclear Metallohydrolases. <i>Chemical Reviews</i> , 2006, 106, 3338-3363.	23.0	395
2	Properties and functions of the thiamin diphosphate dependent enzyme transketolase. <i>International Journal of Biochemistry and Cell Biology</i> , 1998, 30, 1297-1318.	1.2	218
3	Structure, function, and regulation of tartrate-resistant acid phosphatase. <i>Bone</i> , 2000, 27, 575-584.	1.4	193
4	Purple acid phosphatase: A journey into the function and mechanism of a colorful enzyme. <i>Coordination Chemistry Reviews</i> , 2013, 257, 473-482.	9.5	166
5	Binuclear Metal Centers in Plant Purple Acid Phosphatases: Fe <sup>II</sup> -Mn in Sweet Potato and Fe <sup>II</sup> -Zn in Soybean. <i>Archives of Biochemistry and Biophysics</i> , 1999, 370, 183-189.	1.4	161
6	Phosphate forms an unusual tripodal complex with the Fe-Mn center of sweet potato purple acid phosphatase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 273-278.	3.3	152
7	Identification of mammalian-like purple acid phosphatases in a wide range of plants. <i>Gene</i> , 2000, 250, 117-125.	1.0	141
8	Binuclear Metallohydrolases: Complex Mechanistic Strategies for a Simple Chemical Reaction. <i>Accounts of Chemical Research</i> , 2012, 45, 1593-1603.	7.6	129
9	An Unprecedented Fe <sup>III</sup> (1/4-OH)Zn <sup>II</sup> Complex that Mimics the Structural and Functional Properties of Purple Acid Phosphatases. <i>Journal of the American Chemical Society</i> , 2007, 129, 7486-7487.	6.6	124
10	Conformational sampling, catalysis, and evolution of the bacterial phosphotriesterase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 21631-21636.	3.3	110
11	Engineering highly functional thermostable proteins using ancestral sequence reconstruction. <i>Nature Catalysis</i> , 2018, 1, 878-888.	16.1	106
12	A Purple Acid Phosphatase from Sweet Potato Contains an Antiferromagnetically Coupled Binuclear Fe-Mn Center. <i>Journal of Biological Chemistry</i> , 2001, 276, 19084-19088.	1.6	103
13	Phosphate Ester Hydrolysis: Metal Complexes As Purple Acid Phosphatase and Phosphotriesterase Analogues. <i>European Journal of Inorganic Chemistry</i> , 2009, 2009, 2745-2758.	1.0	103
14	Comparison between the Geometric and Electronic Structures and Reactivities of {FeNO}7 and {FeO2}8 Complexes: A Density Functional Theory Study. <i>Journal of the American Chemical Society</i> , 2004, 126, 505-515.	6.6	93
15	Electronic Structure and Spectro-Structural Correlations of Fe <sup>III</sup> Zn <sup>II</sup> Biomimetics for Purple Acid Phosphatases: Relevance to DNA Cleavage and Cytotoxic Activity. <i>Inorganic Chemistry</i> , 2010, 49, 11421-11438.	1.9	84
16	Crystal structures of a purple acid phosphatase, representing different steps of this enzyme's catalytic cycle. <i>BMC Structural Biology</i> , 2008, 8, 6.	2.3	83
17	Organophosphate-degrading metallohydrolases: Structure and function of potent catalysts for applications in bioremediation. <i>Coordination Chemistry Reviews</i> , 2016, 317, 122-131.	9.5	83
18	Improving a Natural Enzyme Activity through Incorporation of Unnatural Amino Acids. <i>Journal of the American Chemical Society</i> , 2011, 133, 326-333.	6.6	77

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19	A new heterobinuclear FeIII CuII complex with a single terminal FeIII-O(phenolate) bond. Relevance to purple acid phosphatases and nucleases. <i>Journal of Biological Inorganic Chemistry</i> , 2005, 10, 319-332.	1.1	74
20	The organophosphate-degrading enzyme from <i>Agrobacterium radiobacter</i> displays mechanistic flexibility for catalysis. <i>Biochemical Journal</i> , 2010, 432, 565-573.	1.7	74
21	Dinuclear Zinc(II) Complexes with Hydrogen Bond Donors as Structural and Functional Phosphatase Models. <i>Inorganic Chemistry</i> , 2014, 53, 9036-9051.	1.9	74
22	Iron, copper, and manganese complexes with in vitro superoxide dismutase and/or catalase activities that keep <i>Saccharomyces cerevisiae</i> cells alive under severe oxidative stress. <i>Free Radical Biology and Medicine</i> , 2015, 80, 67-76.	1.3	73
23	Substrate-Promoted Formation of a Catalytically Competent Binuclear Center and Regulation of Reactivity in a Glycerophosphodiesterase from <i>Enterobacter aerogenes</i> . <i>Journal of the American Chemical Society</i> , 2008, 130, 14129-14138.	6.6	72
24	Metal-Ion Mutagenesis: Conversion of a Purple Acid Phosphatase from Sweet Potato to a Neutral Phosphatase with the Formation of an Unprecedented Catalytically Competent Mn <sup>II</sup> Active Site. <i>Journal of the American Chemical Society</i> , 2009, 131, 8173-8179.	6.6	70
25	The identification of new metallo- $\beta$ -lactamase inhibitor leads from fragment-based screening. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 3282-3285.	1.0	70
26	3-Mercapto-1,2,4-triazoles and N-acylated thiosemicarbazides as metallo- $\beta$ -lactamase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 380-386.	1.0	68
27	Spectroscopic and mechanistic studies of dinuclear metallohydrolases and their biomimetic complexes. <i>Dalton Transactions</i> , 2014, 43, 910-928.	1.6	67
28	Diesterase Activity and Substrate Binding in Purple Acid Phosphatases. <i>Journal of the American Chemical Society</i> , 2007, 129, 9550-9551.	6.6	66
29	Purple acid phosphatases from bacteria: similarities to mammalian and plant enzymes. <i>Gene</i> , 2000, 255, 419-424.	1.0	65
30	Human tartrate-resistant acid phosphatase becomes an effective ATPase upon proteolytic activation. <i>Archives of Biochemistry and Biophysics</i> , 2005, 439, 154-164.	1.4	65
31	Captopril analogues as metallo- $\beta$ -lactamase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 1589-1593.	1.0	64
32	Structural Flexibility Enhances the Reactivity of the Bioremediator Glycerophosphodiesterase by Fine-Tuning Its Mechanism of Hydrolysis. <i>Journal of the American Chemical Society</i> , 2009, 131, 11900-11908.	6.6	62
33	The Divalent Metal Ion in the Active Site of Uteroferrin Modulates Substrate Binding and Catalysis. <i>Journal of the American Chemical Society</i> , 2010, 132, 7049-7054.	6.6	62
34	Synthesis, Magnetic Properties, and Phosphoesterase Activity of Dinuclear Cobalt(II) Complexes. <i>Inorganic Chemistry</i> , 2013, 52, 2029-2043.	1.9	62
35	Progress toward inhibitors of metallo- $\beta$ -lactamases. <i>Future Medicinal Chemistry</i> , 2017, 9, 673-691.	1.1	62
36	Catalytic Mechanisms of Metallohydrolases Containing Two Metal Ions. <i>Advances in Protein Chemistry and Structural Biology</i> , 2014, 97, 49-81.	1.0	60

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37	Probing the role of the divalent metal ion in uteroferrin using metal ion replacement and a comparison to isostructural biomimetics. <i>Journal of Biological Inorganic Chemistry</i> , 2007, 13, 139-155.	1.1	59
38	The reaction mechanism of the Ga(III)Zn(II) derivative of uteroferrin and corresponding biomimetics. <i>Journal of Biological Inorganic Chemistry</i> , 2007, 12, 1207-1220.	1.1	57
39	Unsymmetrical Fe <sup>III</sup> Co <sup>II</sup> and Ga <sup>III</sup> Co <sup>II</sup> Complexes as Chemical Hydrolases: Biomimetic Models for Purple Acid Phosphatases (PAPs). <i>Inorganic Chemistry</i> , 2009, 48, 7905-7921.	1.9	57
40	Anomalous scattering analysis of <i>Agrobacterium radiobacter</i> phosphotriesterase: the prominent role of iron in the heterobinuclear active site. <i>Biochemical Journal</i> , 2006, 397, 501-508.	1.7	55
41	Phosphotyrosyl peptides and analogues as substrates and inhibitors of purple acid phosphatases. <i>Archives of Biochemistry and Biophysics</i> , 2004, 424, 154-162.	1.4	54
42	Unique spectral signatures of the nucleic acid dye acridine orange can distinguish cell death by apoptosis and necroptosis. <i>Journal of Cell Biology</i> , 2017, 216, 1163-1181.	2.3	54
43	Reactivity of MIIIMetal-Substituted Derivatives of Pig Purple Acid Phosphatase (Uteroferrin) with Phosphate. <i>Inorganic Chemistry</i> , 2002, 41, 5787-5794.	1.9	53
44	Electronic Structure Analysis of the Dinuclear Metal Center in the Bioremediator Glycerophosphodiesterase (GpdQ) from <i>Enterobacter aerogenes</i> . <i>Inorganic Chemistry</i> , 2010, 49, 2727-2734.	1.9	53
45	Synthesis and kinetic testing of new inhibitors for a metallo- $\beta$ -lactamase from <i>Klebsiella pneumonia</i> and <i>Pseudomonas aeruginosa</i> . <i>European Journal of Medicinal Chemistry</i> , 2011, 46, 6075-6082.	2.6	53
46	Direct Electrochemistry of Porcine Purple Acid Phosphatase (Uteroferrin). <i>Biochemistry</i> , 2004, 43, 10387-10392.	1.2	52
47	Identification and molecular modeling of a novel, plant-like, human purple acid phosphatase. <i>Gene</i> , 2006, 377, 12-20.	1.0	52
48	Structural and spectroscopic studies of a model for catechol oxidase. <i>Journal of Biological Inorganic Chemistry</i> , 2008, 13, 499-510.	1.1	52
49	The role of Zn <sup>II</sup> -OR and Zn <sup>II</sup> -OH nucleophiles and the influence of para-substituents in the reactions of binuclear phosphatase mimetics. <i>Dalton Transactions</i> , 2012, 41, 1695-1708.	1.6	52
50	Heavy Water as a Probe of the Free Radical Nature and Electrical Conductivity of Melanin. <i>Journal of Physical Chemistry B</i> , 2015, 119, 14994-15000.	1.2	52
51	Electronic and geometric structures of the organophosphate-degrading enzyme from <i>Agrobacterium radiobacter</i> (OpdA). <i>Journal of Biological Inorganic Chemistry</i> , 2011, 16, 777-787.	1.1	51
52	Immobilization of the enzyme GpdQ on magnetite nanoparticles for organophosphate pesticide bioremediation. <i>Journal of Inorganic Biochemistry</i> , 2014, 131, 1-7.	1.5	51
53	Comparative investigation of the reaction mechanisms of the organophosphate-degrading phosphotriesterases from <i>Agrobacterium radiobacter</i> (OpdA) and <i>Pseudomonas diminuta</i> (OPH). <i>Journal of Biological Inorganic Chemistry</i> , 2014, 19, 1263-1275.	1.1	51
54	Monoesterase Activity of a Purple Acid Phosphatase Mimic with a Cyclam Platform. <i>Chemistry - A European Journal</i> , 2012, 18, 1700-1710.	1.7	50

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55	Spectroscopic Characterization of Soybean Lipoxygenase-1 Mutants: the Role of Second Coordination Sphere Residues in the Regulation of Enzyme Activity. <i>Biochemistry</i> , 2003, 42, 7294-7302.	1.2	49
56	Polynuclear zinc(II) complexes of thiosemicarbazone: Synthesis, X-ray structure and biological evaluation. <i>Journal of Inorganic Biochemistry</i> , 2020, 203, 110908.	1.5	49
57	Molecular Evolutionary Analysis of the Thiamine-Diphosphate-Dependent Enzyme, Transketolase. <i>Journal of Molecular Evolution</i> , 1997, 44, 552-572.	0.8	48
58	Rapid-Freeze-Quench Magnetic Circular Dichroism of Intermediate X in Ribonucleotide Reductase: A New Structural Insight. <i>Journal of the American Chemical Society</i> , 2003, 125, 11200-11201.	6.6	47
59	Synthesis and Kinetic Testing of Tetrahydropyrimidine-2-thione and Pyrrole Derivatives as Inhibitors of the Metallo- $\beta$ -lactamase from <i>Klebsiella pneumoniae</i> and <i>Pseudomonas aeruginosa</i> . <i>Chemical Biology and Drug Design</i> , 2012, 80, 500-515.	1.5	47
60	The Role of His113 and His114 in Pyruvate Decarboxylase from <i>Zymomonas Mobilis</i> . <i>FEBS Journal</i> , 1997, 248, 63-71.	0.2	46
61	Spectroscopic Characterization of the Active Fe <sup>III</sup> and Fe <sup>III</sup> Fe <sup>II</sup> Forms of a Purple Acid Phosphatase Model System. <i>Inorganic Chemistry</i> , 2012, 51, 12195-12209.	1.9	45
62	The applications of binuclear metallohydrolases in medicine: Recent advances in the design and development of novel drug leads for purple acid phosphatases, metallo- $\beta$ -lactamases and arginases. <i>European Journal of Medicinal Chemistry</i> , 2014, 76, 132-144.	2.6	44
63	Structure-activity relationship study and optimisation of 2-aminopyrrole-1-benzyl-4,5-diphenyl-1 H-pyrrole-3-carbonitrile as a broad spectrum metallo- $\beta$ -lactamase inhibitor. <i>European Journal of Medicinal Chemistry</i> , 2017, 137, 351-364.	2.6	44
64	Enhancement of antibiotic-activity through complexation with metal ions - Combined ITC, NMR, enzymatic and biological studies. <i>Journal of Inorganic Biochemistry</i> , 2017, 167, 134-141.	1.5	43
65	Processivity and enzymatic mechanism of a multifunctional family 5 endoglucanase from <i>Bacillus subtilis</i> BS-5 with potential applications in the saccharification of cellulosic substrates. <i>Biotechnology for Biofuels</i> , 2018, 11, 20.	6.2	43
66	Design, synthesis, and in vitro and biological evaluation of potent amino acid-derived thiol inhibitors of the metallo- $\beta$ -lactamase IMP-1. <i>European Journal of Medicinal Chemistry</i> , 2016, 114, 318-327.	2.6	39
67	Catalase vs Peroxidase Activity of a Manganese(II) Compound: Identification of a Mn(III) $\rightarrow$ ( $1/4$ -O) <sub>2</sub> Mn(IV) Reaction Intermediate by Electrospray Ionization Mass Spectrometry and Electron Paramagnetic Resonance Spectroscopy. <i>Inorganic Chemistry</i> , 2009, 48, 4569-4579.	1.9	38
68	An Approach to More Accurate Model Systems for Purple Acid Phosphatases (PAPs). <i>Inorganic Chemistry</i> , 2015, 54, 7249-7263.	1.9	38
69	Structures of fungal and plant acetoxyacid synthases. <i>Nature</i> , 2020, 586, 317-321.	13.7	37
70	Structural elements that modulate the substrate specificity of plant purple acid phosphatases: Avenues for improved phosphorus acquisition in crops. <i>Plant Science</i> , 2020, 294, 110445.	1.7	37
71	Spectroscopic and Catalytic Characterization of a Functional Fe <sup>III</sup> Fe <sup>II</sup> Biomimetic for the Active Site of Uteroferrin and Protein Cleavage. <i>Inorganic Chemistry</i> , 2012, 51, 2065-2078.	1.9	36
72	Phosphate ester cleavage promoted by a tetrameric iron(III) complex. <i>Journal of Biological Inorganic Chemistry</i> , 2011, 16, 25-32.	1.1	35

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73	Identification and characterization of an unusual metallo- $\beta$ -lactamase from <i>Serratia proteamaculans</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2013, 18, 855-863.	1.1	35
74	Promiscuity comes at a price: Catalytic versatility vs efficiency in different metal ion derivatives of the potential bioremediator GpdQ. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2013, 1834, 425-432.	1.1	35
75	Inhibition studies of purple acid phosphatases: implications for the catalytic mechanism. <i>Journal of the Brazilian Chemical Society</i> , 2006, 17, 1558-1565.	0.6	33
76	Cadmium(II) complexes of the glycerophosphodiester-degrading enzyme GpdQ and a biomimetic N,O ligand. <i>Journal of Biological Inorganic Chemistry</i> , 2008, 13, 1065-1072.	1.1	33
77	Bacterial and Plant Ketol-Acid Reductoisomerases Have Different Mechanisms of Induced Fit during the Catalytic Cycle. <i>Journal of Molecular Biology</i> , 2012, 424, 168-179.	2.0	33
78	Metallo- $\beta$ -Lactamases: A Major Threat to Human Health. <i>American Journal of Molecular Biology</i> , 2014, 04, 89-104.	0.1	33
79	Crystal structure of <i>Mycobacterium tuberculosis</i> ketolâ€acid reductoisomerase at 1.0 Å... resolution â€“ a potential target for antiâ€tuberculosis drug discovery. <i>FEBS Journal</i> , 2016, 283, 1184-1196.	2.2	33
80	Synthesis and characterization of the tetranuclear iron(III) complex of a new asymmetric multidentate ligand. A structural model for purple acid phosphatases. <i>Dalton Transactions</i> , 2007, , 5132.	1.6	31
81	A structural and catalytic model for zinc phosphoesterases. <i>Dalton Transactions</i> , 2008, , 6045.	1.6	31
82	Inhibition of purple acid phosphatase with $\beta$ -alkoxynaphthylmethylphosphonic acids. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 163-166.	1.0	31
83	Copper Ions and Coordination Complexes as Novel Carbapenem Adjuvants. <i>Antimicrobial Agents and Chemotherapy</i> , 2018, 62, .	1.4	31
84	Metal Ions Play an Essential Catalytic Role in the Mechanism of Ketolâ€Acid Reductoisomerase. <i>Chemistry - A European Journal</i> , 2016, 22, 7427-7436.	1.7	30
85	Ca <sup>II</sup> Binding Regulates and Dominates the Reactivity of a Transitionâ€Metalâ€Ionâ€Dependent Diesterase from <i>Mycobacterium tuberculosis</i> . <i>Chemistry - A European Journal</i> , 2016, 22, 999-1009.	1.7	29
86	Second-Sphere Effects in Dinuclear Fe <sup>III</sup> Zn <sup>II</sup> Hydrolase Biomimetics: Tuning Binding and Reactivity Properties. <i>Inorganic Chemistry</i> , 2018, 57, 187-203.	1.9	29
87	Identification of Purple Acid Phosphatase Inhibitors by Fragmentâ€Based Screening: Promising New Leads for Osteoporosis Therapeutics. <i>Chemical Biology and Drug Design</i> , 2012, 80, 665-674.	1.5	28
88	AIMâ€1: An Antibioticâ€Degrading Metallohydrolase That Displays Mechanistic Flexibility. <i>Chemistry - A European Journal</i> , 2016, 22, 17704-17714.	1.7	28
89	Kinetic and Spectroscopic Studies of N694C Lipoxygenase:â€% A Probe of the Substrate Activation Mechanism of a Nonheme Ferric Enzyme. <i>Journal of the American Chemical Society</i> , 2007, 129, 7531-7537.	6.6	27
90	Altering the substrate specificity of methyl parathion hydrolase with directed evolution. <i>Archives of Biochemistry and Biophysics</i> , 2015, 573, 59-68.	1.4	27

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91	Visualization of the Reaction Trajectory and Transition State in a Hydrolytic Reaction Catalyzed by a Metalloenzyme. <i>Chemistry - A European Journal</i> , 2017, 23, 4778-4781.	1.7	27
92	Expansin assisted bio-affinity immobilization of endoxylanase from <i>Bacillus subtilis</i> onto corncob residue: Characterization and efficient production of xylooligosaccharides. <i>Food Chemistry</i> , 2019, 282, 101-108.	4.2	27
93	Engineering proton conductivity in melanin using metal doping. <i>Journal of Materials Chemistry B</i> , 2020, 8, 8050-8060.	2.9	27
94	Proteomics Reveals Profound Metabolic Changes in the Alcohol Use Disorder Brain. <i>ACS Chemical Neuroscience</i> , 2019, 10, 2364-2373.	1.7	26
95	Enhancing the catalytic activity of a GH5 processive endoglucanase from <i>Bacillus subtilis</i> BS-5 by site-directed mutagenesis. <i>International Journal of Biological Macromolecules</i> , 2021, 168, 442-452.	3.6	26
96	Structural and Catalytic Characterization of a Heterovalent Mn(II)Mn(III) Complex That Mimics Purple Acid Phosphatases. <i>Inorganic Chemistry</i> , 2009, 48, 10036-10048.	1.9	25
97	Induction of apoptosis in leukemia cell lines by new copper(II) complexes containing naphthyl groups via interaction with death receptors. <i>Journal of Inorganic Biochemistry</i> , 2015, 153, 68-87.	1.5	25
98	Malonate-bound structure of the glycerophosphodiesterase from <i>Enterobacter aerogenes</i> (GpdQ) and characterization of the native Fe <sup>2+</sup> metal-ion preference. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2008, 64, 681-685.	0.7	24
99	Promiscuous metallo- $\beta$ -lactamases: MIM-1 and MIM-2 may play an essential role in quorum sensing networks. <i>Journal of Inorganic Biochemistry</i> , 2016, 162, 366-375.	1.5	24
100	Crystal Structures of <i>Staphylococcus aureus</i> Ketolactamase in Complex with Two Transition State Analogues that Have Biocidal Activity. <i>Chemistry - A European Journal</i> , 2017, 23, 18289-18295.	1.7	24
101	Metabolic strategies for the degradation of the neuromodulator agmatine in mammals. <i>Metabolism: Clinical and Experimental</i> , 2018, 81, 35-44.	1.5	24
102	The bioremediator glycerophosphodiesterase employs a non-processive mechanism for hydrolysis. <i>Journal of Inorganic Biochemistry</i> , 2010, 104, 211-213.	1.5	23
103	Cadmium(II) Complexes: Mimics of Organophosphate Pesticide Degrading Enzymes and Metallo- $\beta$ -lactamases. <i>Inorganic Chemistry</i> , 2012, 51, 7669-7681.	1.9	23
104	A New Mixed-Valence Mn(II)Mn(III) Compound With Catalase and Superoxide Dismutase Activities. <i>Frontiers in Chemistry</i> , 2018, 6, 491.	1.8	23
105	Synthesis, modelling and kinetic assays of potent inhibitors of purple acid phosphatase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 3092-3094.	1.0	22
106	Asymmetric zinc(ii) complexes as functional and structural models for phosphoesterases. <i>Dalton Transactions</i> , 2013, 42, 9574.	1.6	22
107	Enabling the Direct Enzymatic Dehydration of D-Glycerate to Pyruvate as the Key Step in Synthetic Enzyme Cascades Used in the Cell-Free Production of Fine Chemicals. <i>ACS Catalysis</i> , 2020, 10, 3110-3118.	5.5	22
108	Directed evolution combined with rational design increases activity of GpdQ toward a non-physiological substrate and alters the oligomeric structure of the enzyme. <i>Protein Engineering, Design and Selection</i> , 2011, 24, 861-872.	1.0	21

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109	Insights into an evolutionary strategy leading to antibiotic resistance. <i>Scientific Reports</i> , 2017, 7, 40357.	1.6	21
110	Functional analysis of the Mn <sup>2+</sup> requirement in the catalysis of ureohydrolases arginase and agmatinase - a historical perspective. <i>Journal of Inorganic Biochemistry</i> , 2020, 202, 110812.	1.5	21
111	Broad spectrum antibiotic-degrading metallo- $\beta$ -lactamases are phylogenetically diverse. <i>Protein and Cell</i> , 2020, 11, 613-617.	4.8	21
112	Highly efficient synthetic iron-dependent nucleases activate both intrinsic and extrinsic apoptotic death pathways in leukemia cancer cells. <i>Journal of Inorganic Biochemistry</i> , 2013, 128, 38-47.	1.5	19
113	Synthesis, characterization, antibacterial and antitumoral activities of mononuclear zinc complexes containing tridentate amine based ligands with N3 or N2O donor groups. <i>Inorganica Chimica Acta</i> , 2014, 416, 35-48.	1.2	19
114	Catalytic promiscuity: catecholase-like activity and hydrolytic DNA cleavage promoted by a mixed-valence Fe <sup>III</sup> Fe <sup>I</sup> complex. <i>Journal of the Brazilian Chemical Society</i> , 2010, 21, 1201-1212.	0.6	18
115	Mutation of outer-shell residues modulates metal ion co-ordination strength in a metalloenzyme. <i>Biochemical Journal</i> , 2010, 429, 313-321.	1.7	18
116	Using a Genetically Encoded Fluorescent Amino Acid as a Site-Specific Probe to Detect Binding of Low-Molecular-Weight Compounds. <i>Assay and Drug Development Technologies</i> , 2011, 9, 50-57.	0.6	18
117	Selective Coordination of Gallium(III), Zinc(II), and Copper(II) by an Asymmetric Dinucleating Ligand: A Model for Metallophosphatases. <i>Chemistry - A European Journal</i> , 2015, 21, 18269-18279.	1.7	18
118	The use of SWATH to analyse the dynamic changes of bacterial proteome of carbapenemase-producing <i>Escherichia coli</i> under antibiotic pressure. <i>Scientific Reports</i> , 2018, 8, 3871.	1.6	18
119	Effect of Chemically Distinct Substrates on the Mechanism and Reactivity of a Highly Promiscuous Metallohydrolase. <i>ACS Catalysis</i> , 2020, 10, 3684-3696.	5.5	18
120	Unusual metallo- $\beta$ -lactamases may constitute a new subgroup in this family of enzymes. <i>American Journal of Molecular Biology</i> , 2014, 04, 11-15.	0.1	18
121	Crystallization and preliminary X-ray diffraction data for a purple acid phosphatase from sweet potato. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 1999, 55, 2051-2052.	2.5	17
122	X-Ray Absorption Spectroscopy of Dinuclear Metallohydrolases. <i>Biophysical Journal</i> , 2014, 107, 1263-1272.	0.2	17
123	$\beta$ -Lactam antibiotic-degrading enzymes from non-pathogenic marine organisms: a potential threat to human health. <i>Journal of Biological Inorganic Chemistry</i> , 2015, 20, 639-651.	1.1	17
124	Total Synthesis and Complete Stereostructure of a Marine Macrolide Glycoside, (â€²)â€²Lyngbyalosideâ€²...B. <i>Chemistry - A European Journal</i> , 2016, 22, 6815-6829.	1.7	17
125	Characterization of a highly efficient antibiotic-degrading metallo- $\beta$ -lactamase obtained from an uncultured member of a permafrost community. <i>Metallomics</i> , 2017, 9, 1157-1168.	1.0	17
126	Structural basis of resistance to herbicides that target acetohydroxyacid synthase. <i>Nature Communications</i> , 2022, 13, .	5.8	17



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127	Heterologous expression of human transketolase. <i>International Journal of Biochemistry and Cell Biology</i> , 1998, 30, 369-378.	1.2	16
128	Metallohydrolase biomimetics with catalytic and structural flexibility. <i>Dalton Transactions</i> , 2016, 45, 18510-18521.	1.6	16
129	The Binding Mode of an ADP Analogue to a Metallohydrolase Mimics the Likely Transition State. <i>ChemBioChem</i> , 2019, 20, 1536-1540.	1.3	16
130	Phosphate-bound structure of an organophosphate-degrading enzyme from <i>Agrobacterium radiobacter</i> . <i>Journal of Inorganic Biochemistry</i> , 2012, 106, 19-22.	1.5	15
131	Use of magnetic circular dichroism to study dinuclear metallohydrolases and the corresponding biomimetics. <i>European Biophysics Journal</i> , 2015, 44, 393-415.	1.2	15
132	Asymmetric mono- and dinuclear Ga III and Zn II complexes as models for purple acid phosphatases. <i>Journal of Inorganic Biochemistry</i> , 2016, 162, 343-355.	1.5	15
133	Purple acid phosphatase inhibitors as leads for osteoporosis chemotherapeutics. <i>European Journal of Medicinal Chemistry</i> , 2018, 157, 462-479.	2.6	15
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