

John D Lipscomb

List of Publications by Year in descending order

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159
papers

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162
times ranked

6127
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#	ARTICLE	IF	CITATIONS
1	Dioxygen Activation by Enzymes Containing Binuclear Non-Heme Iron Clusters. <i>Chemical Reviews</i> , 1996, 96, 2625-2658.	23.0	1,211
2	An Fe ₂ IVO ₂ Diamond Core Structure for the Key Intermediate Q of Methane Monooxygenase. <i>Science</i> , 1997, 275, 515-518.	6.0	583
3	Versatility of biological non-heme Fe(II) centers in oxygen activation reactions. <i>Nature Chemical Biology</i> , 2008, 4, 186-193.	3.9	551
4	Haloalkene oxidation by the soluble methane monooxygenase from <i>Methylosinus trichosporium</i> OB3b: mechanistic and environmental implications. <i>Biochemistry</i> , 1990, 29, 6419-6427.	1.2	420
5	Biochemistry of the Soluble Methane Monooxygenase. <i>Annual Review of Microbiology</i> , 1994, 48, 371-399.	2.9	393
6	Crystal Structures of Fe ²⁺ Dioxygenase Superoxo, Alkylperoxo, and Bound Product Intermediates. <i>Science</i> , 2007, 316, 453-457.	6.0	357
7	A transient intermediate of the methane monooxygenase catalytic cycle containing an FeIVFeIV cluster. <i>Journal of the American Chemical Society</i> , 1993, 115, 6450-6451.	6.6	337
8	Crystal structure of the hydroxylase component of methane monooxygenase from <i>Methylosinus trichosporium</i> OB3b. <i>Protein Science</i> , 1997, 6, 556-568.	3.1	265
9	Large Kinetic Isotope Effects in Methane Oxidation Catalyzed by Methane Monooxygenase: Evidence for C-H Bond Cleavage in a Reaction Cycle Intermediate. <i>Biochemistry</i> , 1996, 35, 10240-10247.	1.2	261
10	Structure of the key species in the enzymatic oxidation of methane to methanol. <i>Nature</i> , 2015, 518, 431-434.	13.7	241
11	Finding Intermediates in the O ₂ Activation Pathways of Non-Heme Iron Oxygenases. <i>Accounts of Chemical Research</i> , 2007, 40, 475-483.	7.6	229
12	The Roles of Putidaredoxin and P450cam in Methylene Hydroxylation. <i>Journal of Biological Chemistry</i> , 1972, 247, 5777-5784.	1.6	214
13	Electron paramagnetic resonance detectable states of cytochrome P-450cam. <i>Biochemistry</i> , 1980, 19, 3590-3599.	1.2	196
14	Structure of Protocatechuate 3,4-Dioxygenase from <i>Pseudomonas aeruginosa</i> at 2.15 Å... Resolution. <i>Journal of Molecular Biology</i> , 1994, 244, 586-608.	2.0	195
15	Oxygen Activation Catalyzed by Methane Monooxygenase Hydroxylase Component: Proton Delivery during the O-H Bond Cleavage Steps. <i>Biochemistry</i> , 1999, 38, 4423-4432.	1.2	186
16	Moessbauer, EPR, and ENDOR studies of the hydroxylase and reductase components of methane monooxygenase from <i>Methylosinus trichosporium</i> OB3b. <i>Journal of the American Chemical Society</i> , 1993, 115, 3688-3701.	6.6	185
17	Crystal Structures of Substrate and Substrate Analog Complexes of Protocatechuate 3,4-Dioxygenase: Endogenous Fe ³⁺ -Ligand Displacement in Response to Substrate Binding. <i>Biochemistry</i> , 1997, 36, 10052-10066.	1.2	174
18	Mechanism of extradiol aromatic ring-cleaving dioxygenases. <i>Current Opinion in Structural Biology</i> , 2008, 18, 644-649.	2.6	171

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19	X-ray absorption spectroscopic studies of the Fe(II) active site of catechol 2,3-dioxygenase. Implications for the extradiol cleavage mechanism. <i>Biochemistry</i> , 1995, 34, 6649-6659.	1.2	162
20	Crystallographic Comparison of Manganese- and Iron-Dependent Homoprotocatechuate 2,3-Dioxygenases. <i>Journal of Bacteriology</i> , 2004, 186, 1945-1958.	1.0	152
21	Superoxide anion production by the autoxidation of cytochrome P450cam. <i>Biochemical and Biophysical Research Communications</i> , 1974, 61, 290-296.	1.0	146
22	Integer-spin EPR studies of the fully reduced methane monooxygenase hydroxylase component. <i>Journal of the American Chemical Society</i> , 1990, 112, 5861-5865.	6.6	145
23	Single Turnover Chemistry and Regulation of O ₂ Activation by the Oxygenase Component of Naphthalene 1,2-Dioxygenase. <i>Journal of Biological Chemistry</i> , 2001, 276, 1945-1953.	1.6	143
24	Trapping and spectroscopic characterization of an Fe ^{III} -superoxo intermediate from a nonheme mononuclear iron-containing enzyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 16788-16793.	3.3	141
25	Kinetics and Activation Thermodynamics of Methane Monooxygenase Compound Q Formation and Reaction with Substrates. <i>Biochemistry</i> , 2000, 39, 13503-13515.	1.2	133
26	Soluble Methane Monooxygenase. <i>Annual Review of Biochemistry</i> , 2019, 88, 409-431.	5.0	124
27	Oxidation-reduction potentials of the methane monooxygenase hydroxylase component from <i>Methylosinus trichosporium</i> OB3b. <i>Biochemistry</i> , 1994, 33, 713-722.	1.2	119
28	Hydrogen Peroxide-coupled cis-Diol Formation Catalyzed by Naphthalene 1,2-Dioxygenase. <i>Journal of Biological Chemistry</i> , 2003, 278, 829-835.	1.6	117
29	A Role of the Putidaredoxin COOH-terminus in P-450cam (Cytochrome m) Hydroxylations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1974, 71, 3906-3910.	3.3	114
30	Role of the nonheme Fe(II) center in the biosynthesis of the plant hormone ethylene. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1999, 96, 7905-7909.	3.3	111
31	Swapping metals in Fe- and Mn-dependent dioxygenases: Evidence for oxygen activation without a change in metal redox state. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 7347-7352.	3.3	109
32	VTMH-MCD and DFT Studies of Thiolate Bonding to {FeNO} ₇ {FeO ₂ } ₈ Complexes of Isopenicillin N Synthase: A Substrate Determination of Oxidase versus Oxygenase Activity in Nonheme Fe Enzymes. <i>Journal of the American Chemical Society</i> , 2007, 129, 7427-7438.	6.6	105
33	Radical Intermediates in Monooxygenase Reactions of Rieske Dioxygenases. <i>Journal of the American Chemical Society</i> , 2007, 129, 3514-3515.	6.6	105
34	Thiolate ligation of the active site iron(II) of isopenicillin N synthase derives from substrate rather than endogenous cysteine: spectroscopic studies of site-specific Cys ^{fwdarw} . Ser mutated enzymes. <i>Biochemistry</i> , 1992, 31, 4602-4612.	1.2	104
35	Gating Effects of Component B on Oxygen Activation by the Methane Monooxygenase Hydroxylase Component. <i>Journal of Biological Chemistry</i> , 1995, 270, 24662-24665.	1.6	104
36	Substrate activation for O ₂ reactions by oxidized metal centers in biology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 18355-18362.	3.3	100

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37	High-Energy-Resolution Fluorescence-Detected X-ray Absorption of the Q Intermediate of Soluble Methane Monooxygenase. <i>Journal of the American Chemical Society</i> , 2017, 139, 18024-18033.	6.6	98
38	Spectroscopic studies of the coupled binuclear non-heme iron active site in the fully reduced hydroxylase component of methane monooxygenase: comparison to deoxy and deoxy-azide hemerythrin. <i>Journal of the American Chemical Society</i> , 1993, 115, 12409-12422.	6.6	96
39	Structures of Competitive Inhibitor Complexes of Protocatechuate 3,4-Dioxygenase: A Multiple Exogenous Ligand Binding Orientations within the Active Site. <i>Biochemistry</i> , 1997, 36, 10039-10051.	1.2	92
40	Variable-temperature variable-field magnetic circular dichroism studies of the iron(II) active site in metapyrocatechase: implications for the molecular mechanism of extradiol dioxygenases. <i>Journal of the American Chemical Society</i> , 1991, 113, 4053-4061.	6.6	90
41	Benzoate 1,2-Dioxygenase from <i>Pseudomonas putida</i> : A Single Turnover Kinetics and Regulation of a Two-Component Rieske Dioxygenase. <i>Biochemistry</i> , 2002, 41, 9611-9626.	1.2	90
42	Double-flow focused liquid injector for efficient serial femtosecond crystallography. <i>Scientific Reports</i> , 2017, 7, 44628.	1.6	90
43	[31] Methane monooxygenase from <i>Methylophilus trichosporium</i> OB3b. <i>Methods in Enzymology</i> , 1990, 188, 191-202.	0.4	89
44	Spectroscopic and Electronic Structure Studies of Protocatechuate 3,4-Dioxygenase: Nature of Tyrosinate-Fe(III) Bonds and Their Contribution to Reactivity. <i>Journal of the American Chemical Society</i> , 2002, 124, 602-614.	6.6	88
45	Hydrogen Peroxide Dependent cis-Dihydroxylation of Benzoate by Fully Oxidized Benzoate 1,2-Dioxygenase. <i>Biochemistry</i> , 2007, 46, 8004-8016.	1.2	88
46	Crystal Structure and Resonance Raman Studies of Protocatechuate 3,4-Dioxygenase Complexed with 3,4-Dihydroxyphenylacetate. <i>Biochemistry</i> , 1997, 36, 11504-11513.	1.2	86
47	Intermediate Q from Soluble Methane Monooxygenase Hydroxylates the Mechanistic Substrate Probe Norcarane: Evidence for a Stepwise Reaction. <i>Journal of the American Chemical Society</i> , 2001, 123, 11831-11837.	6.6	85
48	An EXAFS study of the interaction of substrate with the ferric active site of protocatechuate 3,4-dioxygenase. <i>Biochemistry</i> , 1990, 29, 10847-10854.	1.2	84
49	Methane Monooxygenase Component B Mutants Alter the Kinetics of Steps Throughout the Catalytic Cycle. <i>Biochemistry</i> , 2001, 40, 2220-2233.	1.2	83
50	High-Resolution Extended X-ray Absorption Fine Structure Analysis Provides Evidence for a Longer Fe-Fe Distance in the Q Intermediate of Methane Monooxygenase. <i>Journal of the American Chemical Society</i> , 2018, 140, 16807-16820.	6.6	82
51	Spectroscopic and Electronic Structure Study of the Enzyme-Substrate Complex of Intradiol Dioxygenases: Substrate Activation by a High-Spin Ferric Non-heme Iron Site. <i>Journal of the American Chemical Society</i> , 2007, 129, 1944-1958.	6.6	81
52	Solution Structure of Component B from Methane Monooxygenase Derived through Heteronuclear NMR and Molecular Modeling. <i>Biochemistry</i> , 1999, 38, 5799-5812.	1.2	79
53	A family of diiron monooxygenases catalyzing amino acid beta-hydroxylation in antibiotic biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 15391-15396.	3.3	79
54	Electron Paramagnetic Resonance Detection of Intermediates in the Enzymatic Cycle of an Extradiol Dioxygenase. <i>Journal of the American Chemical Society</i> , 2008, 130, 14465-14467.	6.6	77

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55	Ligand Field Circular Dichroism and Magnetic Circular Dichroism Studies of Component B and Substrate Binding to the Hydroxylase Component of Methane Monooxygenase. <i>Journal of the American Chemical Society</i> , 1997, 119, 387-395.	6.6	75
56	Aromatic Ring Cleavage by Homoprotocatechuate 2,3-Dioxygenase: A Role of His200 in the Kinetics of Interconversion of Reaction Cycle Intermediates. <i>Biochemistry</i> , 2005, 44, 7175-7188.	1.2	73
57	Mechanistic studies of 1-aminocyclopropane-1-carboxylic acid oxidase: single turnover reaction. <i>Journal of Biological Inorganic Chemistry</i> , 2004, 9, 171-182.	1.1	72
58	An Unusual Peroxo Intermediate of the Arylamine Oxygenase of the Chloramphenicol Biosynthetic Pathway. <i>Journal of the American Chemical Society</i> , 2015, 137, 1608-1617.	6.6	71
59	Roles of the Methane Monooxygenase Reductase Component in the Regulation of Catalysis. <i>Biochemistry</i> , 1997, 36, 5223-5233.	1.2	70
60	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
61	Homoprotocatechuate 2,3-Dioxygenase from <i>Brevibacterium fuscum</i> . <i>Journal of Biological Chemistry</i> , 1996, 271, 5524-5535.	1.6	69
62	A blue copper oxidase from <i>Nitrosomonas europaea</i> . <i>BBA - Proteins and Proteomics</i> , 1985, 827, 320-326.	2.1	67
63	The Axial Tyrosinate Fe ³⁺ Ligand in Protocatechuate 3,4-Dioxygenase Influences Substrate Binding and Product Release: Evidence for New Reaction Cycle Intermediates. <i>Biochemistry</i> , 1998, 37, 2131-2144.	1.2	67
64	A hyperactive cobalt-substituted extradiol-cleaving catechol dioxygenase. <i>Journal of Biological Inorganic Chemistry</i> , 2011, 16, 341-355.	1.1	65
65	Spectroscopic Studies of 1-Aminocyclopropane-1-carboxylic Acid Oxidase: Molecular Mechanism and CO ₂ Activation in the Biosynthesis of Ethylene. <i>Journal of the American Chemical Society</i> , 2002, 124, 4602-4609.	6.6	64
66	Two-pronged survival strategy for the major cystic fibrosis pathogen, <i>Pseudomonas aeruginosa</i> , lacking the capacity to degrade nitric oxide during anaerobic respiration. <i>EMBO Journal</i> , 2007, 26, 3662-3672.	3.5	63
67	Unmasking of Deuterium Kinetic Isotope Effects on the Methane Monooxygenase Compound Q Reaction by Site-Directed Mutagenesis of Component B. <i>Journal of the American Chemical Society</i> , 2001, 123, 10421-10422.	6.6	59
68	Substrate Binding to NO ⁺ Ferro ⁺ Naphthalene 1,2-Dioxygenase Studied by High-Resolution Q-Band Pulsed 2H-ENDOR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2003, 125, 7056-7066.	6.6	59
69	Structural and Molecular Characterization of Iron-sensing Hemerythrin-like Domain within F-box and Leucine-rich Repeat Protein 5 (FBXL5). <i>Journal of Biological Chemistry</i> , 2012, 287, 7357-7365.	1.6	59
70	Intermediate in the O-O Bond Cleavage Reaction of an Extradiol Dioxygenase. <i>Biochemistry</i> , 2008, 47, 11168-11170.	1.2	58
71	Cyanobacterial Aldehyde Deformylase Oxygenation of Aldehydes Yields <i>n</i> -1 Aldehydes and Alcohols in Addition to Alkanes. <i>ACS Catalysis</i> , 2013, 3, 2228-2238.	5.5	58
72	MMO: P450 in wolf's clothing?. <i>Journal of Biological Inorganic Chemistry</i> , 1998, 3, 331-336.	1.1	57

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73	Single-Turnover Kinetics of Homoprotocatechuate 2,3-Dioxygenase. <i>Biochemistry</i> , 2004, 43, 15141-15153.	1.2	54
74	Desaturation reactions catalyzed by soluble methane monooxygenase. <i>Journal of Biological Inorganic Chemistry</i> , 2001, 6, 717-725.	1.1	53
75	Probing the Mechanism of C-H Activation: Oxidation of Methylcubane by Soluble Methane Monooxygenase from <i>Methylosinus trichosporium</i> . <i>Biochemistry</i> , 1999, 38, 6178-6186.	1.2	51
76	Unprecedented (1/4-1,1-Peroxo)diferic Structure for the Ambiphilic Orange Peroxo Intermediate of the Nonheme N-Oxygenase CmlI. <i>Journal of the American Chemical Society</i> , 2017, 139, 10472-10485.	6.6	51
77	P-450cam hydroxylase: substrate-effector and electron-transport reactions. <i>Chemico-Biological Interactions</i> , 1971, 4, 75-78.	1.7	50
78	Roles of the Equatorial Tyrosyl Iron Ligand of Protocatechuate 3,4-Dioxygenase in Catalysis. <i>Biochemistry</i> , 2005, 44, 11024-11039.	1.2	50
79	Residues in <i>Methylosinus trichosporium</i> OB3b Methane Monooxygenase Component B Involved in Molecular Interactions with Reduced- and Oxidized-Hydroxylase Component: A Role for the N-Terminus. <i>Biochemistry</i> , 2001, 40, 9539-9551.	1.2	49
80	Key Amino Acid Residues in the Regulation of Soluble Methane Monooxygenase Catalysis by Component B. <i>Biochemistry</i> , 2003, 42, 5618-5631.	1.2	49
81	Intermediate P* from Soluble Methane Monooxygenase Contains a Diferrous Cluster. <i>Biochemistry</i> , 2013, 52, 4331-4342.	1.2	49
82	Conversion of Extradiol Aromatic Ring-Cleaving Homoprotocatechuate 2,3-Dioxygenase into an Intradiol Cleaving Enzyme. <i>Journal of the American Chemical Society</i> , 2003, 125, 11780-11781.	6.6	48
83	Oxy Intermediates of Homoprotocatechuate 2,3-Dioxygenase: Facile Electron Transfer between Substrates. <i>Biochemistry</i> , 2011, 50, 10262-10274.	1.2	48
84	Equilibrating (L)Fe ^{III} OOAc and (L)Fe ^V (O) Species in Hydrocarbon Oxidations by Bio-Inspired Nonheme Iron Catalysts Using H ₂ O ₂ and AcOH. <i>Journal of the American Chemical Society</i> , 2017, 139, 17313-17326.	6.6	48
85	Purification of a high specific activity methane monooxygenase hydroxylase component from a type II methanotroph. <i>Biochemical and Biophysical Research Communications</i> , 1988, 154, 165-170.	1.0	47
86	Regulation of Methane Monooxygenase Catalysis Based on Size Exclusion and Quantum Tunneling. <i>Biochemistry</i> , 2006, 45, 1685-1692.	1.2	46
87	Biochemical and Spectroscopic Studies on (S)-2-Hydroxypropylphosphonic Acid Epoxidase: A Novel Mononuclear Non-heme Iron Enzyme. <i>Biochemistry</i> , 2003, 42, 11577-11586.	1.2	45
88	Rate-Determining Attack on Substrate Precedes Rieske Cluster Oxidation during Cis-Dihydroxylation by Benzoate Dioxygenase. <i>Biochemistry</i> , 2015, 54, 4652-4664.	1.2	45
89	Diiron monooxygenases in natural product biosynthesis. <i>Natural Product Reports</i> , 2018, 35, 646-659.	5.2	44
90	Characterization of an O ₂ Adduct of an Active Cobalt-Substituted Extradiol-Cleaving Catechol Dioxygenase. <i>Journal of the American Chemical Society</i> , 2012, 134, 796-799.	6.6	42

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91	Crystal structure of CmlI, the arylamine oxygenase from the chloramphenicol biosynthetic pathway. <i>Journal of Biological Inorganic Chemistry</i> , 2016, 21, 589-603.	1.1	42
92	A two-electron-shell game: intermediates of the extradiol-cleaving catechol dioxygenases. <i>Journal of Biological Inorganic Chemistry</i> , 2014, 19, 491-504.	1.1	41
93	High-Resolution XFEL Structure of the Soluble Methane Monooxygenase Hydroxylase Complex with its Regulatory Component at Ambient Temperature in Two Oxidation States. <i>Journal of the American Chemical Society</i> , 2020, 142, 14249-14266.	6.6	41
94	Catalase (KatA) Plays a Role in Protection against Anaerobic Nitric Oxide in <i>Pseudomonas aeruginosa</i> . <i>PLoS ONE</i> , 2014, 9, e91813.	1.1	40
95	[14] Protocatechuate 3,4-dioxygenase from <i>Brevibacterium fuscum</i> . <i>Methods in Enzymology</i> , 1990, 188, 82-88.	0.4	39
96	Spectroscopic Studies of the Anaerobic Enzyme-Substrate Complex of Catechol 1,2-Dioxygenase. <i>Journal of the American Chemical Society</i> , 2005, 127, 16882-16891.	6.6	39
97	Near-IR MCD of the Nonheme Ferrous Active Site in Naphthalene 1,2-Dioxygenase: Correlation to Crystallography and Structural Insight into the Mechanism of Rieske Dioxygenases. <i>Journal of the American Chemical Society</i> , 2008, 130, 1601-1610.	6.6	39
98	Structure of a Dinuclear Iron Cluster-Containing $\hat{\text{I}}^2$ -Hydroxylase Active in Antibiotic Biosynthesis. <i>Biochemistry</i> , 2013, 52, 6662-6671.	1.2	38
99	Crystal structures of alkylperoxy and anhydride intermediates in an intradiol ring-cleaving dioxygenase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 388-393.	3.3	37
100	Mechanism for Six-Electron Aryl-N-Oxygenation by the Non-Heme Diiron Enzyme CmlI. <i>Journal of the American Chemical Society</i> , 2016, 138, 7411-7421.	6.6	37
101	Radiolytic Reduction of Methane Monooxygenase Dinuclear Iron Cluster at 77 K. <i>Journal of Biological Chemistry</i> , 1997, 272, 7022-7026.	1.6	36
102	Mössbauer Evidence for Antisymmetric Exchange in a Diferric Synthetic Complex and Diferric Methane Monooxygenase. <i>Journal of the American Chemical Society</i> , 1998, 120, 8739-8746.	6.6	36
103	Substrate-Mediated Oxygen Activation by Homoprotocatechuate 2,3-Dioxygenase: Intermediates Formed by a Tyrosine 257 Variant. <i>Biochemistry</i> , 2012, 51, 8743-8754.	1.2	35
104	Heme Binding Biguanides Target Cytochrome P450-Dependent Cancer Cell Mitochondria. <i>Cell Chemical Biology</i> , 2017, 24, 1259-1275.e6.	2.5	35
105	CYTOCHROME P-450**amSUBSTRATE AND EFFECTOR INTERACTIONS. <i>Annals of the New York Academy of Sciences</i> , 1973, 212, 107-121.	1.8	32
106	Resonance Raman studies of the protocatechuate 3,4-dioxygenase from <i>Brevibacterium fuscum</i> . <i>Biochemistry</i> , 1992, 31, 10443-10448.	1.2	32
107	Structural Basis for the Role of Tyrosine 257 of Homoprotocatechuate 2,3-Dioxygenase in Substrate and Oxygen Activation. <i>Biochemistry</i> , 2012, 51, 8755-8763.	1.2	32
108	Effector proteins from P450cam and methane monooxygenase: lessons in tuning nature's powerful reagents. <i>Biochemical and Biophysical Research Communications</i> , 2003, 312, 143-148.	1.0	31

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109	CD and MCD Studies of the Effects of Component B Variant Binding on the Biferrous Active Site of Methane Monooxygenase. <i>Biochemistry</i> , 2008, 47, 8386-8397.	1.2	31
110	NRVS Studies of the Peroxide Shunt Intermediate in a Rieske Dioxygenase and Its Relation to the Native Fe ^{II} O ₂ Reaction. <i>Journal of the American Chemical Society</i> , 2018, 140, 5544-5559.	6.6	31
111	Cytochrome P450cam: SS- dimer and -SH derivative reactivities. <i>Biochemical and Biophysical Research Communications</i> , 1978, 83, 771-778.	1.0	30
112	Determination of the quaternary structure of protocatechuate 3,4-dioxygenase from <i>Pseudomonas aeruginosa</i> . <i>Journal of Molecular Biology</i> , 1987, 195, 225-227.	2.0	30
113	Accessibility to the active site of methane monooxygenase: the first demonstration of exogenous ligand binding to the diiron cluster. <i>Journal of the American Chemical Society</i> , 1992, 114, 8711-8713.	6.6	30
114	Cloning, Overexpression, and Mutagenesis of the Gene for Homoprotocatechuate 2,3-Dioxygenase from <i>Brevibacterium fuscum</i> . <i>Protein Expression and Purification</i> , 1997, 10, 1-9.	0.6	30
115	Cyanide and Nitric Oxide Binding to Reduced Protocatechuate 3,4-Dioxygenase: An Insight into the Basis for Order-Dependent Ligand Binding by Intradiol Catecholic Dioxygenases. <i>Biochemistry</i> , 1997, 36, 14044-14055.	1.2	29
116	Mechanistic insights into C-H activation from radical clock chemistry: oxidation of substituted methylcyclopropanes catalyzed by soluble methane monooxygenase from <i>Methylosinus trichosporium</i> OB3b. <i>BBA - Proteins and Proteomics</i> , 2000, 1543, 47-59.	2.1	29
117	Modulation of Substrate Binding to Naphthalene 1,2-Dioxygenase by Rieske Cluster Reduction/Oxidation. <i>Journal of the American Chemical Society</i> , 2003, 125, 2034-2035.	6.6	29
118	Conversion of [3 Fe-3 S] into [4 Fe-4 S] clusters in a <i>Desulfovibrio gigas</i> ferredoxin and isotopic labeling of iron-sulfur cluster subsites. <i>FEBS Letters</i> , 1982, 138, 55-58.	1.3	28
119	Determination of the Substrate Binding Mode to the Active Site Iron of (S)-2-Hydroxypropylphosphonic Acid Epoxidase Using ¹⁷ O-Enriched Substrates and Substrate Analogues. <i>Biochemistry</i> , 2007, 46, 12628-12638.	1.2	28
120	Small-Molecule Tunnels in Metalloenzymes Viewed as Extensions of the Active Site. <i>Accounts of Chemical Research</i> , 2021, 54, 2185-2195.	7.6	28
121	Structural Basis for Substrate and Oxygen Activation in Homoprotocatechuate 2,3-Dioxygenase: Roles of Conserved Active Site Histidine 200. <i>Biochemistry</i> , 2015, 54, 5329-5339.	1.2	26
122	Methane Monooxygenase Hydroxylase and B Component Interactions. <i>Biochemistry</i> , 2006, 45, 2913-2926.	1.2	25
123	Role of the C-Terminal Region of the B Component of <i>Methylosinus trichosporium</i> OB3b Methane Monooxygenase in the Regulation of Oxygen Activation. <i>Biochemistry</i> , 2006, 45, 1459-1469.	1.2	24
124	Salicylate 5-Hydroxylase: Intermediates in Aromatic Hydroxylation by a Rieske Monooxygenase. <i>Biochemistry</i> , 2019, 58, 5305-5319.	1.2	24
125	Nuclear Resonance Vibrational Spectroscopic Definition of the Fe(IV) ₂ Intermediate Q in Methane Monooxygenase and Its Reactivity. <i>Journal of the American Chemical Society</i> , 2021, 143, 16007-16029.	6.6	24
126	[49] Formate dehydrogenase from <i>Methylosinus trichosporium</i> OB3b. <i>Methods in Enzymology</i> , 1990, 188, 331-334.	0.4	23

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127	Spectroscopic Studies of the Effect of Ligand Donor Strength on the Fe ²⁺ NO Bond in Intradiol Dioxygenases. <i>Inorganic Chemistry</i> , 2003, 42, 365-376.	1.9	23
128	Hydrogen Peroxide Sensitivity of Catechol-2,3-Dioxygenase: a Cautionary Note on Use of xylE Reporter Fusions under Aerobic Conditions. <i>Applied and Environmental Microbiology</i> , 2000, 66, 4119-4123.	1.4	22
129	Active-Site Structure of a $\hat{\text{I}}^2$ -Hydroxylase in Antibiotic Biosynthesis. <i>Journal of the American Chemical Society</i> , 2011, 133, 6938-6941.	6.6	21
130	A Carboxylate Shift Regulates Dioxygen Activation by the Diiron Nonheme $\hat{\text{I}}^2$ -Hydroxylase CmlA upon Binding of a Substrate-Loaded Nonribosomal Peptide Synthetase. <i>Biochemistry</i> , 2016, 55, 5818-5831.	1.2	21
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