Mario Rivera

List of Publications by Year
in descending order

53 papers	1,934 citations	218677 26 h-index	254184 43 g-index
55 all docs	55 docs citations	55 times ranked	1315 citing authors

#	Article	IF	Citations
1	Bacterioferritin: Structure, Dynamics, and Proteinâ€"Protein Interactions at Play in Iron Storage and Mobilization. Accounts of Chemical Research, 2017, 50, 331-340.	15.6	118
2	Oxidation of Heme to Î²- and Î´-Biliverdin byPseudomonas aeruginosaHeme Oxygenase as a Consequence of an Unusual Seating of the Heme. Journal of the American Chemical Society, 2002, 124, 14879-14892.	13.7	97
3	The Heme Oxygenase(s)-Phytochrome System of Pseudomonas aeruginosa. Journal of Biological Chemistry, 2004, 279, 45791-45802.	3.4	85
4	Models of the Low-Spin Iron(III) Hydroperoxide Intermediate of Heme Oxygenase:Â Magnetic Resonance Evidence for Thermodynamic Stabilization of the dxyElectronic State at Ambient Temperatures. Journal of the American Chemical Society, 2002, 124, 6077-6089.	13.7	84
5	The Reduction Potential of Cytochromeb5Is Modulated by Its Exposed Heme Edgeâ€. Biochemistry, 1998, 37, 1485-1494.	2.5	83
6	Gene synthesis, bacterial expression and proton NMR spectroscopic studies of the rat outer mitochondrial membrane cytochrome b5. Biochemistry, 1992, 31, 12233-12240.	2.5	80
7	13C NMR Spectroscopic and X-ray Crystallographic Study of the Role Played by Mitochondrial Cytochromeb5Heme Propionates in the Electrostatic Binding to Cytochromecâ€,â€¡. Biochemistry, 1996, 35, 16378-16390.	2.5	80
8	The Structure of the BfrBâ€"Bfd Complex Reveals Proteinâ€"Protein Interactions Enabling Iron Release from Bacterioferritin. Journal of the American Chemical Society, 2012, 134, 13470-13481.	13.7	71
9	Structural Studies of Bacterioferritin B from <i>Pseudomonas aeruginosa</i> Suggest a Gating Mechanism for Iron Uptake via the Ferroxidase Center,. Biochemistry, 2010, 49, 1160-1175.	2.5	66
10	Heme oxygenase, steering dioxygen activation toward heme hydroxylation. Journal of Inorganic Biochemistry, 2005, 99, 337-354.	3.5	63
11	Binding of <i>Pseudomonas aeruginosa</i> Apobacterioferritin-Associated Ferredoxin to Bacterioferritin B Promotes Heme Mediation of Electron Delivery and Mobilization of Core Mineral Iron. Biochemistry, 2009, 48, 7420-7431.	2.5	63
12	Coupled Oxidation vs Heme Oxygenation:Â Insights from Axial Ligand Mutants of Mitochondrial Cytochromeb5. Journal of the American Chemical Society, 2003, 125, 4103-4110.	13.7	59
13	The Hydroxide Complex of Pseudomonas aeruginosa Heme Oxygenase as a Model of the Low-Spin Iron(III) Hydroperoxide Intermediate in Heme Catabolism:â€‰ 13C NMR Spectroscopic Studies Suggest the Active Participation of the Heme in Macrocycle Hydroxylation. Journal of the American Chemical Society, 2003, 125, 11842-11852.	13.7	58
14	Probing the Differences between Rat Liver Outer Mitochondrial Membrane Cytochromeb5and Microsomal Cytochromesb5â€. Biochemistry, 2001, 40, 9469-9483.	2.5	57
15	Conversion of Mitochondrial Cytochromeb5into A Species Capable of Performing the Efficient Coupled Oxidation of Hemeâ€. Biochemistry, 1998, 37, 13082-13090.	2.5	53
16	Azide-Inhibited Bacterial Heme Oxygenases Exhibit an S = 3/2 (dxz,dyz)3(dxy)1(dz2)1 Spin State:â€‰ Mechanistic Implications for Heme Oxidation. Journal of the American Chemical Society, 2005, 127, 9794-9807.	13.7	52
17	Recent developments in the 13 C NMR spectroscopic analysis of paramagnetic hemes and heme proteins. Analytical and Bioanalytical Chemistry, 2004, 378, 1464-1483.	3.7	47
18	Two Distinct Ferritin-like Molecules in <i>Pseudomonas aeruginosa</i>: The Product of the <i>bfrA</i> Gene Is a Bacterial Ferritin (FtnA) and Not a Bacterioferritin (Bfr). Biochemistry, 2011, 50, 5236-5248.	2.5	44

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19	Heme Uptake and Metabolism in Bacteria. Metal Ions in Life Sciences, 2013, 12, 279-332.	2.8	42
20	Mixed Regioselectivity in the Arg-177 Mutants ofCorynebacterium diphtheriaeHeme Oxygenase as a Consequence of in-Plane Heme Disorderâ€. Biochemistry, 2004, 43, 5222-5238.	2.5	38
21	Biochemical and Structural Characterization of Pseudomonas aeruginosa Bfd and FPR:â€‰ Ferredoxin NADP+ Reductase and Not Ferredoxin Is the Redox Partner of Heme Oxygenase under Iron-Starvation Conditions,. Biochemistry, 2007, 46, 12198-12211.	2.5	38
22	Inhibiting the BfrB:Bfd interaction in Pseudomonas aeruginosa causes irreversible iron accumulation in bacterioferritin and iron deficiency in the bacterial cytosol. Metallomics, 2017, 9, 646-659.	2.4	37
23	Oxygen Activation by Axial Ligand Mutants of Mitochondrial Cytochrome b5:â€‰ Oxidation of Heme to Verdoheme and Biliverdin. Journal of the American Chemical Society, 2000, 122, 7618-7619.	13.7	34
24	Modulation of redox potential in electron transfer proteins: Effects of complex formation on the active site microenvironment of cytochrome b5. Faraday Discussions, 2000, 116, 221-234.	3.2	32
25	Toward Engineering the Stability and Hemin-Binding Properties of Microsomal Cytochromesb5into Rat Outer Mitochondrial Membrane Cytochromeb5:Â Examining the Influence of Residues 25 and 71â€. Biochemistry, 2002, 41, 11566-11581.	2.5	32
26	Malleilactone Is a Burkholderia pseudomallei Virulence Factor Regulated by Antibiotics and Quorum Sensing. Journal of Bacteriology, 2018, 200, .	2.2	32
27	Characterization of the Bacterioferritin/Bacterioferritin Associated Ferredoxin Proteinâ€"Protein Interaction in Solution and Determination of Binding Energy Hot Spots. Biochemistry, 2015, 54, 6162-6175.	2.5	28
28	Protein Dynamics and Ion Traffic in Bacterioferritin. Biochemistry, 2012, 51, 9900-9910.	2.5	27
29	The Hydrogen-Bonding Network in Heme Oxygenase Also Functions as a Modulator of Enzyme Dynamics:â€‰ Chaotic Motions upon Disrupting the H-Bond Network in Heme Oxygenase from <i>Pseudomonas </i><i>aeruginosa</i>. Journal of the American Chemical Society, 2007, 129, 11730-11742.	13.7	26
30	Small Molecule Inhibitors of the BfrBâ€"Bfd Interaction DecreasePseudomonas aeruginosaFitness and Potentiate Fluoroquinolone Activity. Journal of the American Chemical Society, 2019, 141, 8171-8184.	13.7	24
31	Inhibiting Iron Mobilization from Bacterioferritin in <i>Pseudomonas aeruginosa</i> Impairs Biofilm Formation Irrespective of Environmental Iron Availability. ACS Infectious Diseases, 2020, 6, 447-458.	3.8	24
32	Hemin Is Kinetically Trapped in Cytochrome b5 from Rat Outer Mitochondrial Membrane. Biochemical and Biophysical Research Communications, 2000, 273, 467-472.	2.1	23
33	Backbone NMR Assignments and H/D Exchange Studies on the Ferric Azide- and Cyanide-Inhibited Forms of Pseudomonas aeruginosa Heme Oxygenase,. Biochemistry, 2006, 45, 4578-4592.	2.5	21
34	The Ferrous Verdohemeâ^'Heme Oxygenase Complex is Six-Coordinate and Low-Spin. Journal of the American Chemical Society, 2005, 127, 17582-17583.	13.7	20
35	Heme Oxidation in a Chimeric Protein of the Î±-SelectiveNeisseriae meningitidisHeme Oxygenase with the Distal Helix of the Î´-SelectivePseudomonas aeruginosaâ€. Biochemistry, 2005, 44, 13713-13723.	2.5	19
36	Concerted Motions Networking Pores and Distant Ferroxidase Centers Enable Bacterioferritin Function and Iron Traffic. Biochemistry, 2015, 54, 1611-1627.	2.5	18

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37	X-ray Crystallographic and Solution State Nuclear Magnetic Resonance Spectroscopic Investigations of NADP+ Binding to Ferredoxin NADP Reductase from Pseudomonas aeruginosa,. Biochemistry, 2008, 47, 8080-8093.	2.5	17
38	Synthesis of [1,2-13C]- and [2,3-13C]-labeled Î´-aminolevulinic acid. Journal of Labelled Compounds and Radiopharmaceuticals, 1997, 39, 669-675.	1.0	16
39	Small Molecule Inhibitors of the Bacterioferritin (BfrB)â€"Ferredoxin (Bfd) Complex Kill Biofilm-Embedded <i>Pseudomonas aeruginosa</i> Cells. ACS Infectious Diseases, 2021, 7, 123-140.	3.8	16
40	13C NMR Spectroscopy of Core Heme Carbons as a Simple Tool to Elucidate the Coordination State of Ferric High-Spin Heme Proteins. Inorganic Chemistry, 2006, 45, 8876-8881.	4.0	14
41	An Electrochemical Study of the Factors Responsible for Modulating the Reduction Potential of Putidaredoxin. Journal of Biological Inorganic Chemistry, 1999, 4, 664-674.	2.6	13
42	Local packing modulates diversity of iron pathways and cooperative behavior in eukaryotic and prokaryotic ferritins. Journal of Chemical Physics, 2014, 140, 115104.	3.0	13
43	An1Hâ€"13Câ€"13C-Edited1H NMR Experiment for Making Resonance Assignments in the Active Site of Heme Proteins. Journal of Magnetic Resonance, 1998, 130, 76-81.	2.1	11
44	Pseudomonas aeruginosa Bacterioferritin Is Assembled from FtnA and BfrB Subunits with the Relative Proportions Dependent on the Environmental Oxygen Availability. Biomolecules, 2022, 12, 366.	4.0	10
45	Efficient and selective isotopic labeling of hemes to facilitate the study of multiheme proteins. BioTechniques, 2012, 52, 1-7.	1.8	9
46	Heme-iron utilization by Leptospira interrogans requires a heme oxygenase and a plastidic-type ferredoxin-NADP+ reductase. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 3208-3217.	2.4	9
47	Bfd, a New Class of [2Fe-2S] Protein That Functions in Bacterial Iron Homeostasis, Requires a Structural Anion Binding Site. Biochemistry, 2018, 57, 5533-5543.	2.5	8
48	Mobilization of Iron Stored in Bacterioferritin Is Required for Metabolic Homeostasis in Pseudomonas aeruginosa. Pathogens, 2020, 9, 980.	2.8	8
49	Bacterioferritin: Structure Function and Proteinâ€"Protein Interactions. Handbook of Porphyrin Science, 2013, , 135-178.	0.8	6
50	Structural and mutational analyses of the Leptospira interrogans virulence-related heme oxygenase provide insights into its catalytic mechanism. PLoS ONE, 2017, 12, e0182535.	2.5	5
51	The dual role of heme as cofactor and substrate in the biosynthesis of carbon monoxide. Metal Ions in Life Sciences, 2009, 6, 241-93.	2.8	3
52	4,7-Diaminoisoindoline-1,3-dione. Organic Preparations and Procedures International, 2018, 50, 372-374.	1.3	1
53	8 The Dual Role of Heme as Cofactor and Substrate in the Biosynthesis of Carbon Monoxide. , 2015, , 241-294.		0