Carsten Krebs

List of Publications by Year
in descending order

197 papers	15,549 citations	10956 71 h-index	20900 115 g-index
202 all docs	202 docs citations	202 times ranked	8188 citing authors

#	Article	IF	Citations
1	Non-Heme Fe(IV)â€“Oxo Intermediates. Accounts of Chemical Research, 2007, 40, 484-492.	7.6	866
2	The First Direct Characterization of a High-Valent Iron Intermediate in the Reaction of an Î±-Ketoglutarate-Dependent Dioxygenase:â€‰ A High-Spin Fe(IV) Complex in Taurine/Î±-Ketoglutarate Dioxygenase (TauD) from Escherichia coli. Biochemistry, 2003, 42, 7497-7508.	1.2	654
3	IscU as a Scaffold for Ironâˆ'Sulfur Cluster Biosynthesis:Â Sequential Assembly of [2Fe-2S] and [4Fe-4S] Clusters in IscUâ€. Biochemistry, 2000, 39, 7856-7862.	1.2	419
4	Evidence for Hydrogen Abstraction from C1 of Taurine by the High-Spin Fe(IV) Intermediate Detected during Oxygen Activation by Taurine:Î±-Ketoglutarate Dioxygenase (TauD). Journal of the American Chemical Society, 2003, 125, 13008-13009.	6.6	373
5	Two interconverting Fe(IV) intermediates in aliphatic chlorination by the halogenase CytC3. Nature Chemical Biology, 2007, 3, 113-116.	3.9	305
6	Direct spectroscopic detection of a C-H-cleaving high-spin Fe(IV) complex in a prolyl-4-hydroxylase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 14738-14743.	3.3	289
7	EXAFS Spectroscopic Evidence for an Feâ•O Unit in the Fe(IV) Intermediate Observed during Oxygen Activation by Taurine:Î±-Ketoglutarate Dioxygenase. Journal of the American Chemical Society, 2004, 126, 8108-8109.	6.6	282
8	IscA, an Alternate Scaffold for Feâˆ'S Cluster Biosynthesis. Biochemistry, 2001, 40, 14069-14080.	1.2	233
9	A Radically Different Mechanism for <i>S</i> -Adenosylmethionineâ€“Dependent Methyltransferases. Science, 2011, 332, 604-607.	6.0	230
10	Formation of a Pterin Radical in the Reaction of the Heme Domain of Inducible Nitric Oxide Synthase with Oxygenâ€. Biochemistry, 1999, 38, 15689-15696.	1.2	229
11	Human calprotectin is an iron-sequestering host-defense protein. Nature Chemical Biology, 2015, 11, 765-771.	3.9	218
12	Substrate-Triggered Formation and Remarkable Stability of the Câˆ'H Bond-Cleaving Chloroferryl Intermediate in the Aliphatic Halogenase, SyrB2. Biochemistry, 2009, 48, 4331-4343.	1.2	212
13	Substrate positioning controls the partition between halogenation and hydroxylation in the aliphatic halogenase, SyrB2. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 17723-17728.	3.3	206
14	Elucidation of the Fe(iv)=O intermediate in the catalytic cycle of the halogenase SyrB2. Nature, 2013, 499, 320-323.	13.7	192
15	Spectroscopic and Computational Evaluation of the Structure of the High-Spin Fe(IV)-Oxo Intermediates in Taurine: Î±-Ketoglutarate Dioxygenase fromEscherichia coliand Its His99Ala Ligand Variant. Journal of the American Chemical Society, 2007, 129, 6168-6179.	6.6	191
16	A Manganese(IV)/Iron(III) Cofactor in Chlamydia trachomatis Ribonucleotide Reductase. Science, 2007, 316, 1188-1191.	6.0	186
17	A Short Fe-Fe Distance in Peroxodiferric Ferritin: Control of Fe Substrate Versus Cofactor Decay?. Science, 2000, 287, 122-125.	6.0	184
18	Diphthamide biosynthesis requires an organic radical generated by an ironâ€“sulphur enzyme. Nature, 2010, 465, 891-896.	13.7	180

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19	Mechanism of Taurine: Î±â€Ketoglutarate Dioxygenase (TauD) from Escherichia coli. European Journal of Inorganic Chemistry, 2005, 2005, 4245-4254.	1.0	178
20	Direct Spectroscopic and Kinetic Evidence for the Involvement of a Peroxodiferric Intermediate during the Ferroxidase Reaction in Fast Ferritin Mineralization. Biochemistry, 1998, 37, 9871-9876.	1.2	174
21	Direct Spectroscopic Evidence for a High-Spin Fe(IV) Intermediate in Tyrosine Hydroxylase. Journal of the American Chemical Society, 2007, 129, 11334-11335.	6.6	164
22	Kinetic Dissection of the Catalytic Mechanism of Taurine:Î±-Ketoglutarate Dioxygenase (TauD) from Escherichia coli. Biochemistry, 2005, 44, 8138-8147.	1.2	152
23	Drop-on-demand sample delivery for studying biocatalysts in action at X-ray free-electron lasers. Nature Methods, 2017, 14, 443-449.	9.0	150
24	The Ferroxidase Reaction of Ferritin Reveals a Diferric Î¼-1,2 Bridging Peroxide Intermediate in Common with Other O2-Activating Non-Heme Diiron Proteinsâ€. Biochemistry, 1999, 38, 5290-5295.	1.2	147
25	Engineering the Diiron Site ofEscherichia coliRibonucleotide Reductase Protein R2 to Accumulate an Intermediate Similar to Hperoxo, the Putative Peroxodiiron(III) Complex from the Methane Monooxygenase Catalytic Cycle. Journal of the American Chemical Society, 1998, 120, 1094-1095.	6.6	144
26	Spectroscopic Evidence for a High-Spin Br-Fe(IV)-Oxo Intermediate in the Î±-Ketoglutarate-Dependent Halogenase CytC3 from <i>Streptomyces</i>. Journal of the American Chemical Society, 2007, 129, 13408-13409.	6.6	140
27	Enzymatic Câ€"H activation by metalâ€"superoxo intermediates. Current Opinion in Chemical Biology, 2007, 11, 151-158.	2.8	140
28	Coordination of Adenosylmethionine to a Unique Iron Site of the [4Fe-4S] of Pyruvate Formate-Lyase Activating Enzyme:â€‰ A MÃ¶ssbauer Spectroscopic Study. Journal of the American Chemical Society, 2002, 124, 912-913.	6.6	139
29	Mechanism of Rapid Electron Transfer during Oxygen Activation in the R2 Subunit ofEscherichiacoliRibonucleotide Reductase. 1. Evidence for a Transient Tryptophan Radical. Journal of the American Chemical Society, 2000, 122, 12195-12206.	6.6	138
30	Detection of Formate, Rather than Carbon Monoxide, As the Stoichiometric Coproduct in Conversion of Fatty Aldehydes to Alkanes by a Cyanobacterial Aldehyde Decarbonylase. Journal of the American Chemical Society, 2011, 133, 3316-3319.	6.6	136
31	Reconstitution of ThiC in thiamine pyrimidine biosynthesis expands the radical SAM superfamily. Nature Chemical Biology, 2008, 4, 758-765.	3.9	134
32	A Role for Iron in an Ancient Carbonic Anhydrase. Journal of Biological Chemistry, 2004, 279, 6683-6687.	1.6	133
33	Escherichia coliLipoyl Synthase Binds Two Distinct [4Feâ ˆ'4S] Clusters per Polypeptideâ€. Biochemistry, 2004, 43, 11770-11781.	1.2	133
34	NifS-Mediated Assembly of [4Feâ ˆ'4S] Clusters in the N- and C-Terminal Domains of the NifU Scaffold Protein. Biochemistry, 2005, 44, 12955-12969.	1.2	131
35	Stalking intermediates in oxygen activation by iron enzymes: Motivation and method. Journal of Inorganic Biochemistry, 2006, 100, 586-605.	1.5	131
36	Evidence for Only Oxygenative Cleavage of Aldehydes to Alk(a/e)nes and Formate by Cyanobacterial Aldehyde Decarbonylases. Biochemistry, 2012, 51, 7908-7916.	1.2	130

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37	Rapid Freeze-Quench57Fe MÃ¶ssbauer Spectroscopy:Â Monitoring Changes of an Iron-Containing Active Site during a Biochemical Reaction. Inorganic Chemistry, 2005, 44, 742-757.	1.9	126
38	Mechanism of the C5 Stereoinversion Reaction in the Biosynthesis of Carbapenem Antibiotics. Science, 2014, 343, 1140-1144.	6.0	122
39	Conversion of Fatty Aldehydes to Alka(e)nes and Formate by a Cyanobacterial Aldehyde Decarbonylase: Cryptic Redox by an Unusual Dimetal Oxygenase. Journal of the American Chemical Society, 2011, 133, 6158-6161.	6.6	120
40	Direct nitration and azidation of aliphatic carbons by an iron-dependent halogenase. Nature Chemical Biology, 2014, 10, 209-215.	3.9	113
41	Evidence for C-H cleavage by an iron-superoxide complex in the glycol cleavage reaction catalyzed by myo-inositol oxygenase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 6130-6135.	3.3	111
42	In Vitro Characterization of AtsB, a Radical SAM Formylglycine-Generating Enzyme That Contains Three [4Fe-4S] Clusters. Biochemistry, 2008, 47, 7523-7538.	1.2	107
43	Substrate activation by iron superoxo intermediates. Current Opinion in Structural Biology, 2010, 20, 673-683.	2.6	107
44	MÃ¶ssbauer spectroscopy of Fe/S proteins. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 1395-1405.	1.9	102
45	The biosynthesis of methanobactin. Science, 2018, 359, 1411-1416.	6.0	101
46	Exchange and Double-Exchange Phenomena in Linear Homo- and Heterotrinuclear Nickel(II,III,IV) Complexes Containing Six Î¼2-Phenolato or Î¼2-Thiophenolato Bridging Ligands. Journal of the American Chemical Society, 1996, 118, 12376-12390.	6.6	100
47	Spectroscopic Evidence for the Two Câ€“H-Cleaving Intermediates of <i>Aspergillus nidulans</i> Isopenicillin <i>N</i> Synthase. Journal of the American Chemical Society, 2016, 138, 8862-8874.	6.6	99
48	RlmN and AtsB as Models for the Overproduction and Characterization of Radical SAM Proteins. Methods in Enzymology, 2012, 516, 125-152.	0.4	98
49	Two Distinct Mechanisms for Câ€“C Desaturation by Iron(II)- and 2-(Oxo)glutarate-Dependent Oxygenases: Importance of Î±-Heteroatom Assistance. Journal of the American Chemical Society, 2018, 140, 7116-7126.	6.6	98
50	Neelaredoxin, an Iron-binding Protein from the Syphilis Spirochete, Treponema pallidum, Is a Superoxide Reductase. Journal of Biological Chemistry, 2000, 275, 28439-28448.	1.6	97
51	Visualizing the Reaction Cycle in an Iron(II)- and 2-(Oxo)-glutarate-Dependent Hydroxylase. Journal of the American Chemical Society, 2017, 139, 13830-13836.	6.6	97
52	Characterization of the Cofactor Composition of Escherichia coli Biotin Synthase. Biochemistry, 2004, 43, 2007-2021.	1.2	96
53	Evidence for Basic Ferryls in Cytochromes P450. Journal of the American Chemical Society, 2006, 128, 11471-11474.	6.6	93
54	A catalytic di-heme <i>bis</i> -Fe(IV) intermediate, alternative to an Fe(IV)=O porphyrin radical. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8597-8600.	3.3	89

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55	Electronic Structure Analysis of the Oxygenâ€Activation Mechanism by Fe^{II}â€•and Î±â€Ketoglutarate (Î±KG)â€Dependent Dioxygenases. Chemistry - A European Journal, 2012, 18, 6555-6567.	1.7	89
56	Dioxygen Reactivity of Mononuclear Heme and Copper Components Yielding A High-Spin Hemeâ˜Peroxoâ˜Cu Complex. Journal of the American Chemical Society, 2001, 123, 6183-6184.	6.6	88
57	Formation of Fe(III)Fe(IV) Species from the Reaction between a Diiron(II) Complex and Dioxygen:â€‰ Relevance to Ribonucleotide Reductase Intermediate X. Journal of the American Chemical Society, 1999, 121, 9893-9894.	6.6	87
58	Conversion of 3Fe-4S to 4Fe-4S Clusters in Native Pyruvate Formate-Lyase Activating Enzyme:Â MÃ¶ssbauer Characterization and Implications for Mechanism. Journal of the American Chemical Society, 2000, 122, 12497-12506.	6.6	86
59	CD and MCD of CytC3 and Taurine Dioxygenase:â€‰ Role of the Facial Triad in Î±-KG-Dependent Oxygenases. Journal of the American Chemical Society, 2007, 129, 14224-14231.	6.6	86
60	Evidence for Two Ferryl Species in Chloroperoxidase Compound II. Journal of the American Chemical Society, 2006, 128, 6147-6153.	6.6	82
61	A Long-Lived, Substrate-Hydroxylating Peroxodiiron(III/III) Intermediate in the Amine Oxygenase, AurF, from <i>Streptomyces thioluteus</i>. Journal of the American Chemical Society, 2009, 131, 13608-13609.	6.6	81
62	Cyanobacterial alkane biosynthesis further expands the catalytic repertoire of the ferritin-like â€˜di-iron-carboxylateâ€™ proteins. Current Opinion in Chemical Biology, 2011, 15, 291-303.	2.8	81
63	A Manganese(IV)/Iron(IV) Intermediate in Assembly of the Manganese(IV)/Iron(III) Cofactor of <i>Chlamydia trachomatis</i> Ribonucleotide Reductase. Biochemistry, 2007, 46, 8709-8716.	1.2	78
64	Experimental Correlation of Substrate Position with Reaction Outcome in the Aliphatic Halogenase, SyrB2. Journal of the American Chemical Society, 2015, 137, 6912-6919.	6.6	78
65	Evidence for a High-Spin Fe(IV) Species in the Catalytic Cycle of a Bacterial Phenylalanine Hydroxylase. Biochemistry, 2011, 50, 1928-1933.	1.2	77
66	Spectroscopic and Electrochemical Characterization of the Ironâ€“Sulfur and Cobalamin Cofactors of TsrM, an Unusual Radical <i>S</i>-Adenosylmethionine Methylase. Journal of the American Chemical Society, 2016, 138, 3416-3426.	6.6	77
67	Characterization of RimO, a New Member of the Methylthiotransferase Subclass of the Radical SAM Superfamily. Biochemistry, 2009, 48, 10162-10174.	1.2	76
68	A Consensus Mechanism for Radical SAM-Dependent Dehydrogenation? BtrN Contains Two [4Fe-4S] Clusters. Biochemistry, 2010, 49, 3783-3785.	1.2	76
69	Evidence for the slow reaction of hypoxiaâ€inducible factor prolyl hydroxylaseâ€ƒ2 with oxygen. FEBS Journal, 2010, 277, 4089-4099.	2.2	75
70	Rational Reprogramming of the R2 Subunit ofEscherichia coliRibonucleotide Reductase into a Self-Hydroxylating Monooxygenase. Journal of the American Chemical Society, 2001, 123, 7017-7030.	6.6	73
71	myo-Inositol oxygenase: a radical new pathway for O₂and Câ€“H activation at a nonheme diiron cluster. Dalton Transactions, 2009, , 905-914.	1.6	73
72	Generation of a Mixed-Valent Fe(III)Fe(IV) Form of Intermediate Q in the Reaction Cycle of Soluble Methane Monooxygenase, an Analog of Intermediate X in Ribonucleotide Reductase R2 Assembly. Journal of the American Chemical Society, 1998, 120, 2190-2191.	6.6	72

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73	Stoichiometric Production of Hydrogen Peroxide and Parallel Formation of Ferric Multimers through Decay of the Diferricâˆ’Peroxo Complex, the First Detectable Intermediate in Ferritin Mineralizationâ€. Biochemistry, 2002, 41, 13435-13443.	1.2	72
74	Fe-S cofactors in the SARS-CoV-2 RNA-dependent RNA polymerase are potential antiviral targets. Science, 2021, 373, 236-241.	6.0	71
75	Mechanism of Rapid Electron Transfer during Oxygen Activation in the R2 Subunit ofEscherichiacoliRibonucleotide Reductase. 2. Evidence for and Consequences of Blocked Electron Transfer in the W48F Variant. Journal of the American Chemical Society, 2000, 122, 12207-12219.	6.6	70
76	Four-electron oxidation of <i>p</i> -hydroxylaminobenzoate to <i>p</i> -nitrobenzoate by a peroxodiferric complex in AurF from <i>Streptomyces thioluteus</i>. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15722-15727.	3.3	70
77	Evidence that the Fosfomycin-Producing Epoxidase, HppE, Is a Nonâ€"Heme-Iron Peroxidase. Science, 2013, 342, 991-995.	6.0	69
78	Mechanisms of 2-Oxoglutarate-Dependent Oxygenases: The Hydroxylation Paradigm and Beyond. 2-Oxoglutarate-Dependent Oxygenases, 2015, , 95-122.	0.8	69
79	Substrate-Triggered Addition of Dioxygen to the Diferrous Cofactor of Aldehyde-Deformylating Oxygenase to Form a Diferric-Peroxide Intermediate. Journal of the American Chemical Society, 2013, 135, 15801-15812.	6.6	68
80	Electronic Structure of the Ferryl Intermediate in the Î±-Ketoglutarate Dependent Non-Heme Iron Halogenase SyrB2: Contributions to H Atom Abstraction Reactivity. Journal of the American Chemical Society, 2016, 138, 5110-5122.	6.6	68
81	Valence-Delocalized Diiron(II,III) Cores Supported by Carboxylate-Only Bridging Ligands. Journal of the American Chemical Society, 2000, 122, 5000-5001.	6.6	67
82	Spectroscopic, Steady-State Kinetic, and Mechanistic Characterization of the Radical SAM Enzyme QueE, Which Catalyzes a Complex Cyclization Reaction in the Biosynthesis of 7-Deazapurines. Biochemistry, 2013, 52, 188-198.	1.2	67
83	Cryoreduction of the NO-Adduct of Taurine:Î±-Ketoglutarate Dioxygenase (TauD) Yields an Elusive {FeNO}⁸ Species. Journal of the American Chemical Society, 2010, 132, 4739-4751.	6.6	66
84	SufR Coordinates Two [4Fe-4S]2+, 1+ Clusters and Functions as a Transcriptional Repressor of the sufBCDS Operon and an Autoregulator of sufR in Cyanobacteria. Journal of Biological Chemistry, 2007, 282, 31909-31919.	1.6	65
85	Rapid Reduction of the Diferric-Peroxyhemiacetal Intermediate in Aldehyde-Deformylating Oxygenase by a Cyanobacterial Ferredoxin: Evidence for a Free-Radical Mechanism. Journal of the American Chemical Society, 2015, 137, 11695-11709.	6.6	61
86	Exchange Coupling in an Isostructural Series of Face-Sharing Bioctahedral Complexes [LMII(Î¼-X)3MIIL]BPh4(M = Mn, Fe, Co, Ni, Zn; X = Cl, Br; L = 1,4,7-Trimethyl-1,4,7-triazacyclononane). Inorganic Chemistry, 1997, 36, 2834-2843.	1.9	60
87	Cfr and RlmN Contain a Single [4Fe-4S] Cluster, which Directs Two Distinct Reactivities for <i>S</i>-Adenosylmethionine: Methyl Transfer by S_N2 Displacement and Radical Generation. Journal of the American Chemical Society, 2011, 133, 19586-19589.	6.6	60
88	The manganese(IV)/iron(III) cofactor of Chlamydia trachomatis ribonucleotide reductase: structure, assembly, radical initiation, and evolution. Current Opinion in Structural Biology, 2008, 18, 650-657.	2.6	59
89	Escherichia coliQuinolinate Synthetase Does Indeed Harbor a [4Fe-4S] Cluster. Journal of the American Chemical Society, 2005, 127, 7310-7311.	6.6	58
90	A Coupled Dinuclear Iron Cluster that Is Perturbed by Substrate Binding in myo-Inositol Oxygenase. Biochemistry, 2006, 45, 5393-5401.	1.2	58

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91	Functional Mimic of Dioxygen-Activating Centers in Non-Heme Diiron Enzymes:Â Mechanistic Implications of Paramagnetic Intermediates in the Reactions between Diiron(II) Complexes and Dioxygen. Journal of the American Chemical Society, 2002, 124, 3993-4007.	6.6	57
92	The Active Form of Chlamydia trachomatis Ribonucleotide Reductase R2 Protein Contains a Heterodinuclear Mn(IV)/Fe(III) Cluster with S = 1 Ground State. Journal of the American Chemical Society, 2007, 129, 7504-7505.	6.6	57
93	A Triangular Iron(III) Complex Potentially Relevant to Iron(III)â€Binding Sites in Ferreascidin. Chemistry - A European Journal, 1997, 3, 193-201.	1.7	55
94	Structural Analysis of the Mn(IV)/Fe(III) Cofactor of Chlamydia trachomatis Ribonucleotide Reductase by Extended X-ray Absorption Fine Structure Spectroscopy and Density Functional Theory Calculations. Journal of the American Chemical Society, 2008, 130, 15022-15027.	6.6	55
95	Function of the Diiron Cluster of <i>Escherichia coli</i> Class Ia Ribonucleotide Reductase in Proton-Coupled Electron Transfer. Journal of the American Chemical Society, 2013, 135, 8585-8593.	6.6	55
96	Unusual Synthetic Pathway for an {Fe(NO)₂}⁹ Dinitrosyl Iron Complex (DNIC) and Insight into DNIC Electronic Structure via Nuclear Resonance Vibrational Spectroscopy. Inorganic Chemistry, 2016, 55, 5485-5501.	1.9	55
97	Peroxide Activation for Electrophilic Reactivity by the Binuclear Non-heme Iron Enzyme AurF. Journal of the American Chemical Society, 2017, 139, 7062-7070.	6.6	55
98	Highly Variable Ï€-Bonding in the Interaction of Iron(II) Porphyrinates with Nitrite. Journal of the American Chemical Society, 2000, 122, 10795-10804.	6.6	54
99	YfaE, a Ferredoxin Involved in Diferric-Tyrosyl Radical Maintenance in <i>Escherichia coli</i> Ribonucleotide Reductase. Biochemistry, 2007, 46, 11577-11588.	1.2	54
100	Further Characterization of Cys-Type and Ser-Type Anaerobic Sulfatase Maturating Enzymes Suggests a Commonality in the Mechanism of Catalysis. Biochemistry, 2013, 52, 2874-2887.	1.2	54
101	The COMBREX Project: Design, Methodology, and Initial Results. PLoS Biology, 2013, 11, e1001638.	2.6	54
102	Ability of Tetrahydrobiopterin Analogues to Support Catalysis by Inducible Nitric Oxide Synthase:Â Formation of a Pterin Radical Is Required for Enzyme Activityâ€. Biochemistry, 2003, 42, 13287-13303.	1.2	53
103	Escherichia coli L-Serine Deaminase Requires a [4Fe-4S] Cluster in Catalysis. Journal of Biological Chemistry, 2004, 279, 32418-32425.	1.6	52
104	Oxygen Activation by a Mixed-Valent, Diiron(II/III) Cluster in the Glycol Cleavage Reaction Catalyzed by myo-Inositol Oxygenase. Biochemistry, 2006, 45, 5402-5412.	1.2	52
105	Formation and Function of the Manganese(IV)/Iron(III) Cofactor in <i>Chlamydia trachomatis</i> Ribonucleotide Reductase. Biochemistry, 2008, 47, 13736-13744.	1.2	52
106	Metal-free class Ie ribonucleotide reductase from pathogens initiates catalysis with a tyrosine-derived dihydroxyphenylalanine radical. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10022-10027.	3.3	49
107	A Paramagnetic Copper(III) Complex Containing an Octahedral CuIIIS6 Coordination Polyhedron. Angewandte Chemie - International Edition, 1999, 38, 359-361.	7.2	48
108	Structural Characterization of the Peroxodiiron(III) Intermediate Generated during Oxygen Activation by the W48A/D84E Variant of Ribonucleotide Reductase Protein R2 fromEscherichia coliâ€. Biochemistry, 2003, 42, 13269-13279.	1.2	48

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109	Organophosphonate-degrading PhnZ reveals an emerging family of HD domain mixed-valent diiron oxygenases. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 18874-18879.	3.3	48
110	Branched Activation- and Catalysis-Specific Pathways for Electron Relay to the Manganese/Iron Cofactor in Ribonucleotide Reductase from <i>Chlamydia trachomatis</i>. Biochemistry, 2008, 47, 8477-8484.	1.2	47
111	Evidence for a Catalytically and Kinetically Competent Enzymeâ€"Substrate Cross-Linked Intermediate in Catalysis by Lipoyl Synthase. Biochemistry, 2014, 53, 4557-4572.	1.2	47
112	Aromatic Câ€"F Hydroxylation by Nonheme Iron(IV)â€"Oxo Complexes: Structural, Spectroscopic, and Mechanistic Investigations. Journal of the American Chemical Society, 2016, 138, 12791-12802.	6.6	47
113	Ground Spin State Variation in Carboxylate-Bridged Tetranuclear [Fe2Mn2O2]8+ Cores and a Comparison with Their [Fe4O2]8+ and [Mn4O2]8+ Congeners. European Journal of Inorganic Chemistry, 2003, 2003, 541-555.	1.0	46
114	Identification of FX in the Heliobacterial Reaction Center as a [4Fe-4S] Cluster with an S = 3/2 Ground Spin State. Biochemistry, 2006, 45, 6756-6764.	1.2	45
115	Structural and spectroscopic analyses of the sporulation killing factor biosynthetic enzyme SkfB, a bacterial AdoMet radical sactisynthase. Journal of Biological Chemistry, 2018, 293, 17349-17361.	1.6	43
116	Evidence That the Î² Subunit of <i>Chlamydia trachomatis</i> Ribonucleotide Reductase Is Active with the Manganese Ion of Its Manganese(IV)/Iron(III) Cofactor in Site 1. Journal of the American Chemical Society, 2012, 134, 2520-2523.	6.6	42
117	Substrate-Triggered Formation of a Peroxo-Fe₂(III/III) Intermediate during Fatty Acid Decarboxylation by UndA. Journal of the American Chemical Society, 2019, 141, 14510-14514.	6.6	42
118	O₂-Evolving Chlorite Dismutase as a Tool for Studying O₂-Utilizing Enzymes. Biochemistry, 2012, 51, 1607-1616.	1.2	39
119	A 2.8 Ã… Feâ€"Fe Separation in the Fe₂^{III/IV} Intermediate, X, from <i>Escherichia coli</i> Ribonucleotide Reductase. Journal of the American Chemical Society, 2013, 135, 16758-16761.	6.6	39
120	Use of a Chemical Trigger for Electron Transfer to Characterize a Precursor to ClusterXin Assembly of the Iron-Radical Cofactor ofEscherichia coliRibonucleotide Reductaseâ€. Biochemistry, 2004, 43, 5953-5964.	1.2	38
121	Rapid and Quantitative Activation of Chlamydia trachomatis Ribonucleotide Reductase by Hydrogen Peroxide. Biochemistry, 2008, 47, 4477-4483.	1.2	38
122	Structural and Spectroscopic Characterization of a Highâ€Spin {FeNO} 6 Complex with an Iron(IV)â^'NO â^' Electronic Structure. Angewandte Chemie - International Edition, 2016, 55, 6685-6688.	7.2	38
123	Structural Basis for Superoxide Activation of <i>Flavobacterium johnsoniae</i> Class I Ribonucleotide Reductase and for Radical Initiation by Its Dimanganese Cofactor. Biochemistry, 2018, 57, 2679-2693.	1.2	38
124	Non-Heme Diiron Model Complexes Can Mediate Direct NO Reduction: Mechanistic Insight into Flavodiiron NO Reductases. Journal of the American Chemical Society, 2018, 140, 13429-13440.	6.6	38
125	AurF from <i>Streptomyces thioluteus</i> and a Possible New Family of Manganese/Iron Oxygenases. Biochemistry, 2007, 46, 10413-10418.	1.2	37
126	Biogenesis of Iron-Sulfur Clusters in Photosystem I. Journal of Biological Chemistry, 2008, 283, 28426-28435.	1.6	37

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127	Active Site Threonine Facilitates Proton Transfer during Dioxygen Activation at the Diiron Center of Toluene/o-Xylene Monooxygenase Hydroxylase. Journal of the American Chemical Society, 2010, 132, 13582-13585.	6.6	36
128	Structural Basis for Assembly of the Mn^{IV}/Fe^{III} Cofactor in the Class Ic Ribonucleotide Reductase from <i>Chlamydia trachomatis</i>. Biochemistry, 2013, 52, 6424-6436.	1.2	35
129	Efficient Delivery of Long-Chain Fatty Aldehydes from the <i>Nostoc punctiforme</i> Acylâ€"Acyl Carrier Protein Reductase to Its Cognate Aldehyde-Deformylating Oxygenase. Biochemistry, 2015, 54, 1006-1015.	1.2	35
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