Abdu I Alayash

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3783995/publications.pdf

Version: 2024-02-01

131 papers	6,641 citations	66343 42 h-index	71685 76 g-index
132 all docs	132 docs citations	132 times ranked	5073 citing authors

#	Article	IF	Citations
1	Unraveling of Hemoglobin Oxidative Toxicity: Thirty Years of Investigation. Regenerative Medicine, Artificial Cells and Nanomedicine, 2022, , 463-479.	0.1	1
2	Hemoglobin Oxidation Reactions in Stored Blood. Antioxidants, 2022, 11, 747.	5.1	9
3	Mitapivat increases ATP and decreases oxidative stress and erythrocyte mitochondria retention in a SCD mouse model. Blood Cells, Molecules, and Diseases, 2022, 95, 102660.	1.4	9
4	Î²Cysteine 93 in human hemoglobin: a gateway to oxidative stability in health and disease. Laboratory Investigation, 2021, 101, 4-11.	3.7	16
5	Cell-Free Hemoglobin Does Not Attenuate the Effects of SARS-CoV-2 Spike Protein S1 Subunit in Pulmonary Endothelial Cells. International Journal of Molecular Sciences, 2021, 22, 9041.	4.1	13
6	The Impact of COVID-19 Infection on Oxygen Homeostasis: A Molecular Perspective. Frontiers in Physiology, 2021, 12, 711976.	2.8	14
7	Caffeic acid: an antioxidant with novel antisickling properties. FEBS Open Bio, 2021, 11, 3293-3303.	2.3	9
8	Effects of Î± subunit substitutions on the oxidation of Î²Cys93 and the stability of sickle cell hemoglobin. Redox Report, 2020, 25, 95-103.	4.5	0
9	Post-translational modification as a response to cellular stress induced by hemoglobin oxidation in sickle cell disease. Scientific Reports, 2020, 10, 14218.	3.3	25
10	The Providence Mutation (Î²K82D) in Human Hemoglobin Substantially Reduces Î²Cysteine 93 Oxidation and Oxidative Stress in Endothelial Cells. International Journal of Molecular Sciences, 2020, 21, 9453.	4.1	9
11	Targeting the red cell enzyme pyruvate kinase with a small allosteric molecule AG-348 may correct underlying pathology of a glycolytic enzymopathy. Haematologica, 2020, 106, 9-11.	3.5	1
12	Redox states of hemoglobin determine left ventricle pressure recovery and activity of mitochondrial complex IV in hypoxic rat hearts. Free Radical Biology and Medicine, 2019, 141, 348-361.	2.9	2
13	Antisickling Drugs Targeting Î²Cys93 Reduce Iron Oxidation and Oxidative Changes in Sickle Cell Hemoglobin. Frontiers in Physiology, 2019, 10, 931.	2.8	13
14	Interactions of an Anti-Sickling Drug with Hemoglobin in Red Blood Cells from a Patient with Sickle Cell Anemia. Bioconjugate Chemistry, 2019, 30, 568-571.	3.6	11
15	Voxelotor treatment of a patient with sickle cell disease and very severe anemia. American Journal of Hematology, 2019, 94, E88-E90.	4.1	9
16	Substitutions in the Î² subunits of sickle-cell hemoglobin improve oxidative stability and increase the delay time of sickle-cell fiber formation. Journal of Biological Chemistry, 2019, 294, 4145-4159.	3.4	9
17	Mechanisms of Toxicity and Modulation of Hemoglobin-based Oxygen Carriers. Shock, 2019, 52, 41-49.	2.1	62
18	Dissecting the biochemical architecture and morphological release pathways of the human platelet extracellular vesiculome. Cellular and Molecular Life Sciences, 2018, 75, 3781-3801.	5.4	38

#	Article	IF	Citations
19	Comprehensive Biochemical and Biophysical Characterization of Hemoglobin-Based Oxygen Carrier Therapeutics: All HBOCs Are Not Created Equally. Bioconjugate Chemistry, 2018, 29, 1560-1575.	3.6	50
20	Site-directed mutagenesis of cysteine residues alters oxidative stability of fetal hemoglobin. Redox Biology, 2018, 19, 218-225.	9.0	16
21	Comparison of the oxidative reactivity of recombinant fetal and adult human hemoglobin: implications for the design of hemoglobin-based oxygen carriers. Bioscience Reports, 2018, 38, .	2.4	22
22	Oxidative pathways in the sickle cell and beyond. Blood Cells, Molecules, and Diseases, 2018, 70, 78-86.	1.4	39
23	Hemoglobin oxidationâ€“dependent reactions promote interactions with band 3 and oxidative changes in sickle cellâ€“derived microparticles. JCI Insight, 2018, 3, .	5.0	48
24	Determination of extinction coefficients of human hemoglobin in various redox states. Analytical Biochemistry, 2017, 521, 11-19.	2.4	84
25	Redox Chemistry of Hemoglobin-Associated Disorders. Antioxidants and Redox Signaling, 2017, 26, 745-747.	5.4	3
26	Engineering oxidative stability in human hemoglobin based on the Hb providence (Î²K82D) mutation and genetic cross-linking. Biochemical Journal, 2017, 474, 4171-4192.	3.7	15
27	Targeting Î²Cys93 in hemoglobin S with an antisickling agent possessing dual allosteric and antioxidant effects. Metallomics, 2017, 9, 1260-1270.	2.4	14
28	Exploring Oxidative Reactions in Hemoglobin Variants Using Mass Spectrometry: Lessons for Engineering Oxidatively Stable Oxygen Therapeutics. Antioxidants and Redox Signaling, 2017, 26, 777-793.	5.4	13
29	Oxidized Mutant Human Hemoglobins S and E Induce Oxidative Stress and Bioenergetic Dysfunction in Human Pulmonary Endothelial Cells. Frontiers in Physiology, 2017, 8, 1082.	2.8	12
30	Hemoglobin-Based Blood Substitutes and the Treatment of Sickle Cell Disease: More Harm than Help?. Biomolecules, 2017, 7, 2.	4.0	41
31	Sustained treatment of sickle cell mice with haptoglobin increases <scp>HO</scp>â€1 and Hâ€ferritin expression and decreases iron deposition in the kidney without improvement in kidney function. British Journal of Haematology, 2016, 175, 714-723.	2.5	16
32	Differential heme release from various hemoglobin redox states and the upregulation of cellular heme oxygenaseâ€1. FEBS Open Bio, 2016, 6, 876-884.	2.3	56
33	Memorial â€“ Dr. Joseph C. Fratantoni. Artificial Cells, Nanomedicine and Biotechnology, 2016, 44, 1049-1049.	2.8	1
34	Oxidized Ferric and Ferryl Forms of Hemoglobin Trigger Mitochondrial Dysfunction and Injury in Alveolar Type I Cells. American Journal of Respiratory Cell and Molecular Biology, 2016, 55, 288-298.	2.9	36
35	Oxidative instability of hemoglobin E (Î²26 Gluâ†'Lys) is increased in the presence of free Î± subunits and reversed by Î±-hemoglobin stabilizing protein (AHSP): Relevance to HbE/Î²-thalassemia. Redox Biology, 2016, 8, 363-374.	9.0	19
36	Structural and biochemical characterization of two heme binding sites on Î± 1 -microglobulin using site directed mutagenesis and molecular simulation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 29-41.	2.3	20

#	Article	IF	Citations
37	Hemoglobin S Oxidation Promotes Plasma-Derived Microparticle Membrane Alterations and Toxicity. Blood, 2016, 128, 856-856.	1.4	3
38	Evaluation of Stem Cell-Derived Red Blood Cells as a Transfusion Product Using a Novel Animal Model. PLoS ONE, 2016, 11, e0166657.	2.5	13
39	Sickle Cell Hemoglobin in the Ferryl State Promotes Î²Cys-93 Oxidation and Mitochondrial Dysfunction in Epithelial Lung Cells (E10). Journal of Biological Chemistry, 2015, 290, 27939-27958.	3.4	42
40	Haptoglobin attenuates hemoglobin-induced heme oxygenase-1 in renal proximal tubule cells and kidneys of a mouse model of sickle cell disease. Blood Cells, Molecules, and Diseases, 2015, 54, 302-306.	1.4	40
41	Dissection of the radical reactions linked to fetal hemoglobin reveals enhanced pseudoperoxidase activity. Frontiers in Physiology, 2015, 6, 39.	2.8	33
42	Characterization of heme binding to recombinant ÃŽÂ±1-microglobulin. Frontiers in Physiology, 2014, 5, 465.	2.8	34
43	Blood substitutes: why havenâ€™t we been more successful?. Trends in Biotechnology, 2014, 32, 177-185.	9.3	142
44	Redox properties of human hemoglobin in complex with fractionated dimeric and polymeric human haptoglobin. Free Radical Biology and Medicine, 2014, 69, 265-277.	2.9	54
45	Post-translational Transformation of Methionine to Aspartate Is Catalyzed by Heme Iron and Driven by Peroxide. Journal of Biological Chemistry, 2014, 289, 22342-22357.	3.4	29
46	Heme triggers TLR4 signaling leading to endothelial cell activation and vaso-occlusion in murine sickle cell disease. Blood, 2014, 123, 377-390.	1.4	555
47	Haptoglobin: the hemoglobin detoxifier in plasma. Trends in Biotechnology, 2013, 31, 2-3.	9.3	69
48	Redox Reactions of Hemoglobin: Mechanisms of Toxicity and Control. Antioxidants and Redox Signaling, 2013, 18, 2251-2253.	5.4	28
49	Molecular Controls of the Oxygenation and Redox Reactions of Hemoglobin. Antioxidants and Redox Signaling, 2013, 18, 2298-2313.	5.4	54
50	Î±-Hemoglobin Stabilizing Protein (AHSP) Markedly Decreases the Redox Potential and Reactivity of Î±-Subunits of Human HbA with Hydrogen Peroxide. Journal of Biological Chemistry, 2013, 288, 4288-4298.	3.4	29
51	Molecular Basis of Haptoglobin and Hemoglobin Complex Formation and Protection against Oxidative Stress and Damage. Regenerative Medicine, Artificial Cells and Nanomedicine, 2013, , 149-168.	0.1	5
52	Hemolysis and free hemoglobin revisited: exploring hemoglobin and hemin scavengers as a novel class of therapeutic proteins. Blood, 2013, 121, 1276-1284.	1.4	582
53	Haptoglobin Binding Stabilizes Hemoglobin Ferryl Iron and the Globin Radical on Tyrosine Î²145. Antioxidants and Redox Signaling, 2013, 18, 2264-2273.	5.4	62
54	Haptoglobin Binding Stabilizes Hemoglobin Ferryl Iron and the Globin Radical on Tyrosine Î²145. Antioxidants and Redox Signaling, 2013, 18, 2264-2273.	5.4	71

#	Article	IF	Citations
55	Haptoglobin Preferentially Binds Î² but Not Î± Subunits Cross-Linked Hemoglobin Tetramers with Minimal Effects on Ligand and Redox Reactions. PLoS ONE, 2013, 8, e59841.	2.5	20
56	Effects of carbon monoxide (CO) delivery by a CO donor or hemoglobin on vascular hypoxia inducible factor 1Î± and mitochondrial respiration. FEBS Open Bio, 2012, 2, 113-118.	2.3	17
57	Haptoglobin alters oxygenation and oxidation of hemoglobin and decreases propagation of peroxide-induced oxidative reactions. Free Radical Biology and Medicine, 2012, 53, 1317-1326.	2.9	34
58	Enhanced nitrite reductase activity associated with the haptoglobin complexed hemoglobin dimer: Functional and antioxidative implications. Nitric Oxide - Biology and Chemistry, 2012, 27, 32-39.	2.7	18
59	Familial secondary erythrocytosis due to increased oxygen affinity is caused by destabilization of the T state of hemoglobin Brigham (Î±₂Î²₂^{Pro100Leu}). Protein Science, 2012, 21, 1444-1455.	7.6	3
60	Heme binding to human alpha-1 proteinase inhibitor. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 2020-2029.	2.4	27
61	Slow Histidine H/D Exchange Protocol for Thermodynamic Analysis of Protein Folding and Stability Using Mass Spectrometry. Analytical Chemistry, 2012, 84, 1653-1660.	6.5	25
62	Isolated Hb Providence Î²82Asn and Î²82Asp Fractions Are More Stable than Native HbA₀ under Oxidative Stress Conditions. Biochemistry, 2011, 50, 9752-9766.	2.5	19
63	Blood Aging, Safety, and Transfusion: Capturing the â€œRadicalâ€•Menace. Antioxidants and Redox Signaling, 2011, 14, 1713-1728.	5.4	35
64	Haptoglobin: Old protein with new functions. Clinica Chimica Acta, 2011, 412, 493-498.	1.1	87
65	Induction of hypoxia inducible factor (HIF-1Î±) in rat kidneys by iron chelation with the hydroxypyridinone, CP94. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2011, 1809, 262-268.	1.9	22
66	Inactivation of prolyl hydroxylase domain (PHD) protein by epigallocatechin (EGCG) stabilizes hypoxia-inducible factor (HIF-1Î±) and induces hepcidin (Hamp) in rat kidney. Biochemical and Biophysical Research Communications, 2011, 416, 421-426.	2.1	10
67	Functional comparison of hemoglobin purified by different methods and their biophysical implications. Biotechnology and Bioengineering, 2010, 106, 76-85.	3.3	20
68	Clearance and Control Mechanisms of Hemoglobin from Cradle to Grave. Antioxidants and Redox Signaling, 2010, 12, 181-184.	5.4	49
69	Mixed S-Nitrosylated Polymerized Bovine Hemoglobin Species Moderate Hemodynamic Effects in Acutely Hypoxic Rats. American Journal of Respiratory Cell and Molecular Biology, 2010, 42, 200-209.	2.9	9
70	Setbacks in Blood Substitutes Research and Development: AÂBiochemical Perspective. Clinics in Laboratory Medicine, 2010, 30, 381-389.	1.4	46
71	Effects of cross-linking and zero-link polymerization on oxygen transport and redox chemistry of bovine hemoglobin. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 1234-1242.	2.3	28
72	Haptoglobin preserves the CD163 hemoglobin scavenger pathway by shielding hemoglobin from peroxidative modification. Blood, 2009, 113, 2578-2586.	1.4	169

#	Article	IF	Citations
73	Sequestration of extracellular hemoglobin within a haptoglobin complex decreases its hypertensive and oxidative effects in dogs and guinea pigs. Journal of Clinical Investigation, 2009, 119, 2271-80.	8.2	156
74	All hemoglobin-based oxygen carriers are not created equally. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1378-1381.	2.3	54
75	Peroxidase activity of hemoglobin towards ascorbate and urate: A synergistic protective strategy against toxicity of Hemoglobin-Based Oxygen Carriers (HBOC). Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1415-1420.	2.3	62
76	Effects of (-)-epigallocatechin gallate on the redox reactions of human hemoglobin. Free Radical Biology and Medicine, 2008, 45, 659-666.	2.9	23
77	The reaction of hydrogen peroxide with hemoglobin induces extensive Î±-globin crosslinking and impairs the interaction of hemoglobin with endogenous scavenger pathways. Free Radical Biology and Medicine, 2008, 45, 1150-1158.	2.9	66
78	Structural Stabilization in Tetrameric or Polymeric Hemoglobin Determines Its Interaction with Endogenous Antioxidant Scavenger Pathways. Antioxidants and Redox Signaling, 2008, 10, 1449-1462.	5.4	43
79	Acellular haemoglobin attenuates hypoxia-inducible factor-1Î± (HIF-1Î±) and its target genes in haemodiluted rats. Biochemical Journal, 2008, 414, 461-469.	3.7	19
80	Structural Basis of Peroxide-mediated Changes in Human Hemoglobin. Journal of Biological Chemistry, 2007, 282, 4894-4907.	3.4	134
81	First-generation blood substitutes: what have we learned? Biochemical and physiological perspectives. Expert Opinion on Biological Therapy, 2007, 7, 665-675.	3.1	43
82	Oxidation of hemoglobin: mechanisms of control in vitro and in vivo. Transfusion Alternatives in Transfusion Medicine, 2007, 9, 204-212.	0.2	13
83	Gating the Radical Hemoglobin to Macrophages: The Anti-Inflammatory Role of CD163, a Scavenger Receptor. Antioxidants and Redox Signaling, 2007, 9, 991-999.	5.4	87
84	Effects of Endogenous Ascorbate on Oxidation, Oxygenation, and Toxicokinetics of Cell-Free Modified Hemoglobin after Exchange Transfusion in Rat and Guinea Pig. Journal of Pharmacology and Experimental Therapeutics, 2007, 323, 49-60.	2.5	86
85	Allosteric effects on oxidative and nitrosative reactions of cellâ€free hemoglobins. IUBMB Life, 2007, 59, 498-505.	3.4	20
86	Chemical Characterization of Diaspirin Cross-Linked Hemoglobin Polymerized with Poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	6.5	19
87	CD163 is the macrophage scavenger receptor for native and chemically modified hemoglobins in the absence of haptoglobin. Blood, 2006, 107, 373-380.	1.4	248
88	Ascorbate removes key precursors to oxidative damage by cell-free haemoglobin in vitro and in vivo. Biochemical Journal, 2006, 399, 513-524.	3.7	92
89	O-raffinose crosslinked hemoglobin lacks site-specific chemistry in the central cavity: Structural and functional consequences of Î²93Cys modification. Proteins: Structure, Function and Bioinformatics, 2005, 59, 840-855.	2.6	38
90	Structural and Functional Characterization of Glutaraldehyde-Polymerized Bovine Hemoglobin and Its Isolated Fractions. Analytical Chemistry, 2005, 77, 3466-3478.	6.5	72

#	Article	IF	Citations
91	Redox Biology of Blood Revisited: The Role of Red Blood Cells in Maintaining Circulatory Reductive Capacity. Antioxidants and Redox Signaling, 2005, 7, 1755-1760.	5.4	43
92	Redox Biology of Blood. Antioxidants and Redox Signaling, 2004, 6, 941-943.	5.4	16
93	Hemodilution With Stoma-Free Hemoglobin at Physiologically Maintained Viscosity Delays the Onset of Vasoconstriction. Hypertension, 2004, 43, 1110-1115.	2.7	13
94	Differential effects of sodium selenite in reducing tissue damage caused by three hemoglobin-based oxygen carriers. Journal of Applied Physiology, 2004, 96, 893-903.	2.5	17
95	Toxicities of hemoglobin solutions: in search of in-vitro and in-vivo model systems. Transfusion, 2004, 44, 1516-1530.	1.6	93
96	Oxygen therapeutics: can we tame haemoglobin?. Nature Reviews Drug Discovery, 2004, 3, 152-159.	46.4	269
97	Effects of Cell-Free Hemoglobin on Hypoxia-Inducible Factor (HIF-1Î±) and Heme Oxygenase (HO-1) Expressions in Endothelial Cells Subjected to Hypoxia. Antioxidants and Redox Signaling, 2004, 6, 944-953.	5.4	22
98	Oxygen binding and oxidation reactions of human hemoglobin conjugated to carboxylate dextran. Biochimica Et Biophysica Acta - General Subjects, 2004, 1672, 164-173.	2.4	37
99	Cross-linking with O-raffinose lowers oxygen affinity and stabilizes haemoglobin in a non-cooperative T-state conformation. Biochemical Journal, 2004, 384, 367-375.	3.7	27
100	Oxygen Sensing in the Circulation: "Cross Talk" Between Red Blood Cells and the Vasculature. Antioxidants and Redox Signaling, 2004, 6, 1000-1010.	5.4	4
101	Redox Biology of Blood. Antioxidants and Redox Signaling, 2004, 6, 941-943.	5.4	7
102	Effects of Cell-Free Hemoglobin on Hypoxia-Inducible Factor (HIF-1Î±) and Heme Oxygenase (HO-1) Expressions in Endothelial Cells Subjected to Hypoxia. Antioxidants and Redox Signaling, 2004, 6, 944-953.	5.4	3
103	Site-Specific Cross-Linking of Human and Bovine Hemoglobins Differentially Alters Oxygen Binding and Redox Side Reactions Producing Rhombic Heme and Heme Degradationâ€. Biochemistry, 2002, 41, 7407-7415.	2.5	112
104	A role for the myoglobin redox cycle in the induction of endothelial cell apoptosis. Free Radical Biology and Medicine, 2002, 33, 1153-1164.	2.9	34
105	Stopped-flow fluorescence method for the detection of heme degradation products in solutions of chemically modified hemoglobins and peroxide. Analytical Biochemistry, 2002, 308, 186-188.	2.4	9
106	Redox Reactions of Hemoglobin and Myoglobin: Biological and Toxicological Implications. Antioxidants and Redox Signaling, 2001, 3, 313-327.	5.4	223
107	Effects of Glutaraldehyde Polymerization on Oxygen Transport and Redox Properties of Bovine Hemoglobin. Archives of Biochemistry and Biophysics, 2001, 391, 225-234.	3.0	71
108	Redox cycling of diaspirin cross-linked hemoglobin induces G2/M arrest and apoptosis in cultured endothelial cells. Blood, 2001, 98, 3315-3323.	1.4	77

#	Article	IF	Citations
109	Biological action of nitric oxide donor compounds on platelets from patients with sickle cell disease. British Journal of Haematology, 2001, 112, 1048-1054.	2.5	25
110	OXIDATIVE MECHANISMS OF HEMOGLOBIN-BASED BLOOD SUBSTITUTES*. Artificial Cells, Blood Substitutes, and Biotechnology, 2001, 29, 415-425.	0.9	29
111	Effect of nitric oxide and nitric oxide donors on red blood cell oxygen transport. British Journal of Haematology, 2000, 110, 412-419.	2.5	28
112	Site-specific modifications and toxicity of blood substitutes. Advanced Drug Delivery Reviews, 2000, 40, 199-212.	13.7	50
113	Interactions of hemoglobin with hydrogen peroxide alters thiol levels and course of endothelial cell death. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H1880-H1889.	3.2	33
114	Nitric Oxide-Mediated Heme Oxidation and Selective Î²-Globin Nitrosation of Hemoglobin from Normal and Sickle Erythrocytes. Biochemical and Biophysical Research Communications, 2000, 275, 962-967.	2.1	23
115	Effects of hypoxia and glutathione depletion on hemoglobin- and myoglobin-mediated oxidative stress toward endothelium1The opinions and assertions contained herein are the scientific views of the authors and are not to be construed as policy of the United States Food and Drug Administration or the United States Army.1. Biochimica Et Biophysica Acta - Molecular Cell Research, 2000, 1495, 150-159.	4.1	31
116	Hemoglobin-based blood substitutes and the hazards of blood radicals. Free Radical Research, 2000, 33, 341-348.	3.3	46
117	Cardiovascular and hemorheological effects of three modified human hemoglobin solutions in hemodiluted rabbits. Journal of Applied Physiology, 1999, 86, 541-548.	2.5	34
118	Detection of a ferrylhemoglobin intermediate in an endothelial cell model after hypoxia-reoxygenation. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H92-H99.	3.2	25
119	Reactions of Sperm Whale Myoglobin with Hydrogen Peroxide. Journal of Biological Chemistry, 1999, 274, 2029-2037.	3.4	78
120	Hemoglobin-based blood substitutes: oxygen carriers, pressor agents, or oxidants?. Nature Biotechnology, 1999, 17, 545-549.	17.5	213
121	Peroxynitrite-Mediated Heme Oxidation and Protein Modification of Native and Chemically Modified Hemoglobins. Archives of Biochemistry and Biophysics, 1998, 349, 65-73.	3.0	83
122	Hemoglobin Aoand Î±-Crosslinked Hemoglobin (Î±-DBBF) Potentiate Agonist-Induced Platelet Aggregation Through the Platelet Thromboxane Receptor. Artificial Cells, Blood Substitutes, and Biotechnology, 1998, 26, 1-16.	0.9	10
123	20 Reactions of cross-linked ferric haemoglobins with hydrogen peroxide. Biochemical Society Transactions, 1998, 26, S320-S320.	3.4	4
124	Acellular hemoglobin-mediated oxidative stress toward endothelium: a role for ferryl iron. American Journal of Physiology - Heart and Circulatory Physiology, 1998, 275, H1046-H1053.	3.2	40
125	Effects of polymerization on the hypertensive action of diaspirin cross-linked hemoglobin in rats. Translational Research, 1997, 129, 603-610.	2.3	82
126	Effects of polymerization on the oxygen carrying and redox properties of diaspirin cross-linked hemoglobin. BBA - Proteins and Proteomics, 1995, 1248, 135-142.	2.1	27

#	Article	IF	Citations
127	Hemoglobin and free radicals: implications for the development of a safe blood substitute. Trends in Molecular Medicine, 1995, 1, 122-127.	2.6	61
128	Reactions of Nitric Oxide and Hydrogen Peroxide with Hemoglobinâ€Based Blood Substitutes. Annals of the New York Academy of Sciences, 1994, 738, 378-381.	3.8	17
129	Differential susceptibilities of the prosthetic heme of hemoglobin-based red cell substitutes. Biochemical Pharmacology, 1993, 46, 2299-2305.	4.4	43
130	Consequences of chemical modifications on the free radical reactions of human hemoglobin. Archives of Biochemistry and Biophysics, 1992, 298, 114-120.	3.0	44
131	Hemoglobin can Act as a (Pseudo)-Peroxidase in Vivo. What is the Evidence?. Frontiers in Molecular Biosciences, 0, 9, .	3.5	1