Richard C Holz

List of Publications by Year
in descending order

94 papers	3,321 citations	126708 33 h-index	155451 55 g-index
94 all docs	94 docs citations	94 times ranked	3056 citing authors

#	Article	IF	Citations
1	Insight into the Maturation Process of the Nitrile Hydratase Active Site. Inorganic Chemistry, 2021, 60, 5432-5435.	1.9	2
2	Atomic-Resolution 1.3 Ã… Crystal Structure, Inhibition by Sulfate, and Molecular Dynamics of the Bacterial Enzyme DapE. Biochemistry, 2021, 60, 908-917.	1.2	6
3	Identification of an Intermediate Species along the Nitrile Hydratase Reaction Pathway by EPR Spectroscopy. Biochemistry, 2021, , .	1.2	1
4	Examination of the Catalytic Role of the Axial Cystine Ligand in the Co-Type Nitrile Hydratase from Pseudonocardia thermophila JCM 3095. Catalysts, 2021, 11, 1381.	1.6	1
5	Indoline-6-Sulfonamide Inhibitors of the Bacterial Enzyme DapE. Antibiotics, 2020, 9, 595.	1.5	9
6	The Fe-type nitrile hydratase from Rhodococcus equi TG328-2 forms an alpha-activator protein complex. Journal of Biological Inorganic Chemistry, 2020, 25, 903-911.	1.1	4
7	Structural basis for the hydrolytic dehalogenation of the fungicide chlorothalonil. Journal of Biological Chemistry, 2020, 295, 8668-8677.	1.6	4
8	Insights into the catalytic mechanism of a bacterial hydrolytic dehalogenase that degrades the fungicide chlorothalonil. Journal of Biological Chemistry, 2019, 294, 13411-13420.	1.6	3
9	Cellular maturation of an iron-type nitrile hydratase interrogated using EPR spectroscopy. Journal of Biological Inorganic Chemistry, 2019, 24, 1105-1113.	1.1	3
10	Structural Evidence of a Major Conformational Change Triggered by Substrate Binding in DapE Enzymes: Impact on the Catalytic Mechanism. Biochemistry, 2018, 57, 574-584.	1.2	16
11	Analyzing the function of the insert region found between the Î± and Î²-subunits in the eukaryotic nitrile hydratase from Monosiga brevicollis. Archives of Biochemistry and Biophysics, 2018, 657, 1-7.	1.4	2
12	Practical spectrophotometric assay for the dapE-encoded N-succinyl-L,L-diaminopimelic acid desuccinylase, a potential antibiotic target. PLoS ONE, 2018, 13, e0196010.	1.1	11
13	Multiple States of Nitrile Hydratase from <i>Rhodococcus equi</i> TG328-2: Structural and Mechanistic Insights from Electron Paramagnetic Resonance and Density Functional Theory Studies. Biochemistry, 2017, 56, 3068-3077.	1.2	9
14	The iron-type nitrile hydratase activator protein is a GTPase. Biochemical Journal, 2017, 474, 247-258.	1.7	15
15	A cobalt-containing eukaryotic nitrile hydratase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 107-112.	1.1	12
16	An analytical method for detecting toxic metal cations using cyclotriveratrylene derivative capped gold nanoparticles. Tetrahedron Letters, 2015, 56, 5419-5423.	0.7	7
17	Inhibition of the <i>dapE</i>-Encoded <i>N</i>-Succinyl-<scp>l</scp>,<scp>l</scp>-diaminopimelic Acid Desuccinylase from <i>Neisseria meningitidis</i> by <scp>l</scp>-Captopril. Biochemistry, 2015, 54, 4834-4844.	1.2	17
18	Analyzing the catalytic role of active site residues in the Fe-type nitrile hydratase from Comamonas testosteroni Ni1. Journal of Biological Inorganic Chemistry, 2015, 20, 885-894.	1.1	8

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19	Acrylamide production using encapsulated nitrile hydratase from Pseudonocardia thermophila in a solâ€“gel matrix. Journal of Molecular Catalysis B: Enzymatic, 2014, 100, 19-24.	1.8	20
20	Mono-N-acyl-2,6-diaminopimelic acid derivatives: Analysis by electromigration and spectroscopic methods and examination of enzyme inhibitory activity. Analytical Biochemistry, 2014, 467, 4-13.	1.1	6
21	The Active Site Sulfenic Acid Ligand in Nitrile Hydratases Can Function as a Nucleophile. Journal of the American Chemical Society, 2014, 136, 1186-1189.	6.6	54
22	The Dimerization Domain in DapE Enzymes Is required for Catalysis. PLoS ONE, 2014, 9, e93593.	1.1	17
23	Lysine biosynthesis in bacteria: a metallodesuccinylase as a potential antimicrobial target. Journal of Biological Inorganic Chemistry, 2013, 18, 155-163.	1.1	57
24	Identification of an Active Site-bound Nitrile Hydratase Intermediate through Single Turnover Stopped-flow Spectroscopy. Journal of Biological Chemistry, 2013, 288, 15532-15536.	1.6	16
25	Identification of a Histidine Metal Ligand in the argE-Encoded N-Acetyl-L-Ornithine Deacetylase from Escherichia coli. SpringerPlus, 2013, 2, 482.	1.2	6
26	Structural characterization of Zn(II)-, Co(II)-, and Mn(II)-loaded forms of the argE-encoded N-acetyl-L-ornithine deacetylase from Escherichia coli. Journal of Inorganic Biochemistry, 2012, 111, 157-163.	1.5	8
27	The Fe-type nitrile hydratase from Comamonas testosteroni Ni1 does not require an activator accessory protein for expression in Escherichia coli. Biochemical and Biophysical Research Communications, 2012, 424, 365-370.	1.0	19
28	Direct patterning of a cyclotriveratrylene derivative for directed self-assembly of C₆₀. Nanotechnology, 2011, 22, 275611.	1.3	8
29	Immobilization of motile bacterial cells via dip-pen nanolithography. Nanotechnology, 2010, 21, 235105.	1.3	10
30	Immobilization of the Aminopeptidase from <i>Aeromonas proteolytica</i> on Mg²⁺/Al³⁺ Layered Double Hydroxide Particles. ACS Applied Materials & Interfaces, 2010, 2, 2828-2832.	4.0	20
31	Direct Patterning of Silanized-Biomolecules on Semiconductor Surfaces. Langmuir, 2010, 26, 18300-18302.	1.6	3
32	Structural Basis for Catalysis by the Mono- and Dimetalated Forms of the dapE-Encoded N-succinyl-l,l-Diaminopimelic Acid Desuccinylase. Journal of Molecular Biology, 2010, 397, 617-626.	2.0	51
33	The dapE-encoded N-succinyl-l,l-diaminopimelic acid desuccinylase from Haemophilus influenzae contains two active-site histidine residues. Journal of Biological Inorganic Chemistry, 2009, 14, 1-10.	1.1	19
34	Analyzing the binding of Co(II)-specific inhibitors to the methionyl aminopeptidases from Escherichia coli and Pyrococcus furiosus. Journal of Biological Inorganic Chemistry, 2009, 14, 573-585.	1.1	9
35	Inhibitors of bacterial N-succinyl-l,l-diaminopimelic acid desuccinylase (DapE) and demonstration of in vitro antimicrobial activity. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 6350-6352.	1.0	39
36	Analyzing the catalytic role of Asp97 in the methionine aminopeptidase from <i>Escherichiaâ€ƒcoli</i>. FEBS Journal, 2008, 275, 6248-6259.	2.2	8

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37	Analyzing the Catalytic Mechanism of the Fe-Type Nitrile Hydratase from Comamonas testosteroni Ni1. Biochemistry, 2008, 47, 12057-12064.	1.2	18
38	Kinetic and Spectroscopic Analysis of the Catalytic Role of H79 in the Methionine Aminopeptidase from Escherichia coli. Biochemistry, 2008, 47, 11885-11893.	1.2	13
39	13C NMR Analysis of Biologically Produced Pyrene Residues byMycobacteriumsp. KMS in the Presence of Humic Acid. Environmental Science & Technology, 2007, 41, 242-249.	4.6	5
40	Unraveling the Catalytic Mechanism of Nitrile Hydratases. Journal of Biological Chemistry, 2007, 282, 7397-7404.	1.6	61
41	X-ray crystallographic characterization of the Co(II)-substituted Tris-bound form of the aminopeptidase from Aeromonas proteolytica. Journal of Inorganic Biochemistry, 2007, 101, 1099-1107.	1.5	16
42	Characterization of the catalytically active Mn(II)-loaded argE-encoded N-acetyl-l-ornithine deacetylase from Escherichia coli. Journal of Biological Inorganic Chemistry, 2007, 12, 603-613.	1.1	9
43	The Proteomics of N-terminal Methionine Cleavage. Molecular and Cellular Proteomics, 2006, 5, 2336-2349.	2.5	326
44	Attachment of Motile Bacterial Cells to Prealigned Holed Microarrays. Langmuir, 2006, 22, 11251-11254.	1.6	44
45	A new colorimetric assay for methionyl aminopeptidases: Examination of the binding of a new class of pseudopeptide analog inhibitors. Analytical Biochemistry, 2006, 357, 43-49.	1.1	13
46	Kinetic and spectroscopic characterization of the E134A- and E134D-altered dapE-encoded N-succinyl-l,l-diaminopimelic acid desuccinylase from Haemophilus influenzae. Journal of Biological Inorganic Chemistry, 2006, 11, 206-216.	1.1	27
47	The high-resolution structures of the neutral and the low pH crystals of aminopeptidase from Aeromonas proteolytica. Journal of Biological Inorganic Chemistry, 2006, 11, 398-408.	1.1	33
48	Kinetic and Spectroscopic Characterization of the D97 altered Methionine aminopeptidase from <i>Escherichia coli</i>. FASEB Journal, 2006, 20, LB53.	0.2	0
49	Characterization of the active site and insight into the binding mode of the anti-angiogenesis agent fumagillin to the manganese(II)-loaded methionyl aminopeptidase from Escherichia coli. Journal of Biological Inorganic Chemistry, 2005, 10, 41-50.	1.1	11
50	Methods for Fabricating Microarrays of Motile Bacteria. Small, 2005, 1, 445-451.	5.2	69
51	Spectroscopic and Thermodynamic Characterization of the E151D and E151A Altered Leucine Aminopeptidases fromAeromonasproteolyticaâ€. Inorganic Chemistry, 2005, 44, 8574-8580.	1.9	13
52	Both Nucleophile and Substrate Bind to the Catalytic Fe(II)-Center in the Type-II Methionyl Aminopeptidase fromPyrococcusfuriosus. Inorganic Chemistry, 2005, 44, 1160-1162.	1.9	21
53	Electrochemical attachment of motile bacterial cells to gold. Talanta, 2005, 67, 538-542.	2.9	9
54	argE-EncodedN-Acetyl-l-Ornithine Deacetylase fromEscherichiacoliContains a Dinuclear Metalloactive Site. Journal of the American Chemical Society, 2005, 127, 14100-14107.	6.6	21

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55	The Catalytic Role of Glutamate 151 in the Leucine Aminopeptidase from Aeromonas proteolytica. Journal of Biological Chemistry, 2004, 279, 31018-31025.	1.6	49
56	Function of the signal peptide and N- and C-terminal propeptides in the leucine aminopeptidase from Aeromonas proteolytica. Protein Expression and Purification, 2004, 37, 294-305.	0.6	20
57	Co-catalytic metallopeptidases as pharmaceutical targets. Current Opinion in Chemical Biology, 2003, 7, 197-206.	2.8	66
58	Substrate Specificity, Metal Binding Properties, and Spectroscopic Characterization of the DapE-EncodedN-Succinyl-l,l-Diaminopimelic Acid Desuccinylase fromHaemophilus influenzaeâ€. Biochemistry, 2003, 42, 10756-10763.	1.2	40
59	ThedapE-encodedN-Succinyl-l,l-Diaminopimelic Acid Desuccinylase fromHaemophilusinfluenzaeIs a Dinuclear Metallohydrolase. Journal of the American Chemical Society, 2003, 125, 14654-14655.	6.6	28
60	Kinetic and Spectroscopic Characterization of the H178A Methionyl Aminopeptidase fromEscherichia coliâ€. Biochemistry, 2003, 42, 6283-6292.	1.2	43
61	Structurally Distinct Active Sites in the Copper(II)-Substituted Aminopeptidases fromAeromonasproteolyticaandEscherichiacoli. Journal of the American Chemical Society, 2002, 124, 13025-13034.	6.6	34
62	The 1.20 Ã… Resolution Crystal Structure of the Aminopeptidase from Aeromonas proteolytica Complexed with Tris. Structure, 2002, 10, 1063-1072.	1.6	57
63	The aminopeptidase from Aeromonas proteolytica can function as an esterase. Journal of Biological Inorganic Chemistry, 2002, 7, 129-135.	1.1	20
64	The aminopeptidase from Aeromonas proteolytica: structure and mechanism of co-catalytic metal centers involved in peptide hydrolysis. Coordination Chemistry Reviews, 2002, 232, 5-26.	9.5	78
65	Inhibition of the Aminopeptidase fromAeromonas proteolyticabyl-Leucinephosphonic Acid. Spectroscopic and Crystallographic Characterization of the Transition State of Peptide Hydrolysisâ€. Biochemistry, 2001, 40, 7035-7046.	1.2	76
66	Inhibition of the aminopeptidase from Aeromonas proteolytica by l-leucinethiol: kinetic and spectroscopic characterization of a slow, tight-binding inhibitorâ€"enzyme complex. Journal of Inorganic Biochemistry, 2000, 78, 43-54.	1.5	25
67	Divalent Metal Binding Properties of the Methionyl Aminopeptidase from Escherichia coli. Biochemistry, 2000, 39, 3817-3826.	1.2	110
68	The Methionyl Aminopeptidase fromEscherichia coliCan Function as an Iron(II) Enzymeâ€. Biochemistry, 1999, 38, 11079-11085.	1.2	152
69	Inhibition of the Aminopeptidase fromAeromonas proteolyticaby Aliphatic Alcohols. Characterization of the Hydrophobic Substrate Recognition Siteâ€. Biochemistry, 1999, 38, 11433-11439.	1.2	28
70	Slow-Binding Inhibition of the Aminopeptidase fromAeromonasproteolyticaby Peptide Thiols: Synthesis and Spectroscopic Characterizationâ€. Biochemistry, 1999, 38, 15587-15596.	1.2	30
71	Proton NMR Spectroscopy as a Probe of Dinuclear Copper(II) Active Sites in Metalloproteins. Characterization of the Hyperactive Copper(II)-Substituted Aminopeptidase fromAeromonas proteolytica. Journal of the American Chemical Society, 1998, 120, 6329-6335.	6.6	34
72	Synthesis, Molecular Structure, and Reactivity of Dinuclear Copper(II) Complexes with Carboxylate-Rich Coordination Environments. Inorganic Chemistry, 1998, 37, 1219-1225.	1.9	45

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73	Spectroscopically Distinct Cobalt(II) Sites in Heterodimetallic Forms of the Aminopeptidase fromAeromonas proteolytica:Â Characterization of Substrate Bindingâ€. Biochemistry, 1997, 36, 9837-9846.	1.2	75
74	EPR Studies on the Mono- and Dicobalt(II)-Substituted Forms of the Aminopeptidase fromAeromonas proteolytica. Insight into the Catalytic Mechanism of Dinuclear Hydrolases. Journal of the American Chemical Society, 1997, 119, 1923-1933.	6.6	93
75	Proton Nuclear Magnetic Resonance Investigation of the [2Fe-2S]1--Containing â€œRieske-Typeâ€•Protein fromXanthobacterStrain Py2â€. Biochemistry, 1997, 36, 14690-14696.	1.2	16
76	Mechanistic Studies on the Aminopeptidase from Aeromonas proteolytica:â€‰ A Two-Metal Ion Mechanism for Peptide Hydrolysis. Biochemistry, 1997, 36, 4278-4286.	1.2	98
77	Characterization of the Structural and Electronic Properties of Spin-Coupled Dinuclear Copper(II) Centers by Proton NMR Spectroscopy. Inorganic Chemistry, 1996, 35, 2878-2885.	1.9	62
78	Two-Dimensional1H NMR Studies on Octahedral Nickel(II) Complexes. Inorganic Chemistry, 1996, 35, 3808-3814.	1.9	26
79	Synthesis, molecular structure and reactivity of a new dicopper(II) benzimidazole complex with non-identical copper(II) sites. Polyhedron, 1996, 15, 2179-2185.	1.0	5
80	Spectroscopic and model studies on copper(II) substituted aminopeptidases. Journal of Inorganic Biochemistry, 1995, 59, 703.	1.5	0
81	Dinuclear Copper(II) Complexes with Carboxylate-Rich Coordination Environments. Models for Substituted Copper(II) Aminopeptidases. Inorganic Chemistry, 1994, 33, 6086-6092.	1.9	66
82	Proton NMR Spectroscopy as a Probe of Dinuclear Copper(II) Centers. Inorganic Chemistry, 1994, 33, 4609-4610.	1.9	41
83	One- and two-dimensional proton NMR studies of the active site of iron(II) superoxide dismutase from Escherichia coli. Inorganic Chemistry, 1994, 33, 83-87.	1.9	20
84	Spectroscopically distinct geometrical isomers in a single crystal. Characterization of the eight-coordinate adducts of tris(dipivaloylmethanato)lanthanide(III) with 2,9-dimethyl-1,10-phenanthroline. Inorganic Chemistry, 1993, 32, 5251-5256.	1.9	84
85	EXAFS studies of uteroferrin and its anion complexes. Journal of the American Chemical Society, 1993, 115, 4246-4255.	6.6	93
86	Spectroscopic and electrochemical properties of (.mu.-oxo)diiron(III) complexes related to diiron-oxo proteins. Structure of [Fe2O(TPA)2(MoO4)](ClO4)2. Inorganic Chemistry, 1993, 32, 5844-5850.	1.9	73
87	NOESY studies on the Fe(III)Co(II) active site of the purple acid phosphatase uteroferrin. Journal of the American Chemical Society, 1992, 114, 4434-4436.	6.6	53
88	EXAFS evidence for a "cysteine switch" in the activation of prostromelysin. Journal of the American Chemical Society, 1992, 114, 9611-9614.	6.6	28
89	Spectroscopic characterization of the europium(III) complexes of a series of N,N'-bis(carboxymethyl) macrocyclic ether bis(lactones). Inorganic Chemistry, 1991, 30, 3270-3275.	1.9	86
90	Spectroscopic and electrochemical studies of the diiron core of uteroferrin and its anion complexes.. Journal of Inorganic Biochemistry, 1991, 43, 137.	1.5	1

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91	Spectroscopic characterization of some rare earth complexes of triethylenetetraaminehexaacetic acid. Inorganica Chimica Acta, 1990, 171, 193-198.	1.2	27
92	Spectroscopic characterization of a series of europium(III) amino phosphonate complexes in solution. Inorganic Chemistry, 1990, 29, 5183-5189.	1.9	25
93	Laser-induced europium(III) luminescence and NMR spectroscopic characterization of macrocyclic diaza crown ether complexes containing carboxylate ligating groups. Inorganic Chemistry, 1990, 29, 2651-2658.	1.9	43
94	Structures and properties of dibridged (.mu.-oxo)diiron(III) complexes. Effects of the Fe-O-Fe angle. Inorganic Chemistry, 1990, 29, 4629-4637.	1.9	162