Anne-Frances Miller

List of Publications by Year
in descending order

80 papers	4,921 citations	108046 37 h-index	104191 69 g-index
84 all docs	84 docs citations	84 times ranked	6701 citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding flavin electronic structure and spectra. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2022, 12, e1541.	6.2	19
2	Cover Image, Volume 12, Issue 2. Wiley Interdisciplinary Reviews: Computational Molecular Science, 2022, 12, .	6.2	0
3	Contrasting roles for two conserved arginines: Stabilizing flavin semiquinone or quaternary structure, in bifurcating electron transfer flavoproteins. Journal of Biological Chemistry, 2022, 298, 101733.	1.6	5
4	How additives for tin halide perovskites influence the Sn⁴⁺ concentration. Journal of Materials Chemistry A, 2022, 10, 13278-13285.	5.2	13
5	Assignments of 19F NMR resonances and exploration of dynamics in a long-chain flavodoxin. Archives of Biochemistry and Biophysics, 2021, 703, 108839.	1.4	3
6	Photogeneration and reactivity of flavin anionic semiquinone in a bifurcating electron transfer flavoprotein. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148415.	0.5	6
7	Tuning the Quantum Chemical Properties of Flavins via Modification at C8. Journal of Physical Chemistry B, 2021, 125, 12654-12669.	1.2	7
8	Spectroscopic evidence for direct flavin-flavin contact in a bifurcating electron transfer flavoprotein. Journal of Biological Chemistry, 2020, 295, 12618-12634.	1.6	8
9	Tuning of pK values activates substrates in flavin-dependent aromatic hydroxylases. Journal of Biological Chemistry, 2020, 295, 3965-3981.	1.6	11
10	Spectroscopic, thermodynamic and computational evidence of the locations of the FADs in the nitrogen fixation-associated electron transfer flavoprotein. Chemical Science, 2019, 10, 7762-7772.	3.7	11
11	The catalytic mechanism of electron-bifurcating electron transfer flavoproteins (ETFs) involves an intermediary complex with NAD+. Journal of Biological Chemistry, 2019, 294, 3271-3283.	1.6	30
12	Reduction midpoint potentials of bifurcating electron transfer flavoproteins. Methods in Enzymology, 2019, 620, 365-398.	0.4	5
13	Distinct properties underlie flavin-based electron bifurcation in a novel electron transfer flavoprotein FixAB from Rhodopseudomonas palustris. Journal of Biological Chemistry, 2018, 293, 4688-4701.	1.6	22
14	Informing Efforts to Develop Nitroreductase for Amine Production. Molecules, 2018, 23, 211.	1.7	23
15	Mechanistic insights into energy conservation by flavin-based electron bifurcation. Nature Chemical Biology, 2017, 13, 655-659.	3.9	121
16	Layer-by-Layer-Assembled Laccase Enzyme on Stimuli-Responsive Membranes for Chloro-Organics Degradation. ACS Applied Materials & Interfaces, 2017, 9, 14858-14867.	4.0	62
17	Mechanism-Informed Refinement Reveals Altered Substrate-Binding Mode for Catalytically Competent Nitroreductase. Structure, 2017, 25, 978-987.e4.	1.6	18
18	Equilibrium and ultrafast kinetic studies manipulating electron transfer: A short-lived flavin semiquinone is not sufficient for electron bifurcation. Journal of Biological Chemistry, 2017, 292, 14039-14049.	1.6	23

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19	The Electron Bifurcating FixABCX Protein Complex from <i>Azotobacter vinelandii</i>: Generation of Low-Potential Reducing Equivalents for Nitrogenase Catalysis. Biochemistry, 2017, 56, 4177-4190.	1.2	140
20	Defining Electron Bifurcation in the Electron-Transferring Flavoprotein Family. Journal of Bacteriology, 2017, 199, .	1.0	78
21	A Single Outer-Sphere Mutation Stabilizes apo-Mn Superoxide Dismutase by 35 Â°C and Disfavors Mn Binding. Biochemistry, 2017, 56, 3787-3799.	1.2	3
22	Unboiling an Egg: An Introduction to Circular Dichroism and Protein Refolding. Journal of Chemical Education, 2017, 94, 356-360.	1.1	2
23	Inverted Micelleâ€inâ€Micelle Configuration in Cationic/Carbohydrate Surfactant Mixtures. ChemPhysChem, 2017, 18, 79-86.	1.0	2
24	Flavin-sensitized electrode system for oxygen evolution using photo-electrocatalysis. Chemical Communications, 2016, 52, 8834-8837.	2.2	7
25	Electron bifurcation. Current Opinion in Chemical Biology, 2016, 31, 146-152.	2.8	139
26	Understanding the Broad Substrate Repertoire of Nitroreductase Based on Its Kinetic Mechanism. Journal of Biological Chemistry, 2014, 289, 15203-15214.	1.6	47
27	Ether bridge formation in loline alkaloid biosynthesis. Phytochemistry, 2014, 98, 60-68.	1.4	40
28	Superoxide Dismutases and Superoxide Reductases. Chemical Reviews, 2014, 114, 3854-3918.	23.0	717
29	Multitechnique Investigation of the pH Dependence of Phosphate Induced Transformations of ZnO Nanoparticles. Environmental Science & Technology, 2014, 48, 4757-4764.	4.6	85
30	Solid-State NMR of Flavins and Flavoproteins. Methods in Molecular Biology, 2014, 1146, 307-340.	0.4	1
31	Two Major Pre-Nucleation Species that are Conformationally Distinct and in Equilibrium of Self-Association. Crystal Growth and Design, 2013, 13, 3303-3307.	1.4	24
32	Geometric and Electronic Structures of Manganese-Substituted Iron Superoxide Dismutase. Inorganic Chemistry, 2013, 52, 3356-3367.	1.9	19
33	¹H Dynamic Nuclear Polarization Based on an Endogenous Radical. Journal of Physical Chemistry B, 2012, 116, 7055-7065.	1.2	59
34	Superoxide dismutases: Ancient enzymes and new insights. FEBS Letters, 2012, 586, 585-595.	1.3	433
35	¹⁵N Solid-State NMR as a Probe of Flavin H-Bonding. Journal of Physical Chemistry B, 2011, 115, 7788-7798.	1.2	20
36	Innentitelbild: Synthesis and Structural Characterization of Crystalline Nonacenes (Angew. Chem.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.6	0

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37	Synthesis and Structural Characterization of Crystalline Nonacenes. Angewandte Chemie - International Edition, 2011, 50, 7013-7017.	7.2	261
38	Inside Cover: Synthesis and Structural Characterization of Crystalline Nonacenes (Angew. Chem. Int.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	7.2	1
39	In situ Highâ€Field Dynamic Nuclear Polarizationâ€"Direct and Indirect Polarization of ¹³C nuclei. ChemPhysChem, 2010, 11, 999-1001.	1.0	46
40	Fluorocarbon and hydrocarbon functional group incorporation into nanoporous silica employing fluorinated and hydrocarbon surfactants as templates. Microporous and Mesoporous Materials, 2010, 129, 189-199.	2.2	8
41	15N-NMR characterization of His residues in and around the active site of FeSOD. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 275-284.	1.1	8
42	Peroxynitrite Mediates Active Site Tyrosine Nitration in Manganese Superoxide Dismutase. Evidence of a Role for the Carbonate Radical Anion. Journal of the American Chemical Society, 2010, 132, 17174-17185.	6.6	80
43	Redox Tuning over Almost 1 V in a Structurally Conserved Active Site: Lessons from Fe-Containing Superoxide Dismutase. Accounts of Chemical Research, 2008, 41, 501-510.	7.6	117
44	Hydrogen bond-free flavin redox properties: managing flavins in extreme aprotic solvents. Organic and Biomolecular Chemistry, 2008, 6, 2204.	1.5	12
45	Spectroscopic and Computational Investigation of Second-Sphere Contributions to Redox Tuning in Escherichia coli Iron Superoxide Dismutase. Inorganic Chemistry, 2008, 47, 3978-3992.	1.9	33
46	Spectroscopic and Computational Insights into Second-Sphere Amino-Acid Tuning of Substrate Analogue/Active-Site Interactions in Iron(III) Superoxide Dismutase. Inorganic Chemistry, 2008, 47, 3993-4004.	1.9	18
47	The shortest wire. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7341-7342.	3.3	2
48	How Can a Single Second Sphere Amino Acid Substitution Cause Reduction Midpoint Potential Changes of Hundreds of Millivolts?. Journal of the American Chemical Society, 2007, 129, 9927-9940.	6.6	44
49	A flavin analogue with improved solubility in organic solvents. Tetrahedron Letters, 2007, 48, 5517-5520.	0.7	12
50	The Crucial Importance of Chemistry in the Structureâ˘"Function Link:â€‰ Manipulating Hydrogen Bonding in Iron-Containing Superoxide Dismutase,. Biochemistry, 2006, 45, 1151-1161.	1.2	45
51	Evidence for Polyproline II Helical Structure in Short Polyglutamine Tracts. Journal of Molecular Biology, 2006, 361, 362-371.	2.0	49
52	15N Solid-State NMR Provides a Sensitive Probe of Oxidized Flavin Reactive Sites. Journal of the American Chemical Society, 2006, 128, 15200-15208.	6.6	15
53	Superoxide dismutases: active sites that save, but a protein that kills. Current Opinion in Chemical Biology, 2004, 8, 162-168.	2.8	283
54	Spectroscopic and Computational Studies of the Azide-Adduct of Manganese Superoxide Dismutase:Â Definitive Assignment of the Ligand Responsible for the Low-Temperature Thermochromism. Journal of the American Chemical Society, 2004, 126, 12477-12491.	6.6	60

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55	Proton-coupled electron transfer in Fe-superoxide dismutase and Mn-superoxide dismutase. Journal of Inorganic Biochemistry, 2003, 93, 71-83.	1.5	75
56	Flavin reduction potential tuning by substitution and bending. Computational and Theoretical Chemistry, 2003, 623, 185-195.	1.5	51
57	NMR Shieldings and Electron Correlation Reveal Remarkable Behavior on the Part of the Flavin N5 Reactive Center. Journal of Physical Chemistry B, 2003, 107, 854-863.	1.2	15
58	Spectroscopic and Computational Study of a Non-Heme Iron {Feâˆ'NO}7 System:â€‰ Exploring the Geometric and Electronic Structures of the Nitrosyl Adduct of Iron Superoxide Dismutase. Journal of the American Chemical Society, 2003, 125, 8348-8363.	6.6	61
59	Structures of Nitroreductase in Three States. Journal of Biological Chemistry, 2002, 277, 11513-11520.	1.6	130
60	Flavin Thermodynamics Explain the Oxygen Insensitivity of Enteric Nitroreductasesâ€. Biochemistry, 2002, 41, 14197-14205.	1.2	78
61	Comparison and Contrasts between the Active Site PKs of Mn-Superoxide Dismutase and Those of Fe-Superoxide Dismutase. Journal of the American Chemical Society, 2002, 124, 15064-15075.	6.6	70
62	Second-Sphere Contributions to Substrate-Analogue Binding in Iron(III) Superoxide Dismutase. Journal of the American Chemical Society, 2002, 124, 3769-3774.	6.6	41
63	Spectroscopic and Computational Studies on Iron and Manganese Superoxide Dismutases:â€‰ Nature of the Chemical Events Associated with Active-Site pKs. Journal of the American Chemical Society, 2002, 124, 10833-10845.	6.6	54
64	Hydrogen-Bond-Mediated Tuning of the Redox Potential of the Non-Heme Fe Site of Superoxide Dismutase. Journal of the American Chemical Society, 2002, 124, 3482-3483.	6.6	63
65	Two-electron reduction of quinones by Enterobacter cloacae NAD(P)H:nitroreductase: quantitative structure-activity relationships. Archives of Biochemistry and Biophysics, 2002, 403, 249-258.	1.4	32
66	Quantitative Structureâ€"Activity Relationships in Two-Electron Reduction of Nitroaromatic Compounds by Enterobacter cloacae NAD(P)H:Nitroreductase. Archives of Biochemistry and Biophysics, 2001, 385, 170-178.	1.4	56
67	Novel Insights into the Basis forEscherichia coliSuperoxide Dismutase's Metal Ion Specificity from Mn-Substituted FeSOD and Its Very HighEmâ€. Biochemistry, 2001, 40, 13079-13087.	1.2	120
68	Hostâˆ'Guest Study of Left-Handed Polyproline II Helix Formationâ€. Biochemistry, 2001, 40, 14376-14383.	1.2	210
69	Retro-Nitroreductase, a Putative Evolutionary Precursor toEnterobacter cloacaeStrain 96-3 Nitroreductase. Antioxidants and Redox Signaling, 2001, 3, 747-755.	2.5	4
70	Mapping the effects of metal ion reduction and substrate analog binding to Fe-superoxide dismutase by NMR spectroscopy. Magnetic Resonance in Chemistry, 2000, 38, 536-542.	1.1	20
71	Mutational and spectroscopic studies of the significance of the active site glutamine to metal ion specificity in superoxide dismutase. Journal of Inorganic Biochemistry, 2000, 80, 247-256.	1.5	60
72	Amino acid-specific isotopic labeling and active site NMR studies of iron(II)- and iron(III)-superoxide dismutase from Escherichia coli. Journal of Biomolecular NMR, 2000, 17, 311-322.	1.6	8

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73	Assignment of the backbone resonances of oxidized Fe-superoxide dismutase, a 42 kDa paramagnet-containing enzyme. Journal of Biomolecular NMR, 1999, 14, 293-294.	1.6	9
74	Parallel Polarization EPR Characterization of the Mn(III) Center of Oxidized Manganese Superoxide Dismutase. Journal of the American Chemical Society, 1999, 121, 4714-4715.	6.6	84
75	Steady-state kinetic mechanism, stereospecificity, substrate and inhibitor specificity of Enterobacter cloacae nitroreductase. BBA - Proteins and Proteomics, 1998, 1387, 395-405.	2.1	116
76	Spectroscopic Comparisons of the pH Dependencies of Fe-Substituted (Mn)Superoxide Dismutase and Fe-Superoxide Dismutase. Biochemistry, 1998, 37, 5518-5527.	1.2	85
77	Overexpression, Isotopic Labeling, and Spectral Characterization ofEnterobacter cloacaeNitroreductase. Protein Expression and Purification, 1998, 13, 53-60.	0.6	18
78	Selective 15N labeling and direct observation by NMR of the active-site glutamine of Fe-containing superoxide dismutase. Journal of Biomolecular NMR, 1997, 9, 201-206.	1.6	13
79	Effect of Third Strand Orientation on Oligonucleotide Intramolecular Triplex Stability. Journal of the American Chemical Society, 1996, 118, 8979-8980.	6.6	3
80	Formation of the S2 state and structure of the Mn complex in photosystem II lacking the extrinsic 33 kilodalton polypeptide. Photosynthesis Research, 1987, 12, 205-218.	1.6	30