John D Lipscomb

List of Publications by Year
in descending order

159 papers	13,520 citations	17405 63 h-index	23472 111 g-index
162 all docs	162 docs citations	162 times ranked	6127 citing authors

#	Article	IF	Citations
1	X-ray Crystal Structures of Methane Monooxygenase Hydroxylase Complexes with Variants of Its Regulatory Component: Correlations with Altered Reaction Cycle Dynamics. Biochemistry, 2022, 61, 21-33.	1.2	2
2	<scp>6â€phenylpyrrolocytosine</scp> as a fluorescent probe to examine nucleotide flipping catalyzed by a <scp>DNA</scp> repair protein. Biopolymers, 2021, 112, e23405.	1.2	3
3	Small-Molecule Tunnels in Metalloenzymes Viewed as Extensions of the Active Site. Accounts of Chemical Research, 2021, 54, 2185-2195.	7.6	28
4	Soluble Methane Monooxygenase Component Interactions Monitored by ¹⁹F NMR. Biochemistry, 2021, 60, 1995-2010.	1.2	8
5	Nuclear Resonance Vibrational Spectroscopic Definition of the Fe(IV)₂ Intermediate Q in Methane Monooxygenase and Its Reactivity. Journal of the American Chemical Society, 2021, 143, 16007-16029.	6.6	24
6	High-Resolution XFEL Structure of the Soluble Methane Monooxygenase Hydroxylase Complex with its Regulatory Component at Ambient Temperature in Two Oxidation States. Journal of the American Chemical Society, 2020, 142, 14249-14266.	6.6	41
7	Structural Studies of the <i>Methylosinus trichosporium</i> OB3b Soluble Methane Monooxygenase Hydroxylase and Regulatory Component Complex Reveal a Transient Substrate Tunnel. Biochemistry, 2020, 59, 2946-2961.	1.2	19
8	Salicylate 5-Hydroxylase: Intermediates in Aromatic Hydroxylation by a Rieske Monooxygenase. Biochemistry, 2019, 58, 5305-5319.	1.2	24
9	Soluble Methane Monooxygenase. Annual Review of Biochemistry, 2019, 88, 409-431.	5.0	124
10	NRVS Studies of the Peroxide Shunt Intermediate in a Rieske Dioxygenase and Its Relation to the Native Fe^{II} O₂ Reaction. Journal of the American Chemical Society, 2018, 140, 5544-5559.	6.6	31
11	Diiron monooxygenases in natural product biosynthesis. Natural Product Reports, 2018, 35, 646-659.	5.2	44
12	Nuclear Resonance Vibrational Spectroscopy Definition of O₂ Intermediates in an Extradiol Dioxygenase: Correlation to Crystallography and Reactivity. Journal of the American Chemical Society, 2018, 140, 16495-16513.	6.6	14
13	High-Resolution Extended X-ray Absorption Fine Structure Analysis Provides Evidence for a Longer FeÂ·Â·Â·Fe Distance in the Q Intermediate of Methane Monooxygenase. Journal of the American Chemical Society, 2018, 140, 16807-16820.	6.6	82
14	Rational Optimization of Mechanism-Based Inhibitors through Determination of the Microscopic Rate Constants of Inactivation. Journal of the American Chemical Society, 2017, 139, 7132-7135.	6.6	8
15	Double-flow focused liquid injector for efficient serial femtosecond crystallography. Scientific Reports, 2017, 7, 44628.	1.6	90
16	CmlI <i>N</i>-Oxygenase Catalyzes the Final Three Steps in Chloramphenicol Biosynthesis without Dissociation of Intermediates. Biochemistry, 2017, 56, 4940-4950.	1.2	21
17	Heme Binding Biguanides Target Cytochrome P450-Dependent Cancer Cell Mitochondria. Cell Chemical Biology, 2017, 24, 1259-1275.e6.	2.5	35
18	Equilibrating (L)Fe^{III}â€"OOAc and (L)Fe^V(O) Species in Hydrocarbon Oxidations by Bio-Inspired Nonheme Iron Catalysts Using H₂O₂ and AcOH. Journal of the American Chemical Society, 2017, 139, 17313-17326.	6.6	48

#	Article	IF	Citations
19	High-Energy-Resolution Fluorescence-Detected X-ray Absorption of the Q Intermediate of Soluble Methane Monooxygenase. Journal of the American Chemical Society, 2017, 139, 18024-18033.	6.6	98
20	Unprecedented (Î¼-1,1-Peroxo)diferric Structure for the Ambiphilic Orange Peroxo Intermediate of the Nonheme <i>N</i>-Oxygenase CmlI. Journal of the American Chemical Society, 2017, 139, 10472-10485.	6.6	51
21	Use of Isotopes and Isotope Effects for Investigations of Diiron Oxygenase Mechanisms. Methods in Enzymology, 2017, 596, 239-290.	0.4	13
22	Mechanism for Six-Electron Aryl-N-Oxygenation by the Non-Heme Diiron Enzyme CmlI. Journal of the American Chemical Society, 2016, 138, 7411-7421.	6.6	37
23	Crystal structure of CmlI, the arylamine oxygenase from the chloramphenicol biosynthetic pathway. Journal of Biological Inorganic Chemistry, 2016, 21, 589-603.	1.1	42
24	A Carboxylate Shift Regulates Dioxygen Activation by the Diiron Nonheme Î²-Hydroxylase CmlA upon Binding of a Substrate-Loaded Nonribosomal Peptide Synthetase. Biochemistry, 2016, 55, 5818-5831.	1.2	21
25	Enzyme Substrate Complex of the H200C Variant of Homoprotocatechuate 2,3-Dioxygenase: MÃ¶ssbauer and Computational Studies. Inorganic Chemistry, 2016, 55, 5862-5870.	1.9	4
26	Crystal structures of alkylperoxo and anhydride intermediates in an intradiol ring-cleaving dioxygenase. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 388-393.	3.3	37
27	An Unusual Peroxo Intermediate of the Arylamine Oxygenase of the Chloramphenicol Biosynthetic Pathway. Journal of the American Chemical Society, 2015, 137, 1608-1617.	6.6	71
28	Structure of the key species in the enzymatic oxidation of methane to methanol. Nature, 2015, 518, 431-434.	13.7	241
29	Rate-Determining Attack on Substrate Precedes Rieske Cluster Oxidation during Cis-Dihydroxylation by Benzoate Dioxygenase. Biochemistry, 2015, 54, 4652-4664.	1.2	45
30	A Long-Lived Fe^{III}-(Hydroperoxo) Intermediate in the Active H200C Variant of Homoprotocatechuate 2,3-Dioxygenase: Characterization by MÃ¶ssbauer, Electron Paramagnetic Resonance, and Density Functional Theory Methods. Inorganic Chemistry, 2015, 54, 10269-10280.	1.9	17
31	Structural Basis for Substrate and Oxygen Activation in Homoprotocatechuate 2,3-Dioxygenase: Roles of Conserved Active Site Histidine 200. Biochemistry, 2015, 54, 5329-5339.	1.2	26
32	Catalase (KatA) Plays a Role in Protection against Anaerobic Nitric Oxide in Pseudomonas aeruginosa. PLoS ONE, 2014, 9, e91813.	1.1	40
33	A two-electron-shell game: intermediates of the extradiol-cleaving catechol dioxygenases. Journal of Biological Inorganic Chemistry, 2014, 19, 491-504.	1.1	41
34	Life in a Sea of Oxygen. Journal of Biological Chemistry, 2014, 289, 15141-15153.	1.6	5
35	NO binding to Mn-substituted homoprotocatechuate 2,3-dioxygenase: relationship to O2 reactivity. Journal of Biological Inorganic Chemistry, 2013, 18, 717-728.	1.1	7
36	Intermediate P* from Soluble Methane Monooxygenase Contains a Diferrous Cluster. Biochemistry, 2013, 52, 4331-4342.	1.2	49

#	Article	IF	Citations
37	Cyanobacterial Aldehyde Deformylase Oxygenation of Aldehydes Yields <i>n</i> â€“ 1 Aldehydes and Alcohols in Addition to Alkanes. ACS Catalysis, 2013, 3, 2228-2238.	5.5	58
38	Structure of a Dinuclear Iron Cluster-Containing Î²-Hydroxylase Active in Antibiotic Biosynthesis. Biochemistry, 2013, 52, 6662-6671.	1.2	38
39	Structural and Molecular Characterization of Iron-sensing Hemerythrin-like Domain within F-box and Leucine-rich Repeat Protein 5 (FBXL5). Journal of Biological Chemistry, 2012, 287, 7357-7365.	1.6	59
40	Structural Basis for the Role of Tyrosine 257 of Homoprotocatechuate 2,3-Dioxygenase in Substrate and Oxygen Activation. Biochemistry, 2012, 51, 8755-8763.	1.2	32
41	Substrate-Mediated Oxygen Activation by Homoprotocatechuate 2,3-Dioxygenase: Intermediates Formed by a Tyrosine 257 Variant. Biochemistry, 2012, 51, 8743-8754.	1.2	35
42	Characterization of an O₂ Adduct of an Active Cobalt-Substituted Extradiol-Cleaving Catechol Dioxygenase. Journal of the American Chemical Society, 2012, 134, 796-799.	6.6	42
43	Oxy Intermediates of Homoprotocatechuate 2,3-Dioxygenase: Facile Electron Transfer between Substrates. Biochemistry, 2011, 50, 10262-10274.	1.2	48
44	Active-Site Structure of a Î²-Hydroxylase in Antibiotic Biosynthesis. Journal of the American Chemical Society, 2011, 133, 6938-6941.	6.6	21
45	A hyperactive cobalt-substituted extradiol-cleaving catechol dioxygenase. Journal of Biological Inorganic Chemistry, 2011, 16, 341-355.	1.1	65
46	A family of diiron monooxygenases catalyzing amino acid beta-hydroxylation in antibiotic biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15391-15396.	3.3	79
47	Trapping and spectroscopic characterization of an Fe ^{III} -superoxo intermediate from a nonheme mononuclear iron-containing enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16788-16793.	3.3	141
48	Versatility of biological non-heme Fe(II) centers in oxygen activation reactions. Nature Chemical Biology, 2008, 4, 186-193.	3.9	551
49	Mechanism of extradiol aromatic ring-cleaving dioxygenases. Current Opinion in Structural Biology, 2008, 18, 644-649.	2.6	171
50	Near-IR MCD of the Nonheme Ferrous Active Site in Naphthalene 1,2-Dioxygenase:â€‰ Correlation to Crystallography and Structural Insight into the Mechanism of Rieske Dioxygenases. Journal of the American Chemical Society, 2008, 130, 1601-1610.	6.6	39
51	CD and MCD Studies of the Effects of Component B Variant Binding on the Biferrous Active Site of Methane Monooxygenase. Biochemistry, 2008, 47, 8386-8397.	1.2	31
52	Electron Paramagnetic Resonance Detection of Intermediates in the Enzymatic Cycle of an Extradiol Dioxygenase. Journal of the American Chemical Society, 2008, 130, 14465-14467.	6.6	77
53	Intermediate in the Oâˆ’O Bond Cleavage Reaction of an Extradiol Dioxygenase[,]. Biochemistry, 2008, 47, 11168-11170.	1.2	58
54	Swapping metals in Fe- and Mn-dependent dioxygenases: Evidence for oxygen activation without a change in metal redox state. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7347-7352.	3.3	109

#	Article	IF	Citations
55	Spectroscopic and Electronic Structure Study of the Enzymeâˆ'Substrate Complex of Intradiol Dioxygenases:Â Substrate Activation by a High-Spin Ferric Non-heme Iron Site. Journal of the American Chemical Society, 2007, 129, 1944-1958.	6.6	81
56	VTVH-MCD and DFT Studies of Thiolate Bonding to {FeNO}7/{FeO2}8Complexes of IsopenicillinNSynthase:Â Substrate Determination of Oxidase versus Oxygenase Activity in Nonheme Fe Enzymes. Journal of the American Chemical Society, 2007, 129, 7427-7438.	6.6	105
57	Determination of the Substrate Binding Mode to the Active Site Iron of (S)-2-Hydroxypropylphosphonic Acid Epoxidase Using 17O-Enriched Substrates and Substrate Analogues. Biochemistry, 2007, 46, 12628-12638.	1.2	28
58	Radical Intermediates in Monooxygenase Reactions of Rieske Dioxygenases. Journal of the American Chemical Society, 2007, 129, 3514-3515.	6.6	105
59	Finding Intermediates in the O2 Activation Pathways of Non-Heme Iron Oxygenases. Accounts of Chemical Research, 2007, 40, 475-483.	7.6	229
60	Hydrogen Peroxide Dependent cis-Dihydroxylation of Benzoate by Fully Oxidized Benzoate 1,2-Dioxygenase. Biochemistry, 2007, 46, 8004-8016.	1.2	88
61	Crystal Structures of Fe2+ Dioxygenase Superoxo, Alkylperoxo, and Bound Product Intermediates. Science, 2007, 316, 453-457.	6.0	357
62	Two-pronged survival strategy for the major cystic fibrosis pathogen, Pseudomonas aeruginosa, lacking the capacity to degrade nitric oxide during anaerobic respiration. EMBO Journal, 2007, 26, 3662-3672.	3.5	63
63	Substrate activation for O2 reactions by oxidized metal centers in biology. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18355-18362.	3.3	100
64	Methane Monooxygenase Hydroxylase and B Component Interactionsâ€. Biochemistry, 2006, 45, 2913-2926.	1.2	25
65	Regulation of Methane Monooxygenase Catalysis Based on Size Exclusion and Quantum Tunnelingâ€. Biochemistry, 2006, 45, 1685-1692.	1.2	46
66	Role of the C-Terminal Region of the B Component ofMethylosinus trichosporiumOB3b Methane Monooxygenase in the Regulation of Oxygen Activationâ€. Biochemistry, 2006, 45, 1459-1469.	1.2	24
67	Basis for specificity in methane monooxygenase and related non-heme iron-containing biological oxidation catalysts. Journal of Molecular Catalysis A, 2006, 251, 54-65.	4.8	15
68	Allosteric Control of O2 Reactivity in Rieske Oxygenases. Structure, 2005, 13, 684-685.	1.6	3
69	Roles of the Equatorial Tyrosyl Iron Ligand of Protocatechuate 3,4-Dioxygenase in Catalysisâ€,â€¡. Biochemistry, 2005, 44, 11024-11039.	1.2	50
70	Aromatic Ring Cleavage by Homoprotocatechuate 2,3-Dioxygenase:Â Role of His200 in the Kinetics of Interconversion of Reaction Cycle Intermediatesâ€. Biochemistry, 2005, 44, 7175-7188.	1.2	73
71	Spectroscopic Studies of the Anaerobic Enzymeâˆ'Substrate Complex of Catechol 1,2-Dioxygenase. Journal of the American Chemical Society, 2005, 127, 16882-16891.	6.6	39
72	Substrate radical intermediates in soluble methane monooxygenase. Biochemical and Biophysical Research Communications, 2005, 338, 254-261.	1.0	12

#	Article	IF	Citations
73	Site-directed mutagenesis and spectroscopic studies of the iron-binding site of (S)-2-hydroxypropylphosphonic acid epoxidase. Archives of Biochemistry and Biophysics, 2005, 442, 82-91.	1.4	13
74	ENDOR Studies of the Ligation and Structure of the Non-Heme Iron Site in ACC Oxidase. Journal of the American Chemical Society, 2005, 127, 7005-7013.	6.6	70
75	Crystallographic Comparison of Manganese- and Iron-Dependent Homoprotocatechuate 2,3-Dioxygenases. Journal of Bacteriology, 2004, 186, 1945-1958.	1.0	152
76	Mechanistic studies of 1-aminocyclopropane-1-carboxylic acid oxidase: single turnover reaction. Journal of Biological Inorganic Chemistry, 2004, 9, 171-182.	1.1	72
77	Single-Turnover Kinetics of Homoprotocatechuate 2,3-Dioxygenaseâ€. Biochemistry, 2004, 43, 15141-15153.	1.2	54
78	Spectroscopic Studies of the Effect of Ligand Donor Strength on the Feâ˜NO Bond in Intradiol Dioxygenases. Inorganic Chemistry, 2003, 42, 365-376.	1.9	23
79	Modulation of Substrate Binding to Naphthalene 1,2-Dioxygenase by Rieske Cluster Reduction/Oxidation. Journal of the American Chemical Society, 2003, 125, 2034-2035.	6.6	29
80	Conversion of Extradiol Aromatic Ring-Cleaving Homoprotocatechuate 2,3-Dioxygenase into an Intradiol Cleaving Enzyme. Journal of the American Chemical Society, 2003, 125, 11780-11781.	6.6	48
81	Biochemical and Spectroscopic Studies on (S)-2-Hydroxypropylphosphonic Acid Epoxidase:Â A Novel Mononuclear Non-heme Iron Enzymeâ€. Biochemistry, 2003, 42, 11577-11586.	1.2	45
82	Substrate Binding to NOâ˜Ferroâ˜Naphthalene 1,2-Dioxygenase Studied by High-Resolution Q-Band Pulsed2H-ENDOR Spectroscopy. Journal of the American Chemical Society, 2003, 125, 7056-7066.	6.6	59
83	Key Amino Acid Residues in the Regulation of Soluble Methane Monooxygenase Catalysis by Component Bâ€. Biochemistry, 2003, 42, 5618-5631.	1.2	49
84	Effector proteins from P450cam and methane monooxygenase: lessons in tuning natureâ€™s powerful reagents. Biochemical and Biophysical Research Communications, 2003, 312, 143-148.	1.0	31
85	Hydrogen Peroxide-coupled cis-Diol Formation Catalyzed by Naphthalene 1,2-Dioxygenase. Journal of Biological Chemistry, 2003, 278, 829-835.	1.6	117
86	Benzoate 1,2-Dioxygenase fromPseudomonas putida:Â Single Turnover Kinetics and Regulation of a Two-Component Rieske Dioxygenaseâ€. Biochemistry, 2002, 41, 9611-9626.	1.2	90
87	Spectroscopic Studies of 1-Aminocyclopropane-1-carboxylic Acid Oxidase:â€‰ Molecular Mechanism and CO2 Activation in the Biosynthesis of Ethylene. Journal of the American Chemical Society, 2002, 124, 4602-4609.	6.6	64
88	Spectroscopic and Electronic Structure Studies of Protocatechuate 3,4-Dioxygenase:â€‰ Nature of Tyrosinateâ˜Fe(III) Bonds and Their Contribution to Reactivity. Journal of the American Chemical Society, 2002, 124, 602-614.	6.6	88
89	Thermodynamic and kinetic evidence for a two-step reaction between methane monooxygenase compound Q and substrates. International Congress Series, 2002, 1233, 229-233.	0.2	2
90	Methane monooxygenase and compound Q: lessons in oxygen activation. International Congress Series, 2002, 1233, 205-212.	0.2	2

#	Article	IF	Citations
91	Methane Monooxygenase Component B Mutants Alter the Kinetics of Steps Throughout the Catalytic Cycle. Biochemistry, 2001, 40, 2220-2233.	1.2	83
92	Unmasking of Deuterium Kinetic Isotope Effects on the Methane Monooxygenase Compound Q Reaction by Site-Directed Mutagenesis of Component B. Journal of the American Chemical Society, 2001, 123, 10421-10422.	6.6	59
93	Intermediate Q from Soluble Methane Monooxygenase Hydroxylates the Mechanistic Substrate Probe Norcarane:Â Evidence for a Stepwise Reaction. Journal of the American Chemical Society, 2001, 123, 11831-11837.	6.6	85
94	Residues inMethylosinus trichosporiumOB3b Methane Monooxygenase Component B Involved in Molecular Interactions with Reduced- and Oxidized-Hydroxylase Component:Â A Role for the N-Terminusâ€. Biochemistry, 2001, 40, 9539-9551.	1.2	49
95	Desaturation reactions catalyzed by soluble methane monooxygenase. Journal of Biological Inorganic Chemistry, 2001, 6, 717-725.	1.1	53
96	Single Turnover Chemistry and Regulation of O2Activation by the Oxygenase Component of Naphthalene 1,2-Dioxygenase. Journal of Biological Chemistry, 2001, 276, 1945-1953.	1.6	143
97	Kinetics and Activation Thermodynamics of Methane Monooxygenase Compound Q Formation and Reaction with Substrates. Biochemistry, 2000, 39, 13503-13515.	1.2	133
98	Mechanistic insights into Câ€"H activation from radical clock chemistry: oxidation of substituted methylcyclopropanes catalyzed by soluble methane monooxygenase from Methylosinus trichosporium OB3b. BBA - Proteins and Proteomics, 2000, 1543, 47-59.	2.1	29
99	Electron Transfer and Radical Forming Reactions of Methane Monooxygenase. Sub-Cellular Biochemistry, 2000, 35, 233-277.	1.0	6
100	Hydrogen Peroxide Sensitivity of Catechol-2,3-Dioxygenase: a Cautionary Note on Use of xylE Reporter Fusions under Aerobic Conditions. Applied and Environmental Microbiology, 2000, 66, 4119-4123.	1.4	22
101	Role of the nonheme Fe(II) center in the biosynthesis of the plant hormone ethylene. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 7905-7909.	3.3	111
102	Probing the Mechanism of Câˆ'H Activation:Â Oxidation of Methylcubane by Soluble Methane Monooxygenase fromMethylosinus trichosporiumOB3bâ€. Biochemistry, 1999, 38, 6178-6186.	1.2	51
103	Oxygen Activation Catalyzed by Methane Monooxygenase Hydroxylase Component:Â Proton Delivery during the Oâˆ'O Bond Cleavage Stepsâ€. Biochemistry, 1999, 38, 4423-4432.	1.2	186
104	Solution Structure of Component B from Methane Monooxygenase Derived through Heteronuclear NMR and Molecular Modelingâ€,â€¡. Biochemistry, 1999, 38, 5799-5812.	1.2	79
105	Spectroscopic Investigation of Reduced Protocatechuate 3,4-Dioxygenase:â€‰ Charge-Induced Alterations in the Active Site Iron Coordination Environment. Inorganic Chemistry, 1999, 38, 3676-3683.	1.9	18
106	The Axial Tyrosinate Fe3+Ligand in Protocatechuate 3,4-Dioxygenase Influences Substrate Binding and Product Release:Â Evidence for New Reaction Cycle Intermediatesâ€,â€¡. Biochemistry, 1998, 37, 2131-2144.	1.2	67
107	Intermediates in Non-Heme Iron Intradiol Dioxygenase Catalysis. ACS Symposium Series, 1998, , 387-402.	0.5	3
108	MMO: P450 in wolf's clothing?. Journal of Biological Inorganic Chemistry, 1998, 3, 331-336.	1.1	57

#	Article	IF	Citations
109	MÃ¶ssbauer Evidence for Antisymmetric Exchange in a Diferric Synthetic Complex and Diferric Methane Monooxygenase. Journal of the American Chemical Society, 1998, 120, 8739-8746.	6.6	36
110	Fundamentally Divergent Strategies for Oxygen Activation by Fe2+ and Fe3+ Catecholic Dioxygenases. , 1998, , 263-275.		2
111	Radiolytic Reduction of Methane Monooxygenase Dinuclear Iron Cluster at 77 K. Journal of Biological Chemistry, 1997, 272, 7022-7026.	1.6	36
112	Structures of Competitive Inhibitor Complexes of Protocatechuate 3,4-Dioxygenase:Â Multiple Exogenous Ligand Binding Orientations within the Active Siteâ€‚â€¡. Biochemistry, 1997, 36, 10039-10051.	1.2	92
113	Crystal Structures of Substrate and Substrate Analog Complexes of Protocatechuate 3,4-Dioxygenase:Â Endogenous Fe3+Ligand Displacement in Response to Substrate Bindingâ€‚â€¡. Biochemistry, 1997, 36, 10052-10066.	1.2	174
114	Roles of the Methane Monooxygenase Reductase Component in the Regulation of Catalysis. Biochemistry, 1997, 36, 5223-5233.	1.2	70
115	Ligand Field Circular Dichroism and Magnetic Circular Dichroism Studies of Component B and Substrate Binding to the Hydroxylase Component of Methane Monooxygenase. Journal of the American Chemical Society, 1997, 119, 387-395.	6.6	75
116	Cyanide and Nitric Oxide Binding to Reduced Protocatechuate 3,4-Dioxygenase:Â Insight into the Basis for Order-Dependent Ligand Binding by Intradiol Catecholic Dioxygenasesâ€. Biochemistry, 1997, 36, 14044-14055.	1.2	29
117	An Fe2IVO2 Diamond Core Structure for the Key Intermediate Q of Methane Monooxygenase. Science, 1997, 275, 515-518.	6.0	583
118	Cloning, Overexpression, and Mutagenesis of the Gene for Homoprotocatechuate 2,3-Dioxygenase fromBrevibacterium fuscum. Protein Expression and Purification, 1997, 10, 1-9.	0.6	30
119	Crystal Structure and Resonance Raman Studies of Protocatechuate 3,4- Dioxygenase Complexed with 3,4-Dihydroxyphenylacetateâ€‚â€¡. Biochemistry, 1997, 36, 11504-11513.	1.2	86
120	Crystal structure of the hydroxylase component of methane monooxygenase from<i>Methylosinus trichosporium</i>OB3b. Protein Science, 1997, 6, 556-568.	3.1	265
121	Large Kinetic Isotope Effects in Methane Oxidation Catalyzed by Methane Monooxygenase:Â Evidence for Câˆ'H Bond Cleavage in a Reaction Cycle Intermediateâ€. Biochemistry, 1996, 35, 10240-10247.	1.2	261
122	Dioxygen Activation by Enzymes Containing Binuclear Non-Heme Iron Clusters. Chemical Reviews, 1996, 96, 2625-2658.	23.0	1,211
123	Homoprotocatechuate 2,3-Dioxygenase from Brevibacterium fuscum. Journal of Biological Chemistry, 1996, 271, 5524-5535.	1.6	69
124	Gating Effects of Component B on Oxygen Activation by the Methane Monooxygenase Hydroxylase Component. Journal of Biological Chemistry, 1995, 270, 24662-24665.	1.6	104
125	X-ray absorption spectroscopic studies of the Fe(II) active site of catechol 2,3-dioxygenase. Implications for the extradiol cleavage mechanism. Biochemistry, 1995, 34, 6649-6659.	1.2	162
126	Biochemistry of the Soluble Methane Monooxygenase. Annual Review of Microbiology, 1994, 48, 371-399.	2.9	393

#	Article	IF	Citations
127	Preliminary Crystallographic Study of Protocatechuate 3,4-Dioxygenase from Brevibacterium fuscum. Journal of Molecular Biology, 1994, 236, 374-376.	2.0	18
128	Preliminary Crystallographic Analysis of Methane Mono-oxygenase Hydroxylase from Methylosinus trichosporium OB3b. Journal of Molecular Biology, 1994, 236, 379-381.	2.0	7
129	Structure of Protocatechuate 3,4-Dioxygenase from Pseudomonas aeruginosa at 2.15 Ã… Resolution. Journal of Molecular Biology, 1994, 244, 586-608.	2.0	195
130	Oxidation-reduction potentials of the methane monooxygenase hydroxylase component from Methylosinus trichosporium OB3b. Biochemistry, 1994, 33, 713-722.	1.2	119
131	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. Journal of the American Chemical Society, 1993, 115, 12409-12422.	6.6	96
132	Moessbauer, EPR, and ENDOR studies of the hydroxylase and reductase components of methane monooxygenase from Methylosinus trichosporium OB3b. Journal of the American Chemical Society, 1993, 115, 3688-3701.	6.6	185
133	A transient intermediate of the methane monooxygenase catalytic cycle containing an FeIVFeIV cluster. Journal of the American Chemical Society, 1993, 115, 6450-6451.	6.6	337
134	Accessibility to the active site of methane monooxygenase: the first demonstration of exogenous ligand binding to the diiron cluster. Journal of the American Chemical Society, 1992, 114, 8711-8713.	6.6	30
135	Resonance Raman studies of the protocatechuate 3,4-dioxygenase from Brevibacterium fuscum. Biochemistry, 1992, 31, 10443-10448.	1.2	32
136	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. Biochemistry, 1992, 31, 4602-4612.	1.2	104
137	Variable-temperature variable-field magnetic circular dichroism studies of the iron(II) active site in metapyrocatechase: implications for the molecular mechanism of extradiol dioxygenases. Journal of the American Chemical Society, 1991, 113, 4053-4061.	6.6	90
138	Oxygenation by Methane Monooxygenase: Oxygen Activation and Component Interactions. , 1991, , 39-53.		1
139	[17] Gentisate 1,2-dioxygenase from Pseudomonas acidovorans. Methods in Enzymology, 1990, 188, 101-107.	0.4	11
140	[49] Formate dehydrogenase from Methylosinus trichosporium OB3b. Methods in Enzymology, 1990, 188, 331-334.	0.4	23
141	An EXAFS study of the interaction of substrate with the ferric active site of protocatechuate 3,4-dioxygenase. Biochemistry, 1990, 29, 10847-10854.	1.2	84
142	Haloalkene oxidation by the soluble methane monooxygenase from Methylosinus trichosporium OB3b: mechanistic and environmental implications. Biochemistry, 1990, 29, 6419-6427.	1.2	420
143	Integer-spin EPR studies of the fully reduced methane monooxygenase hydroxylase component. Journal of the American Chemical Society, 1990, 112, 5861-5865.	6.6	145
144	[14] Protocatechuate 3,4-dioxygenase from Brevibacterium fuscum. Methods in Enzymology, 1990, 188, 82-88.	0.4	39

#	Article	IF	Citations
145	[31] Methane monooxygenase from Methylosinus trichosporium OB3b. Methods in Enzymology, 1990, 188, 191-202.	0.4	89
146	Methane Monooxygenase: A Novel Biological Catalyst for Hydrocarbon Oxidations. , 1990, , 367-388.		16
147	Purification of a high specific activity methane monooxygenase hydroxylase component from a type II methanotroph. Biochemical and Biophysical Research Communications, 1988, 154, 165-170.	1.0	47
148	Determination of the quaternary structure of protocatechuate 3,4-dioxygenase from Pseudomonas aeruginosa. Journal of Molecular Biology, 1987, 195, 225-227.	2.0	30
149	A â€˜blueâ€™ copper oxidase from Nitrosomonas europaea. BBA - Proteins and Proteomics, 1985, 827, 320-326.	2.1	67
150	Unusual spin interactions in the 24 heme hydroxylamine oxidoreductase and diheme cytochrome c 554 from nitrosomonas. Inorganica Chimica Acta, 1983, 79, 181-182.	1.2	9
151	Conversion of [3 Fe-3 S] into [4 Fe-4 S] clusters in a Desulfovibrio gigas ferredoxin and isotopic labeling of iron-sulfur cluster subsites. FEBS Letters, 1982, 138, 55-58.	1.3	28
152	Protocatechuate Dioxygenases: Structural and Mechanistic Studies. , 1982, , 483-507.		2
153	Electron paramagnetic resonance detectable states of cytochrome P-450cam. Biochemistry, 1980, 19, 3590-3599.	1.2	196
154	Cytochrome P450cam: SS- dimer and -SH derivative reactivities. Biochemical and Biophysical Research Communications, 1978, 83, 771-778.	1.0	30
155	Superoxide anion production by the autoxidation of cytochrome P450cam. Biochemical and Biophysical Research Communications, 1974, 61, 290-296.	1.0	146
156	A Role of the Putidaredoxin COOH-terminus in P-450cam (Cytochrome m) Hydroxylations. Proceedings of the National Academy of Sciences of the United States of America, 1974, 71, 3906-3910.	3.3	114
157	CYTOCHROME P-450***amSUBSTRATE AND EFFECTOR INTERACTIONS. Annals of the New York Academy of Sciences, 1973, 212, 107-121.	1.8	32
158	The Roles of Putidaredoxin and P450cam in Methylene Hydroxylation. Journal of Biological Chemistry, 1972, 247, 5777-5784.	1.6	214
159	P-450cam hydroxylase: substrate-effector and electron-transport reactions. Chemico-Biological Interactions, 1971, 4, 75-78.	1.7	50