

John S Olson

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

161
papers

11,459
citations

58
h-index

103
g-index

162
ext. papers

11,992
ext. citations

6.5
avg, IF

5.81
L-index

#	Paper	IF	Citations
161	Mechanisms of nitric oxide reactions with Globins using mammalian myoglobin as a model system. <i>Journal of Inorganic Biochemistry</i> , 2022 , 111839	4.2	2
160	Kinetic mechanisms for O binding to myoglobins and hemoglobins. <i>Molecular Aspects of Medicine</i> , 2021 , 101024	16.7	1
159	The Interplay between Molten Globules and Heme Disassociation Defines Human Hemoglobin Disassembly. <i>Biophysical Journal</i> , 2020 , 118, 1381-1400	2.9	6
158	Lessons Learned from 50 Years of Hemoglobin Research: Unstirred and Cell-Free Layers, Electrostatics, Baseball Gloves, and Molten Globules. <i>Antioxidants and Redox Signaling</i> , 2020 , 32, 228-246	8.4	11
157	Substitutions in the β subunits of sickle-cell hemoglobin improve oxidative stability and increase the delay time of sickle-cell fiber formation. <i>Journal of Biological Chemistry</i> , 2019 , 294, 4145-4159	5.4	8
156	Current Challenges in the Development of Acellular Hemoglobin Oxygen Carriers by Protein Engineering. <i>Shock</i> , 2019 , 52, 28-40	3.4	14
155	Energetics underlying hemin extraction from human hemoglobin by. <i>Journal of Biological Chemistry</i> , 2018 , 293, 6942-6957	5.4	14
154	Mechanism of Human Apohemoglobin Unfolding. <i>Biochemistry</i> , 2017 , 56, 1444-1459	3.2	14
153	Hemoglobin Kirklareli (H58L), a New Variant Associated with Iron Deficiency and Increased CO Binding. <i>Journal of Biological Chemistry</i> , 2017 , 292, 2542-2555	5.4	10
152	Engineering oxidative stability in human hemoglobin based on the Hb providence (K82D) mutation and genetic cross-linking. <i>Biochemical Journal</i> , 2017 , 474, 4171-4192	3.8	10
151	The PRE-Derived NMR Model of the 38.8-kDa Tri-Domain IsdH Protein from <i>Staphylococcus aureus</i> Suggests That It Adaptively Recognizes Human Hemoglobin. <i>Journal of Molecular Biology</i> , 2016 , 428, 1107-1129	6.5	18
150	Role of Heme Pocket Water in Allosteric Regulation of Ligand Reactivity in Human Hemoglobin. <i>Biochemistry</i> , 2016 , 55, 4005-17	3.2	6
149	Apoglobin Stability Is the Major Factor Governing both Cell-free and in Vivo Expression of Holomyoglobin. <i>Journal of Biological Chemistry</i> , 2015 , 290, 23479-95	5.4	19
148	Free hemoglobin increases von Willebrand factor-mediated platelet adhesion in vitro: implications for circulatory devices. <i>Blood</i> , 2015 , 126, 2338-41	2.2	60
147	Redox properties of human hemoglobin in complex with fractionated dimeric and polymeric human haptoglobin. <i>Free Radical Biology and Medicine</i> , 2014 , 69, 265-77	7.8	47
146	Post-translational transformation of methionine to aspartate is catalyzed by heme iron and driven by peroxide: a novel subunit-specific mechanism in hemoglobin. <i>Journal of Biological Chemistry</i> , 2014 , 289, 22342-57	5.4	23
145	Hemozoin-generated vapor nanobubbles for transdermal reagent- and needle-free detection of malaria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 900-5	11.5	53

144	Quentin Howieson Gibson. 9 December 1918 – 6 March 2011. <i>Biographical Memoirs of Fellows of the Royal Society</i> , 2014 , 60, 169-210	0.1	2
143	Real-time tracking of CO migration and binding in the α and β subunits of human hemoglobin via 150-ps time-resolved Laue crystallography. <i>Chemical Physics</i> , 2013 , 422, 98-106	2.3	20
142	An engineered heme-copper center in myoglobin: CO migration and binding. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2013 , 1834, 1824-31	4	1
141	Hydrophobic effect drives oxygen uptake in myoglobin via histidine E7. <i>Journal of Biological Chemistry</i> , 2013 , 288, 6754-62	5.4	26
140	Development of recombinant hemoglobin-based oxygen carriers. <i>Antioxidants and Redox Signaling</i> , 2013 , 18, 2314-28	8.4	81
139	The crystal structure and RNA-binding of an orthomyxovirus nucleoprotein. <i>PLoS Pathogens</i> , 2013 , 9, e1003624	7.6	32
138	Hemoglobin stabilizing protein (AHSP) markedly decreases the redox potential and reactivity of β subunits of human HbA with hydrogen peroxide. <i>Journal of Biological Chemistry</i> , 2013 , 288, 4288-98	5.4	26
137	Hemoglobin-stabilizing protein (AHSP) perturbs the proximal heme pocket of oxy-hemoglobin and weakens the iron-oxygen bond. <i>Journal of Biological Chemistry</i> , 2013 , 288, 19986-20001	5.4	11
136	A "sliding scale rule" for selectivity among NO, CO, and O ₂ by heme protein sensors. <i>Biochemistry</i> , 2012 , 51, 172-86	3.2	81
135	Determination of ligand pathways in globins: apolar tunnels versus polar gates. <i>Journal of Biological Chemistry</i> , 2012 , 287, 33163-78	5.4	33
134	Familial secondary erythrocytosis due to increased oxygen affinity is caused by destabilization of the T state of hemoglobin Brigham (α Pro100Leu). <i>Protein Science</i> , 2012 , 21, 1444-55	6.3	2
133	How do heme-protein sensors exclude oxygen? Lessons learned from cytochrome c _H Nostoc punctiforme heme nitric oxide/oxygen-binding domain, and soluble guanylyl cyclase. <i>Antioxidants and Redox Signaling</i> , 2012 , 17, 1246-63	8.4	51
132	Insights into hemoglobin assembly through in vivo mutagenesis of Hemoglobin stabilizing protein. <i>Journal of Biological Chemistry</i> , 2012 , 287, 11325-37	5.4	18
131	Differential function of lip residues in the mechanism and biology of an anthrax hemophore. <i>PLoS Pathogens</i> , 2012 , 8, e1002559	7.6	35
130	Kinetics of β globin binding to Hemoglobin stabilizing protein (AHSP) indicate preferential stabilization of hemichrome folding intermediate. <i>Journal of Biological Chemistry</i> , 2012 , 287, 11338-50	5.4	20
129	Short laser pulse-induced irreversible photothermal effects in red blood cells. <i>Lasers in Surgery and Medicine</i> , 2011 , 43, 249-60	3.6	10
128	Modulating distal cavities in the α and β subunits of human HbA reveals the primary ligand migration pathway. <i>Biochemistry</i> , 2011 , 50, 7361-74	3.2	36
127	Ligand migration in the apolar tunnel of <i>Cerebratulus lacteus</i> mini-hemoglobin. <i>Journal of Biological Chemistry</i> , 2011 , 286, 5347-58	5.4	20

126	The five near-iron transporter (NEAT) domain anthrax hemophore, IsdX2, scavenges heme from hemoglobin and transfers heme to the surface protein IsdC. <i>Journal of Biological Chemistry</i> , 2011 , 286, 33652-60	5.4	41
125	Blocking the gate to ligand entry in human hemoglobin. <i>Journal of Biological Chemistry</i> , 2011 , 286, 10515-29	5.4	37
124	A hemoglobin variant associated with neonatal cyanosis and anemia. <i>New England Journal of Medicine</i> , 2011 , 364, 1837-43	59.2	21
123	A Bacillus anthracis S-layer homology protein that binds heme and mediates heme delivery to IsdC. <i>Journal of Bacteriology</i> , 2010 , 192, 3503-11	3.5	58
122	Distal histidine stabilizes bound O ₂ and acts as a gate for ligand entry in both subunits of adult human hemoglobin. <i>Journal of Biological Chemistry</i> , 2010 , 285, 8840-54	5.4	85
121	The role of alpha-hemoglobin stabilizing protein in redox chemistry, denaturation, and hemoglobin assembly. <i>Antioxidants and Redox Signaling</i> , 2010 , 12, 219-31	8.4	32
120	Alkyl isocyanides serve as transition state analogues for ligand entry and exit in myoglobin. <i>Biochemistry</i> , 2010 , 49, 4987-97	3.2	21
119	The stretching frequencies of bound alkyl isocyanides indicate two distinct ligand orientations within the distal pocket of myoglobin. <i>Biochemistry</i> , 2010 , 49, 4968-76	3.2	9
118	Is Nostoc H-NOX a NO sensor or redox switch?. <i>Biochemistry</i> , 2010 , 49, 6587-99	3.2	38
117	Straight-chain alkyl isocyanides open the distal histidine gate in crystal structures of myoglobin. <i>Biochemistry</i> , 2010 , 49, 4977-86	3.2	18
116	Role of heme in the unfolding and assembly of myoglobin. <i>Biochemistry</i> , 2010 , 49, 6052-63	3.2	44
115	New light on NO bonding in Fe(III) heme proteins from resonance Raman spectroscopy and DFT modeling. <i>Journal of the American Chemical Society</i> , 2010 , 132, 4614-25	16.4	86
114	Kinetic spectroscopy of heme hydration and ligand binding in myoglobin and isolated hemoglobin chains: an optical window into heme pocket water dynamics. <i>Physical Chemistry Chemical Physics</i> , 2010 , 12, 10270-8	3.6	20
113	The structure and NO binding properties of the nitrophorin-like heme-binding protein from Arabidopsis thaliana gene locus At1g79260.1. <i>Proteins: Structure, Function and Bioinformatics</i> , 2010 , 78, 917-31	4.2	41
112	Heme transfer to the bacterial cell envelope occurs via a secreted hemophore in the Gram-positive pathogen Bacillus anthracis. <i>Journal of Biological Chemistry</i> , 2009 , 284, 32138-46	5.4	56
111	Review: correlations between oxygen affinity and sequence classifications of plant hemoglobins. <i>Biopolymers</i> , 2009 , 91, 1083-96	2.2	107
110	Structural analysis of fish versus mammalian hemoglobins: effect of the heme pocket environment on autooxidation and hemin loss. <i>Proteins: Structure, Function and Bioinformatics</i> , 2009 , 75, 217-30	4.2	66
109	Coexpression of human alpha- and circularly permuted beta-globins yields a hemoglobin with normal R state but modified T state properties. <i>Biochemistry</i> , 2009 , 48, 5456-65	3.2	2

108	Optical detection of disordered water within a protein cavity. <i>Journal of the American Chemical Society</i> , 2009 , 131, 12265-72	16.4	18
107	Analysis of human alpha globin gene mutations that impair binding to the alpha hemoglobin stabilizing protein. <i>Blood</i> , 2009 , 113, 5961-9	2.2	33
106	Interfacial and distal-heme pocket mutations exhibit additive effects on the structure and function of hemoglobin. <i>Biochemistry</i> , 2008 , 47, 10551-63	3.2	16
105	Conserved residues modulate copper release in human copper chaperone Atox1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 11158-63	11.5	40
104	Pathway for heme uptake from human methemoglobin by the iron-regulated surface determinants system of <i>Staphylococcus aureus</i> . <i>Journal of Biological Chemistry</i> , 2008 , 283, 18450-60	5.4	98
103	The apolar channel in <i>Cerebratulus lacteus</i> hemoglobin is the route for O ₂ entry and exit. <i>Journal of Biological Chemistry</i> , 2008 , 283, 35689-702	5.4	31
102	Mammalian Myoglobin as a Model for Understanding Ligand Affinities and Discrimination in Heme Proteins 2008 , 3-17		4
101	Enhancing stability and expression of recombinant human hemoglobin in <i>E. coli</i> : Progress in the development of a recombinant HBOC source. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008 , 1784, 1471-9	4	56
100	From O ₂ Diffusion into Red Blood Cells to Ligand Pathways in Globins 2008 , 161-181		
99	Passively released heme from hemoglobin and myoglobin is a potential source of nutrient iron for <i>Bordetella bronchiseptica</i> . <i>Infection and Immunity</i> , 2007 , 75, 4857-66	3.7	17
98	Bis-methionine ligation to heme iron in the streptococcal cell surface protein Shp facilitates rapid heme transfer to HtsA of the HtsABC transporter. <i>Journal of Biological Chemistry</i> , 2007 , 282, 31380-8	5.4	36
97	Transient ligand docking sites in <i>Cerebratulus lacteus</i> mini-hemoglobin. <i>Gene</i> , 2007 , 398, 208-23	3.8	11
96	Bis-methionyl coordination in the crystal structure of the heme-binding domain of the streptococcal cell surface protein Shp. <i>Journal of Molecular Biology</i> , 2007 , 374, 374-83	6.5	48
95	Water and ligand entry in myoglobin: assessing the speed and extent of heme pocket hydration after CO photodissociation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 1254-9	11.5	55
94	Biochemical fates of alpha hemoglobin bound to alpha hemoglobin-stabilizing protein AHSP. <i>Journal of Biological Chemistry</i> , 2006 , 281, 32611-8	5.4	34
93	The mechanism of direct heme transfer from the streptococcal cell surface protein Shp to HtsA of the HtsABC transporter. <i>Journal of Biological Chemistry</i> , 2006 , 281, 20761-20771	5.4	75
92	Designing Recombinant Hemoglobin for Use as a Blood Substitute 2006 , 354-374		8
91	Hemoglobins dioxygenate nitric oxide with high fidelity. <i>Journal of Inorganic Biochemistry</i> , 2006 , 100, 542-50	4.2	106

90	The origin of stark splitting in the initial photoproduct state of MbCO. <i>Journal of the American Chemical Society</i> , 2005 , 127, 40-1	16.4	83
89	Temperature-dependent studies of NO recombination to heme and heme proteins. <i>Journal of the American Chemical Society</i> , 2005 , 127, 16921-34	16.4	82
88	Biophysical and kinetic characterization of HemAT, an aerotaxis receptor from <i>Bacillus subtilis</i> . <i>Biophysical Journal</i> , 2005 , 88, 2801-14	2.9	59
87	Thermoglobin, oxygen-avid hemoglobin in a bacterial hyperthermophile. <i>Journal of Biological Chemistry</i> , 2005 , 280, 36754-61	5.4	17
86	The position 68(E11) side chain in myoglobin regulates ligand capture, bond formation with heme iron, and internal movement into the xenon cavities. <i>Journal of Biological Chemistry</i> , 2005 , 280, 38740-55	5.4	37
85	Dynamics of carbon monoxide binding to CooA. <i>Journal of Biological Chemistry</i> , 2004 , 279, 21096-108	5.4	55
84	Thr-E11 regulates O ₂ affinity in <i>Cerebratulus lacteus</i> mini-hemoglobin. <i>Journal of Biological Chemistry</i> , 2004 , 279, 33662-72	5.4	36
83	Crystal structure of the dioxygen-bound heme oxygenase from <i>Corynebacterium diphtheriae</i> : implications for heme oxygenase function. <i>Journal of Biological Chemistry</i> , 2004 , 279, 21055-61	5.4	79
82	No scavenging and the hypertensive effect of hemoglobin-based blood substitutes. <i>Free Radical Biology and Medicine</i> , 2004 , 36, 685-97	7.8	253
81	Tyrosine B10 inhibits stabilization of bound carbon monoxide and oxygen in soybean leghemoglobin. <i>Biochemistry</i> , 2004 , 43, 6241-52	3.2	28
80	Picosecond time-resolved X-ray crystallography: probing protein function in real time. <i>Journal of Structural Biology</i> , 2004 , 147, 235-46	3.4	152
79	Measurement of rate constants for reactions of O ₂ , CO, and NO with hemoglobin. <i>Methods in Molecular Medicine</i> , 2003 , 82, 65-91		23
78	FeNO structure in distal pocket mutants of myoglobin based on resonance Raman spectroscopy. <i>Biochemistry</i> , 2003 , 42, 4896-903	3.2	71
77	Watching a protein as it functions with 150-ps time-resolved x-ray crystallography. <i>Science</i> , 2003 , 300, 1944-7	33.3	674
76	Structural dynamics of myoglobin: ligand migration and binding in valine 68 mutants. <i>Journal of Biological Chemistry</i> , 2003 , 278, 42532-44	5.4	66
75	Myoglobin as a model system for designing heme protein based blood substitutes. <i>Biophysical Chemistry</i> , 2002 , 98, 127-48	3.5	113
74	Controlling ligand binding in myoglobin by mutagenesis. <i>Journal of Biological Chemistry</i> , 2002 , 277, 7509-19	5.4	92
73	Mapping the pathways for O ₂ entry into and exit from myoglobin. <i>Journal of Biological Chemistry</i> , 2001 , 276, 5177-88	5.4	304

72	Waterproofing the heme pocket. Role of proximal amino acid side chains in preventing heme loss from myoglobin. <i>Journal of Biological Chemistry</i> , 2001 , 276, 9093-100	5.4	72
71	Crystal structure of a nonsymbiotic plant hemoglobin. <i>Structure</i> , 2000 , 8, 1005-14	5.2	148
70	Nitric-oxide dioxygenase activity and function of flavohemoglobins. sensitivity to nitric oxide and carbon monoxide inhibition. <i>Journal of Biological Chemistry</i> , 2000 , 275, 31581-7	5.4	124
69	Lamprey hemoglobin. Structural basis of the bohr effect. <i>Journal of Biological Chemistry</i> , 2000 , 275, 13517-28	5.4	33
68	The Stabilities of Mammalian Apomyoglobins Vary over a 600-Fold Range and Can Be Enhanced by Comparative Mutagenesis. <i>Journal of Biological Chemistry</i> , 2000 , 275, 27129-27136	5.4	36
67	Reactions of sperm whale myoglobin with hydrogen peroxide. Effects of distal pocket mutations on the formation and stability of the ferryl intermediate. <i>Journal of Biological Chemistry</i> , 1999 , 274, 2029-37	5.4	74
66	Bound CO Is A Molecular Probe of Electrostatic Potential in the Distal Pocket of Myoglobin. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 8817-8829	3.4	235
65	A cyanobacterial hemoglobin with unusual ligand binding kinetics and stability properties. <i>Biochemistry</i> , 1999 , 38, 2117-26	3.2	52
64	Resonance Raman Investigation of Fe ^{IV} O Structure of Nitrosylheme in Myoglobin and Its Mutants. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 7044-7054	3.4	80
63	Rate of reaction with nitric oxide determines the hypertensive effect of cell-free hemoglobin. <i>Nature Biotechnology</i> , 1998 , 16, 672-6	44.5	383
62	Nitric oxide myoglobin: Crystal structure and analysis of ligand geometry. <i>Proteins: Structure, Function and Bioinformatics</i> , 1998 , 30, 352-356	4.2	107
61	Time-resolved resonance Raman study of intermediates generated after photodissociation of wild-type and mutant co-myoglobins. <i>Chemical Physics</i> , 1998 , 228, 323-336	2.3	22
60	Stabilizing bound O ₂ in myoglobin by valine68 (E11) to asparagine substitution. <i>Biochemistry</i> , 1998 , 37, 15896-907	3.2	31
59	Time-Resolved UV Resonance Raman Detection of a Transient Open Form of the Ligand Pathway in Tyr64(E7) Myoglobin. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 3624-3630	3.4	8
58	Imidazole is a sensitive probe of steric hindrance in the distal pockets of oxygen-binding heme proteins. <i>Biochemistry</i> , 1998 , 37, 12452-7	3.2	38
57	Disruption of the heme iron-proximal histidine bond requires unfolding of deoxymyoglobin. <i>Biochemistry</i> , 1998 , 37, 7047-56	3.2	40
56	Evidence for Hydrogen Bonding Effects in the Iron Ligand Vibrations of Carbonmonoxy Myoglobin. <i>Journal of the American Chemical Society</i> , 1998 , 120, 2670-2671	16.4	54
55	Solution and crystal structures of a sperm whale myoglobin triple mutant that mimics the sulfide-binding hemoglobin from <i>Lucina pectinata</i> . <i>Journal of Biological Chemistry</i> , 1998 , 273, 9517-26	5.4	39

54	Rate constants for O ₂ and CO binding to the alpha and beta subunits within the R and T states of human hemoglobin. <i>Journal of Biological Chemistry</i> , 1998 , 273, 23150-9	5.4	66
53	The oxygen and carbon monoxide reactions of heme oxygenase. <i>Journal of Biological Chemistry</i> , 1998 , 273, 945-9	5.4	64
52	Nitric oxide myoglobin: Crystal structure and analysis of ligand geometry 1998 , 30, 352		1
51	Quaternary structure regulates heme dissociation from human hemoglobin. <i>Journal of Biological Chemistry</i> , 1997 , 272, 17385-9	5.4	106
50	Protein engineering strategies for designing more stable hemoglobin-based blood substitutes. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 1997 , 25, 227-41		37
49	Characterization of recombinant soybean leghemoglobin a and apolar distal histidine mutants. <i>Journal of Molecular Biology</i> , 1997 , 266, 1032-42	6.5	122
48	Perturbation of the FeO ₂ Bond by Nearby Residues in Heme Pocket: Observation of Fe-O ₂ Raman Bands for Oxy-myoglobin Mutants. <i>Journal of the American Chemical Society</i> , 1996 , 118, 7845-7846 ^{16.4}		76
47	Mechanism of hydrogen cyanide binding to myoglobin. <i>Biochemistry</i> , 1996 , 35, 7107-13	3.2	58
46	The association rate constant for heme binding to globin is independent of protein structure. <i>Biochemistry</i> , 1996 , 35, 11293-9	3.2	206
45	Structural factors governing heme dissociation from metmyoglobin. <i>Biochemistry</i> , 1996 , 35, 11300-9	3.2	133
44	Kinetic pathways and barriers for ligand binding to myoglobin. <i>Journal of Biological Chemistry</i> , 1996 , 271, 17593-6	5.4	227
43	Mechanism of NO-induced oxidation of myoglobin and hemoglobin. <i>Biochemistry</i> , 1996 , 35, 6976-83	3.2	567
42	The stability of holomyoglobin is determined by heme affinity. <i>Biochemistry</i> , 1996 , 35, 11310-8	3.2	187
41	High resolution crystal structures of the deoxy, oxy, and aquomet forms of cobalt myoglobin. <i>Journal of Biological Chemistry</i> , 1996 , 271, 25419-22	5.4	46
40	Stoichiometry of subunits and heme content of hemoglobin from the earthworm <i>Lumbricus terrestris</i> . <i>Journal of Biological Chemistry</i> , 1996 , 271, 29999-30006	5.4	26
39	Phe-46(CD4) orients the distal histidine for hydrogen bonding to bound ligands in sperm whale myoglobin. <i>Proteins: Structure, Function and Bioinformatics</i> , 1995 , 22, 322-39	4.2	42
38	Time-resolved resonance raman study of the recombination dynamics photodissociated carbon monoxide to sperm whale myoglobin and its mutants. <i>Journal of Molecular Liquids</i> , 1995 , 65-66, 317-320 ⁶		
37	A double mutant of sperm whale myoglobin mimics the structure and function of elephant myoglobin. <i>Journal of Biological Chemistry</i> , 1995 , 270, 20763-74	5.4	60

36	Alteration of axial coordination by protein engineering in myoglobin. Bisimidazole ligation in the His64-->Val/Val68-->His double mutant. <i>Journal of Biological Chemistry</i> , 1995 , 270, 15993-6001	5.4	55
35	Interactions among residues CD3, E7, E10, and E11 in myoglobins: attempts to simulate the ligand-binding properties of Aplysia myoglobin. <i>Biochemistry</i> , 1995 , 34, 8715-25	3.2	38
34	Structural and functional effects of apolar mutations of the distal valine in myoglobin. <i>Journal of Molecular Biology</i> , 1995 , 245, 416-36	6.5	184
33	The D-helix in myoglobin and in the beta subunit of hemoglobin is required for the retention of heme. <i>Biochemistry</i> , 1995 , 34, 8221-6	3.2	33
32	Time-resolved resonance Raman study of the recombination dynamics photodissociated carbon monoxide to sperm whale myoglobin and its mutants. <i>Studies in Physical and Theoretical Chemistry</i> , 1995 , 317-320		
31	Identification of the iron-carbonyl stretch in distal histidine mutants of carbonmonoxymyoglobin. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1994 , 1188, 417-21	4.6	29
30	Stability of myoglobin: a model for the folding of heme proteins. <i>Biochemistry</i> , 1994 , 33, 11767-75	3.2	129
29	Structural determinants of the stretching frequency of CO bound to myoglobin. <i>Biochemistry</i> , 1994 , 33, 1433-46	3.2	326
28	Mechanisms of Ligand Recognition in Myoglobin. <i>Chemical Reviews</i> , 1994 , 94, 699-714	68.1	714
27	Assignment of rate constants for O ₂ and CO binding to alpha and beta subunits within R- and T-state human hemoglobin. <i>Methods in Enzymology</i> , 1994 , 232, 363-86	1.7	31
26	High-resolution crystal structures of distal histidine mutants of sperm whale myoglobin. <i>Journal of Molecular Biology</i> , 1993 , 234, 140-55	6.5	364
25	Recombinant human hemoglobin: modification of the polarity of the beta-heme pocket by a valine67(E11)-->threonine mutation. <i>Biochemistry</i> , 1993 , 32, 1235-42	3.2	25
24	Distal pocket polarity in ligand binding to myoglobin: deoxy and carbonmonoxy forms of a threonine68(E11) mutant investigated by X-ray crystallography and infrared spectroscopy. <i>Biochemistry</i> , 1993 , 32, 13061-70	3.2	66
23	Serine92 (F7) contributes to the control of heme reactivity and stability in myoglobin. <i>Biochemistry</i> , 1993 , 32, 5132-8	3.2	78
22	Contributions of residue 45(CD3) and heme-6-propionate to the biomolecular and geminate recombination reactions of myoglobin. <i>Biochemistry</i> , 1991 , 30, 4697-705	3.2	68
21	Distal pocket polarity in ligand binding to myoglobin: structural and functional characterization of a threonine68(E11) mutant. <i>Biochemistry</i> , 1991 , 30, 6252-60	3.2	86
20	A simple model for prediction of oxygen transport rates by flowing blood in large capillaries. <i>Microvascular Research</i> , 1990 , 39, 203-11	3.7	30
19	Structure of myoglobin-ethyl isocyanide. Histidine as a swinging door for ligand entry. <i>Journal of Molecular Biology</i> , 1989 , 207, 459-63	6.5	116

18	The role of the distal histidine in myoglobin and haemoglobin. <i>Nature</i> , 1988 , 336, 265-6	50.4	236
17	A mutant lactose repressor with altered inducer and operator binding parameters. <i>Journal of Molecular Biology</i> , 1985 , 183, 43-51	6.5	8
16	Mechanisms of ligand binding to pentacoordinate protoheme. <i>Journal of the American Chemical Society</i> , 1983 , 105, 1522-1527	16.4	38
15	Numerical analysis of kinetic ligand binding data. <i>Methods in Enzymology</i> , 1981 , 76, 652-67	1.7	13
14	Stopped-flow, rapid mixing measurements of ligand binding to hemoglobin and red cells. <i>Methods in Enzymology</i> , 1981 , 76, 631-51	1.7	103
13	Interaction of lac repressor with inducer, kinetic and equilibrium measurements. <i>Journal of Molecular Biology</i> , 1977 , 111, 27-39	6.5	35
12	The effect of ligand size and stereochemistry on the reactivity of the alpha and beta chains within hemoglobin. <i>Biochimica Et Biophysica Acta (BBA) - Protein Structure</i> , 1976 , 434, 428-39		10
11	The Ligand-binding Properties of desHis(146)Hemoglobin. <i>Journal of Biological Chemistry</i> , 1973 , 248, 6387-6393	5.4	20
10	The Effects of pH and Anions on the Properties of the α and β Chains within Human Deoxyhemoglobin. <i>Journal of Biological Chemistry</i> , 1973 , 248, 1616-1622	5.4	21
9	The Release of Protons and Anions during Ligand Binding to Human Deoxyhemoglobin. <i>Journal of Biological Chemistry</i> , 1973 , 248, 1623-1630	5.4	26
8	The Functional Properties of Hemoglobin Bethesda ($\alpha\beta$ 145 is). <i>Journal of Biological Chemistry</i> , 1972 , 247, 3662-3670	5.4	45
7	The Reaction of n-Butyl Isocyanide with Human Hemoglobin. <i>Journal of Biological Chemistry</i> , 1972 , 247, 1713-1726	5.4	58
6	Nuclear magnetic resonance studies of hemoglobins. 8. Evidence for preferential ligand binding to chains within deoxyhemoglobins. <i>Biochemical and Biophysical Research Communications</i> , 1971 , 45, 22-6	3.4	35
5	The Dissociation of the First Oxygen Molecule from Some Mammalian Oxyhemoglobins. <i>Journal of Biological Chemistry</i> , 1971 , 246, 5919-5923	5.4	81
4	The Reaction of n-Butyl Isocyanide with Human Hemoglobin. <i>Journal of Biological Chemistry</i> , 1971 , 246, 5241-5253	5.4	66
3	The relation of the light-induced increase in absorbance at 518 nm to photophosphorylation in digitonin subchloroplast particles. <i>FEBS Letters</i> , 1970 , 7, 151-156	3.8	15
2	Organic phosphates and the reaction of N-butyl isocyanide with human hemoglobin. <i>Biochemical and Biophysical Research Communications</i> , 1970 , 41, 421-6	3.4	30
1	Functional Aspects of the Subunit Association-Dissociation Equilibria of Hemoglobin. <i>Journal of Biological Chemistry</i> , 1970 , 245, 4372-4381	5.4	134

