Andrea Mozzarelli

List of Publications by Year
in descending order

252	7,906	47004 47	82542 72
papers	citations	h-index	g-index

306	306	306	5892
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Is cooperative oxygen binding by hemoglobin really understood?. Nature Structural Biology, 1999, 6, 351-358.	9.7	292
2	Delay time of hemoglobin S polymerization prevents most cells from sickling in vivo. Science, 1987, 237, 500-506.	12.6	209
3	Pyridoxal 5-Phosphate Enzymes as Targets for Therapeutic Agents. Current Medicinal Chemistry, 2007, 14, 1291-1324.	2.4	177
4	Crystal structures and inhibitor binding in the octameric flavoenzyme vanillyl-alcohol oxidase: the shape of the active-site cavity controls substrate specificity. Structure, 1997, 5, 907-920.	3.3	154
5	Simple, Intuitive Calculations of Free Energy of Binding for Proteinâ^'Ligand Complexes. 1. Models without Explicit Constrained Water. Journal of Medicinal Chemistry, 2002, 45, 2469-2483.	6.4	131
6	Structures of Î³-Aminobutyric Acid (GABA) Aminotransferase, a Pyridoxal 5â€²-Phosphate, and [2Fe-2S] Cluster-containing Enzyme, Complexed with Î³-Ethynyl-GABA and with the Antiepilepsy Drug Vigabatrin. Journal of Biological Chemistry, 2004, 279, 363-373.	3.4	129
7	Oxygen binding by single crystals of hemoglobin. Biochemistry, 1993, 32, 2888-2906.	2.5	128
8	Crystals of haemoglobin with the T quaternary structure bind oxygen noncooperatively with no Bohr effect. Nature, 1991, 351, 416-419.	27.8	121
9	â€œMuscle to meatâ€•molecular events and technological transformations: The proteomics insight. Journal of Proteomics, 2012, 75, 4275-4289.	2.4	115
10	T State Hemoglobin Binds Oxygen Noncooperatively with Allosteric Effects of Protons, Inositol Hexaphosphate, and Chloride. Journal of Biological Chemistry, 1997, 272, 32050-32055.	3.4	113
11	Protein Function in the Crystal. Annual Review of Biophysics and Biomolecular Structure, 1996, 25, 343-365.	18.3	112
12	Simple, Intuitive Calculations of Free Energy of Binding for Proteinâ^'Ligand Complexes. 3. The Free Energy Contribution of Structural Water Molecules in HIV-1 Protease Complexes. Journal of Medicinal Chemistry, 2004, 47, 4507-4516.	6.4	112
13	The Roles of Water in the Protein Matrix: A Largely Untapped Resource for Drug Discovery. Journal of Medicinal Chemistry, 2017, 60, 6781-6827.	6.4	111
14	New insights into allosteric mechanisms from trapping unstable protein conformations in silica gels. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14414-14419.	7.1	110
15	Evolution of allosteric models for hemoglobin. IUBMB Life, 2007, 59, 586-599.	3.4	103
16	Drug Discovery Targeting Amino Acid Racemases. Chemical Reviews, 2011, 111, 6919-6946.	47.7	97
17	Robust Classification of â€œRelevantâ€•Water Molecules in Putative Protein Binding Sites. Journal of Medicinal Chemistry, 2008, 51, 1063-1067.	6.4	93
18	Active Site Plasticity ind-Amino Acid Oxidase:Â A Crystallographic Analysisâ€,â€¡. Biochemistry, 1997, 36, 5853-5860.	2.5	89

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19	Free Energy of Ligand Binding to Protein: Evaluation of the Contribution of Water Molecules by Computational Methods. Current Medicinal Chemistry, 2004, 11, 3093-3118.	2.4	89
20	Monovalent Cations Affect Dynamic and Functional Properties of the Tryptophan Synthase .alpha.2.beta.2 Complex. Biochemistry, 1995, 34, 9459-9465.	2.5	86
21	Mapping the Energetics of Waterâ€"Protein and Waterâ€"Ligand Interactions with the â€œNaturalâ€•HINT Forcefield: Predictive Tools for Characterizing the Roles of Water in Biomolecules. Journal of Molecular Biology, 2006, 358, 289-309.	4.2	85
22	Interaction of serine acetyltransferase withO-acetylserine sulfhydrylase active site: Evidence from fluorescence spectroscopy. Protein Science, 2005, 14, 2115-2124.	7.6	83
23	Tryptophan synthase: a mine for enzymologists. Cellular and Molecular Life Sciences, 2009, 66, 2391-2403.	5.4	83
24	Simple, Intuitive Calculations of Free Energy of Binding for Proteinâ^'Ligand Complexes. 2. Computational Titration and pH Effects in Molecular Models of Neuraminidaseâ^'Inhibitor Complexes. Journal of Medicinal Chemistry, 2003, 46, 4487-4500.	6.4	77
25	Allosteric Regulation of Tryptophan Synthase:Â Effects of pH, Temperature, and Î±-Subunit Ligands on the Equilibrium Distribution of Pyridoxal 5â€˜-Phosphateâ^'l-Serine Intermediatesâ€. Biochemistry, 1996, 35, 1872-1880.	2.5	75
26	Design of O-Acetylserine Sulfhydrylase Inhibitors by Mimicking Nature. Journal of Medicinal Chemistry, 2010, 53, 345-356.	6.4	75
27	High and low oxygen affinity conformations of T state hemoglobin. Protein Science, 2008, 10, 2401-2407.	7.6	74
28	Identification of Xenoestrogens in Food Additives by an Integrated in Silico and in Vitro Approach. Chemical Research in Toxicology, 2009, 22, 52-63.	3.3	74
29	Dynamics of green fluorescent protein mutant2 in solution, on spin-coated glasses, and encapsulated in wet silica gels. Protein Science, 2002, 11, 1152-1161.	7.6	61
30	Exploring and exploiting allostery: Models, evolution, and drug targeting. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 922-933.	2.3	60
31	Functional Properties of the Active Core of Human Cystathionine Î²-Synthase Crystals. Journal of Biological Chemistry, 2001, 276, 16-19.	3.4	58
32	Structure, Mechanism, and Conformational Dynamics of O-Acetylserine Sulfhydrylase from Salmonella typhimurium:â€‰ Comparison of A and B Isozymes. Biochemistry, 2007, 46, 8315-8330.	2.5	58
33	The consequences of scoring docked ligand conformations using free energy correlations. European Journal of Medicinal Chemistry, 2007, 42, 921-933.	5.5	58
34	Microspectrophotometric Studies on Single Crystals of the Tryptophan Synthase Î±2Î²2 Complex Demonstrate Formation of Enzyme-Substrate Intermediates. Journal of Biological Chemistry, 1989, 264, 15774-15780.	3.4	58
35	Kinetics of Acid-Induced Spectral Changes in the GFPmut2 Chromophore. Journal of the American Chemical Society, 2005, 127, 626-635.	13.7	57
36	Unfolding of Green Fluorescent Protein mut2 in wet nanoporous silica gels. Protein Science, 2005, 14, 1125-1133.	7.6	57

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37	Energetics of the protein-DNA-water interaction. BMC Structural Biology, 2007, 7, 4.	2.3	57
38	Bound Water at Protein-Protein Interfaces: Partners, Roles and Hydrophobic Bubbles as a Conserved Motif. PLoS ONE, 2011, 6, e24712.	2.5	57
39	Conformational changes and subunit communication in tryptophan synthase: effect of substrates and substrate analogs. Biochemistry, 1992, 31, 7535-7542.	2.5	56
40	The Reactivity with CO of AHb1 and AHb2 from Arabidopsis thaliana is Controlled by the Distal HisE7 and Internal Hydrophobic Cavities. Journal of the American Chemical Society, 2007, 129, 2880-2889.	13.7	54
41	Time-resolved methods in Biophysics. 2. Monitoring haem proteins at work with nanosecond laser flash photolysis. Photochemical and Photobiological Sciences, 2006, 5, 1109.	2.9	53
42	Muscle and meat: New horizons and applications for proteomics on a farm to fork perspective. Journal of Proteomics, 2013, 88, 58-82.	2.4	53
43	Exploring the pyridoxal 5â€²-phosphate-dependent enzymes. Chemical Record, 2006, 6, 275-287.	5.8	52
44	Microspectrophotometry for structural enzymology. Current Opinion in Structural Biology, 2004, 14, 656-662.	5.7	51
45	Allosteric effectors do not alter the oxygen affinity of hemoglobin crystals. Protein Science, 1997, 6, 484-489.	7.6	50
46	Structure and Oxygen Affinity of Crystalline of DesArg141Î± Human Hemoglobin A in the T State. Journal of Molecular Biology, 1995, 248, 136-150.	4.2	49
47	Functional and Spectroscopic Characterization of Half-Liganded Ironâ^'Zinc Hybrid Hemoglobin:â€‰ Evidence for Conformational Plasticity within the T State,. Biochemistry, 2003, 42, 8272-8288.	2.5	49
48	Spectroscopic and Functional Characterization of T State Hemoglobin Conformations Encapsulated in Silica Gelsâ€. Biochemistry, 2004, 43, 13674-13682.	2.5	49
49	Allosteric mechanism of haemoglobin: rupture of salt-bridges raises the oxygen affinity of the T-structure 1 1Edited by D. Rees. Journal of Molecular Biology, 1998, 281, 581-585.	4.2	47
50	Ligand migration through the internal hydrophobic cavities in human neuroglobin. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18984-18989.	7.1	47
51	Discovery of Covalent Inhibitors of Glyceraldehyde-3-phosphate Dehydrogenase, A Target for the Treatment of Malaria. Journal of Medicinal Chemistry, 2014, 57, 7465-7471.	6.4	47
52	Experimental basis for a new allosteric model for multisubunit proteins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12758-12763.	7.1	46
53	Anticooperative ligand binding properties of recombinant ferric Vitreoscilla homodimeric hemoglobin: A thermodynamic, kinetic and X-ray crystallographic study 1 1Edited by K. Nagei 2 2This paper is dedicated to Professor Giampaolo Bolognesi on the occasion of his 75th birthday.. Journal of Molecular Biology, 1999, 291, 637-650.	4.2	45
54	PEGylation Promotes Hemoglobin Tetramer Dissociation. Bioconjugate Chemistry, 2009, 20, 1356-1366.	3.6	45

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55	Cryocrystallography and Microspectrophotometry of a Mutant (Î±D60N) Tryptophan Synthase Î±2Î²2Complex Reveals Allosteric Roles of Î±Asp60â€‚â€¡. Biochemistry, 1998, 37, 10653-10659.	2.5	44
56	Energyâ€based prediction of amino acidâ€nucleotide base recognition. Journal of Computational Chemistry, 2008, 29, 1955-1969.	3.3	44
57	Identification of a Small Molecule that Increases Hemoglobin Oxygen Affinity and Reduces SS Erythrocyte Sickling. ACS Chemical Biology, 2014, 9, 2318-2325.	3.4	44
58	Isozyme-Specific Ligands for O-acetylserine sulfhydrylase, a Novel Antibiotic Target. PLoS ONE, 2013, 8, e77558.	2.5	43
59	Towards a novel haemoglobin-based oxygen carrier: Euro-PEG-Hb, physico-chemical properties, vasoactivity and renal filtration. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1402-1409.	2.3	42
60	Inhibitors of the Sulfur Assimilation Pathway in Bacterial Pathogens as Enhancers of Antibiotic Therapy. Current Medicinal Chemistry, 2014, 22, 187-213.	2.4	42
61	Microspectrophotometric studies on single crystals of the tryptophan synthase alpha 2 beta 2 complex demonstrate formation of enzyme-substrate intermediates. Journal of Biological Chemistry, 1989, 264, 15774-80.	3.4	42
62	The multifaceted pyridoxal 5â€²-phosphate-dependent O-acetylserine sulfhydrylase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 1497-1510.	2.3	39
63	Mutational Effects at the Subunit Interfaces of Human Hemoglobin:Â Evidence for a Unique Sensitivity of the T Quaternary State to Changes in the Hinge Region of the Î±1Î²2 Interfaceâ€. Biochemistry, 2001, 40, 12357-12368.	2.5	38
64	Cooperative Oxygen Binding to Scapharca inaequivalvis Hemoglobin in the Crystal. Journal of Biological Chemistry, 1996, 271, 3627-3632.	3.4	37
65	Crystal Structures of a New Class of Allosteric Effectors Complexed to Tryptophan Synthase. Journal of Biological Chemistry, 2002, 277, 10647-10652.	3.4	36
66	Design and synthesis of trans-2-substituted-cyclopropane-1-carboxylic acids as the first non-natural small molecule inhibitors of O-acetylserine sulfhydrylase. MedChemComm, 2012, 3, 1111.	3.4	36
67	Role of Pyridoxal 5â€²-Phosphate in the Structural Stabilization of O-Acetylserine Sulfhydrylase. Journal of Biological Chemistry, 2000, 275, 40244-40251.	3.4	35
68	Functional Characterization of Heme Proteins Encapsulated in Wet Nanoporous Silica Gels. Journal of Nanoscience and Nanotechnology, 2001, 1, 407-415.	0.9	35
69	Trapping of the Thioacylglyceraldehyde-3-phosphate Dehydrogenase Intermediate from Bacillus stearothermophilus. Journal of Biological Chemistry, 2008, 283, 21693-21702.	3.4	35
70	A Two-step Process Controls the Formation of the Bienzyme Cysteine Synthase Complex. Journal of Biological Chemistry, 2010, 285, 12813-12822.	3.4	35
71	Fine tuning of the active site modulates specificity in the interaction of O-acetylserine sulfhydrylase isozymes with serine acetyltransferase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 169-181.	2.3	35
72	Moonlighting O-acetylserine sulfhydrylase: New functions for an old protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1184-1193.	2.3	35

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73	ComputationalÂTitrationÂAnalysisÂofÂaÂMultiproticÂHIV-1ÂProteaseâ^'LigandÂComplex. Journal of the American Chemical Society, 2004, 126, 11764-11765.	13.7	34
74	Serine racemase: a key player in neuron activity and in neuropathologies. Frontiers in Bioscience - Landmark, 2013, 18, 1112.	3.0	34
75	<scp>ATP</scp> binding to human serine racemase is cooperative and modulated by glycine. FEBS Journal, 2013, 280, 5853-5863.	4.7	33
76	Experiments on Hemoglobin in Single Crystals and Silica Gels Distinguish among Allosteric Models. Biophysical Journal, 2015, 109, 1264-1272.	0.5	33
77	Oxygen binding by single crystals of hemoglobin: The problem of cooperativity and inequivalence of alpha and beta subunits. Proteins: Structure, Function and Bioinformatics, 1996, 25, 425-437.	2.6	33
78	Time-Resolved Fluorescence ofO-Acetylserine Sulfhydrylase Catalytic Intermediatesâ€. Biochemistry, 1997, 36, 15419-15427.	2.5	32
79	Tyrosine phenol-lyase and tryptophan indole-lyase encapsulated in wet nanoporous silica gels: Selective stabilization of tertiary conformations. Protein Science, 2004, 13, 913-924.	7.6	32
80	Getting it right: modeling of pH, solvent and â€œnearlyâ€•everything else in virtual screening of biological targets. Journal of Molecular Graphics and Modelling, 2004, 22, 479-486.	2.4	32
81	Different roles of protein dynamics and ligand migration in non-symbiotic hemoglobins AHb1 and AHb2 from Arabidopsis thaliana. Gene, 2007, 398, 224-233.	2.2	32
82	Proteomic analysis of pork meat in the production of cooked ham. Molecular BioSystems, 2011, 7, 2252.	2.9	32
83	Tracking Unfolding and Refolding of Single GFPmut2 Molecules. Biophysical Journal, 2005, 89, 2033-2045.	0.5	31
84	Time-resolved fluorescence of O-acetylserine sulfhydrylase. BBA - Proteins and Proteomics, 1999, 1429, 317-330.	2.1	29
85	Evidence for Two Geminate Rebinding States Following Laser Photolysis of R State Hemoglobin Encapsulated in Wet Silica Gels. Journal of Physical Chemistry B, 2005, 109, 11411-11413.	2.6	29
86	Determination of Microscopic Rate Constants for CO Binding and Migration in Myoglobin Encapsulated in Silica Gels. Journal of Physical Chemistry B, 2005, 109, 19523-19528.	2.6	29
87	Geminate Rebinding in R-State Hemoglobin:Â Kinetic and Computational Evidence for Multiple Hydrophobic Pockets. Journal of the American Chemical Society, 2005, 127, 17427-17432.	13.7	29
88	Oxygen Binding to Heme Proteins in Solution, Encapsulated in Silica Gels, and in the Crystalline State. Methods in Enzymology, 2008, 437, 311-328.	1.0	29
89	Allosteric Communication of Tryptophan Synthase. Journal of Biological Chemistry, 2001, 276, 17747-17753.	3.4	28
90	Crystal Structure of the Î²Ser178 â†' Pro Mutant of Tryptophan Synthase. Journal of Biological Chemistry, 2002, 277, 10653-10660.	3.4	28

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91	CO Rebinding Kinetics and Molecular Dynamics Simulations Highlight Dynamic Regulation of Internal Cavities in Human Cytoglobin. PLoS ONE, 2013, 8, e49770.	2.5	28
92	Rational Design, Synthesis, and Preliminary Structureâ€“Activity Relationships of Î±-Substituted-2-Phenylcyclopropane Carboxylic Acids as Inhibitors of Salmonella typhimurium O-Acetylserine Sulfhydrylase. Journal of Medicinal Chemistry, 2016, 59, 2567-2578.	6.4	28
93	The Energy Landscape of Human Serine Racemase. Frontiers in Molecular Biosciences, 2018, 5, 112.	3.5	28
94	Snapshots of the Cystine Lyase C-DES during Catalysis. Journal of Biological Chemistry, 2003, 278, 357-365.	3.4	27
95	Circular dichroism spectroscopy of tertiary and quaternary conformations of human hemoglobin entrapped in wet silica gels. Protein Science, 2006, 15, 1961-1967.	7.6	27
96	Ligand Migration in Nonsymbiotic Hemoglobin AHb1 from Arabidopsis thaliana. Journal of Physical Chemistry B, 2007, 111, 12582-12590.	2.6	27
97	Proteomics of Parma Dry-Cured Ham: Analysis of Salting Exudates. Journal of Agricultural and Food Chemistry, 2017, 65, 6307-6316.	5.2	27
98	Characterization of tryptophan and coenzyme luminescence in tryptophan synthase from Salmonella typhimurium. Biochemistry, 1992, 31, 7527-7534.	2.5	26
99	Crystals of Tryptophan Indole-Lyase and Tyrosine Phenol-Lyase Form Stable Quinonoid Complexes. Journal of Biological Chemistry, 2002, 277, 21592-21597.	3.4	26
100	CO Rebinding Kinetics to Myoglobin- and R-State-Hemoglobin-Doped Silica Gels in the Presence of Glycerol. Journal of Physical Chemistry B, 2004, 108, 8475-8484.	2.6	26
101	Targeting Cystalysin, a Virulence Factor of Treponema denticolaâ€Supported Periodontitis. ChemMedChem, 2014, 9, 1501-1511.	3.2	26
102	Enhanced geminate ligand rebinding upon photo-dissociation of silica gel-embedded myoglobinâ€“CO. Chemical Physics Letters, 2001, 346, 430-436.	2.6	25
103	Identification of the Structural Determinants for the Stability of Substrate and Aminoacrylate External Schiff Bases in O-Acetylserine Sulfhydrylase-A. Biochemistry, 2010, 49, 6093-6103.	2.5	25
104	Human kynurenine aminotransferaseâ€ƒIIâ€ƒâ€“â€ƒreactivity with substrates and inhibitors. FEBS Journal, 2011, 278, 1882-1900.	4.7	25
105	Effect of chloride on oxygen binding to crystals of hemoglobin Rothschild (.beta.37 Trp .fwdarw. Arg) in the T quaternary structure. Biochemistry, 1993, 32, 6411-6418.	2.5	24
106	Surface-exposed Tryptophan Residues Are Essential for O-Acetylserine Sulfhydrylase Structure, Function, and Stability. Journal of Biological Chemistry, 2003, 278, 37511-37519.	3.4	24
107	Identification of the Geometric Requirements for Allosteric Communication between the Î±- and Î²-Subunits of Tryptophan Synthase. Journal of Biological Chemistry, 2005, 280, 13450-13456.	3.4	24
108	MediaChrom: Discovering a Class of Pyrimidoindolone-Based Polarity-Sensitive Dyes. Journal of Organic Chemistry, 2015, 80, 10939-10954.	3.2	24

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109	Kinetic studies of crystalline enzymes by single crystal microspectrophotometry. Analysis of a single catalytic turnover in a D-glyceraldehyde-3-phosphate dehydrogenase crystal.. Journal of Biological Chemistry, 1979, 254, 8480-8486.	3.4	24
110	Haemoglobin-based oxygen carriers: research and reality towards an alternative to blood transfusions. Blood Transfusion, 2010, 8 Suppl 3, s59-68.	0.4	24
111	Catalytic and regulatory properties of d-glyceraldehyde-3-phosphate dehydrogenase in the crystal. Journal of Molecular Biology, 1977, 110, 405-415.	4.2	23
112	Confinement and crowding effects on tryptophan synthase Î±2Î²2complex. FEBS Letters, 2005, 579, 2197-2202.	2.8	23
113	Chemogenomic Strategies to Expand the Bioactive Chemical Space. Current Medicinal Chemistry, 2009, 16, 4374-4381.	2.4	23
114	Engineering tyrosine electron transfer pathways decreases oxidative toxicity in hemoglobin: implications for blood substitute design. Biochemical Journal, 2016, 473, 3371-3383.	3.7	23
115	Catalytic Activity of Aspartate Aminotransferase in the Crystal. Equilibrium and Kinetic Analysis. FEBS Journal, 1979, 98, 173-179.	0.2	22
116	Allosteric communication between alpha and beta subunits of tryptophan synthase: Modelling the open-closed transition of the alpha subunit. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2006, 1764, 1102-1109.	2.3	22
117	Expanding the chemical space of human serine racemase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 4297-4303.	2.2	22
118	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
119	Complex formation and intermolecular electron transfer between flavocytochrome b2 in the crystal and cytochrome c.. Journal of Biological Chemistry, 1983, 258, 5424-5427.	3.4	22
120	Time-resolved fluorescence of tryptophan synthase. Biophysical Chemistry, 1996, 61, 9-22.	2.8	21
121	Regulation of human serine racemase activity and dynamics by halides, ATP and malonate. Amino Acids, 2015, 47, 163-173.	2.7	21
122	Cyclopropane-1,2-dicarboxylic acids as new tools for the biophysical investigation ofO-acetylserine sulfhydrylases by fluorimetric methods and saturation transfer difference (STD) NMR. Journal of Enzyme Inhibition and Medicinal Chemistry, 2016, 31, 78-87.	5.2	21
123	Catalytic competence of O-acetylserine sulfhydrylase in the crystal probed by polarized absorption microspectrophotometry. Journal of Molecular Biology, 1998, 283, 135-146.	4.2	20
124	Novel allosteric effectors of the tryptophan synthase Î±2Î²2 complex identified by computer-assisted molecular modeling. BBA - Proteins and Proteomics, 2000, 1476, 287-299.	2.1	20
125	Structural Plasticity and Functional Implications of Internal Cavities in Distal Mutants of Type 1 Non-Symbiotic Hemoglobin AHb1 fromArabidopsis thaliana. Journal of Physical Chemistry B, 2009, 113, 16028-16038.	2.6	20
126	Histidine E7 Dynamics Modulates Ligand Exchange between Distal Pocket and Solvent in AHb1 from Arabidopsis thaliana. Journal of Physical Chemistry B, 2011, 115, 4138-4146.	2.6	20

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127	Protein carbonylation detection methods: A comparison. Data in Brief, 2018, 19, 2215-2220.	1.0	20
128	Immobilization of Proteins in Silica Gel: Biochemical and Biophysical Properties. Current Organic Chemistry, 2015, 19, 1653-1668.	1.6	20
129	Structure and Oxygen Affinity of Crystalline des-His-146Î² Human Hemoglobin in the T State. Journal of Biological Chemistry, 1997, 272, 33077-33084.	3.4	19
130	Effect of pH and Monovalent Cations on the Formation of Quinonoid Intermediates of the Tryptophan Synthase Î±2Î²2 Complex in Solution and in the Crystal. Journal of Biological Chemistry, 2000, 275, 6956-6962.	3.4	19
131	Molecular Heterogeneity of O-Acetylserine Sulfhydrylase by Two-Photon Excited Fluorescence Fluctuation Spectroscopy. Biophysical Journal, 2001, 80, 1973-1985.	0.5	19
132	Role of Aspartate-133 and Histidine-458 in the Mechanism of Tryptophan Indole-Lyase fromProteus vulgarisâ€. Biochemistry, 2003, 42, 11161-11169.	2.5	19
133	Oxygen binding to Arabidopsis thaliana AHb2 nonsymbiotic hemoglobin: evidence for a role in oxygen transport. IUBMB Life, 2011, 63, 355-362.	3.4	19
134	Engineering tyrosine residues into hemoglobin enhances heme reduction, decreases oxidative stress and increases vascular retention of a hemoglobin based blood substitute. Free Radical Biology and Medicine, 2019, 134, 106-118.	2.9	19
135	Kinetic studies of crystalline enzymes by single crystal microspectrophotometry. Analysis of a single catalytic turnover in a D-glyceraldehyde-3-phosphate dehydrogenase crystal. Journal of Biological Chemistry, 1979, 254, 8480-6.	3.4	19
136	Tools for building a comprehensive modeling system for virtual screening under real biological conditions: The Computational Titration algorithm. Journal of Molecular Graphics and Modelling, 2006, 24, 434-439.	2.4	18
137	Exploring methionine Î³-lyase structure-function relationship via microspectrophotometry and X-ray crystallography. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 834-842.	2.3	18
138	Selectivity of 3-bromo-isoxazoline inhibitors between human and Plasmodium falciparum glyceraldehyde-3-phosphate dehydrogenases. Bioorganic and Medicinal Chemistry, 2016, 24, 2654-2659.	3.0	18
139	Conformational probes of O-acetylserine sulfhydrylase: fluorescence of tryptophans 50 and 161. Journal of Photochemistry and Photobiology B: Biology, 1999, 48, 17-26.	3.8	17
140	Site-directed mutations of human hemoglobin at residue 35Î²: A residue at the intersection of the Î±1Î²1, Î±1Î²2, and Î±1Î±2 interfaces. Protein Science, 2001, 10, 1847-1855.	7.6	17
141	Magnesium and calcium ions differentially affect human serine racemase activity and modulate its quaternary equilibrium toward a tetrameric form. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 381-387.	2.3	17
142	Discovery of novel fragments inhibiting O-acetylserine sulphhydrylase by combining scaffold hopping and ligandâ€“based drug design. Journal of Enzyme Inhibition and Medicinal Chemistry, 2018, 33, 1444-1452.	5.2	17
143	Inhibition of Nonessential Bacterial Targets: Discovery of a Novel Serine O-Acetyltransferase Inhibitor. ACS Medicinal Chemistry Letters, 2020, 11, 790-797.	2.8	17
144	Sulfur Mobilization in Cyanobacteria. Journal of Biological Chemistry, 2006, 281, 38769-38780.	3.4	16

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145	Evidence of Discrete Substates and Unfolding Pathways in Green Fluorescent Protein. Biophysical Journal, 2007, 92, 1724-1731.	0.5	16
146	Oxygen and nitric oxide rebinding kinetics in nonsymbiotic hemoglobin AHb1 from Arabidopsis thaliana. IUBMB Life, 2011, 63, 1094-1100.	3.4	16
147	Engineering hemoglobin to enable homogenous PEGylation without modifying protein functionality. Biomaterials Science, 2020, 8, 3896-3906.	5.4	16
148	Hemoglobin, an â€œevergreenâ€•red protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 1317-1324.	2.3	15
149	Ligand migration and hexacoordination in type 1 non-symbiotic rice hemoglobin. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 1042-1053.	2.3	15
150	Asymmetry of the Active Site Loop Conformation between Subunits of Glutamate-1-semialdehyde Aminomutase in Solution. BioMed Research International, 2013, 2013, 1-10.	1.9	15
151	Modulation of Escherichia coli serine acetyltransferase catalytic activity in the cysteine synthase complex. FEBS Letters, 2017, 591, 1212-1224.	2.8	15
152	Higher expression of miR-133b is associated with better efficacy of erlotinib as the second or third line in non-small cell lung cancer patients. PLoS ONE, 2018, 13, e0196350.	2.5	15
153	Protein isomerization in the NAD+-dependent activation of beta-(2-furyl)acryloyl-glyceraldehyde-3-phosphate dehydrogenase in the crystal.. Journal of Biological Chemistry, 1982, 257, 6739-6744.	3.4	15
154	From hemoglobin allostery to hemoglobin-based oxygen carriers. Molecular Aspects of Medicine, 2022, 84, 101050.	6.4	15
155	Modulation of expression and polymerization of hemoglobin Polytaur, a potential blood substitute. Archives of Biochemistry and Biophysics, 2011, 505, 42-47.	3.0	14
156	Unintended consequences? Water molecules at biological and crystallographic proteinâ€“protein interfaces. Computational Biology and Chemistry, 2013, 47, 126-141.	2.3	14
157	From protein structure to function via single crystal optical spectroscopy. Frontiers in Molecular Biosciences, 2015, 2, 12.	3.5	14
158	Crystallographic symmetry and coenzyme binding properties of D-glyceraldehyde-3-phosphate dehydrogenase from the tail muscle of Palinurus vulgaris.. Journal of Biological Chemistry, 1979, 254, 8004-8006.	3.4	14
159	Plasticity of the Tryptophan Synthase Active Site Probed by31P NMR Spectroscopy. Journal of Biological Chemistry, 1998, 273, 33247-33253.	3.4	13
160	HINT predictive analysis of binding between retinol binding protein and hydrophobic ligands. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 2129-2132.	2.2	13
161	Oxygen binding by single red blood cells from the red-eared turtle Trachemys scripta. Journal of Applied Physiology, 2001, 90, 1679-1684.	2.5	13
162	Oxygen binding by Î±(Fe²⁺₂Î²(Ni²⁺₂ hemoglobin crystals. Protein Science, 2000, 9, 683-692.	7.6	13

#	Article	IF	Citations
163	Molecular insights into dimerization inhibition of c-Maf transcription factor. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 2108-2115.	2.3	13
164	Covalent Inhibitors of Plasmodium falciparum Glyceraldehyde 3-Phosphate Dehydrogenase with Antimalarial Activity in Vitro. ACS Medicinal Chemistry Letters, 2019, 10, 590-595.	2.8	13
165	Investigational Studies on a Hit Compound Cyclopropaneâ€“Carboxylic Acid Derivative Targeting O-Acetylserine Sulfhydrylase as a Colistin Adjuvant. ACS Infectious Diseases, 2021, 7, 281-292.	3.8	13
166	High- and low-affinity PEGylated hemoglobin-based oxygen carriers: Differential oxidative stress in a Guinea pig transfusion model. Free Radical Biology and Medicine, 2018, 124, 299-310.	2.9	13
167	The molecular pathway for the allosteric regulation of tryptophan synthase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2003, 1647, 157-160.	2.3	12
168	Water: How to evaluate its contribution in protein-ligand interactions. International Journal of Quantum Chemistry, 2006, 106, 647-651.	2.0	12
169	Control of Ionizable Residues in the Catalytic Mechanism of Tryptophan Synthase from Salmonella typhimurium. Biochemistry, 2007, 46, 13223-13234.	2.5	12
170	Hemoglobin-based oxygen carriers as blood substitutes. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1363-1364.	2.3	12
171	Pyridoxal 5â€²-Phosphate-Dependent Enzymes: Catalysis, Conformation, and Genomics. , 2010, , 273-350.		12
172	X-ray crystallography marries spectroscopy to unveil structure and function of biological macromolecules. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 731-733.	2.3	12
173	Chemogenomics of pyridoxal 5â€²-phosphate dependent enzymes. Journal of Enzyme Inhibition and Medicinal Chemistry, 2013, 28, 183-194.	5.2	12
174	Insight of Saffron Proteome by Gel-Electrophoresis. Molecules, 2016, 21, 167.	3.8	12
175	Cyclopropane derivatives as potential human serine racemase inhibitors: unveiling novel insights into a difficult target. Journal of Enzyme Inhibition and Medicinal Chemistry, 2016, 31, 645-652.	5.2	12
176	Gene cloning, characterization, and cytotoxic activity of methionine Î³â€lyase from Clostridium novyi. IUBMB Life, 2017, 69, 668-676.	3.4	12
177	Inhibition ofO-acetylserine sulfhydrylase by fluoroalanine derivatives. Journal of Enzyme Inhibition and Medicinal Chemistry, 2018, 33, 1343-1351.	5.2	12
178	Glutamine 89 is a key residue in the allosteric modulation of human serine racemase activity by ATP. Scientific Reports, 2018, 8, 9016.	3.3	12
179	More than a Confinement: â€œSoftâ€•and â€œHardâ€•Enzyme Entrapment Modulates Biological Catalyst Function. Catalysts, 2019, 9, 1024.	3.5	12
180	Refining the structureâ^'activity relationships of 2-phenylcyclopropane carboxylic acids as inhibitors of O-acetylserine sulfhydrylase isoforms. Journal of Enzyme Inhibition and Medicinal Chemistry, 2019, 34, 31-43.	5.2	12

#	Article	IF	Citations
181	Enzyme Replacement Therapy for Genetic Disorders Associated with Enzyme Deficiency. Current Medicinal Chemistry, 2022, 29, 489-525.	2.4	12
182	Protein crystal microspectrophotometry. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2011, 1814, 734-741.	2.3	11
183	Human serine racemase is allosterically modulated by NADH and reduced nicotinamide derivatives. Biochemical Journal, 2016, 473, 3505-3516.	3.7	11
184	Human serine racemase is nitrosylated at multiple sites. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 813-821.	2.3	11
185	Engineering methionine Î³-lyase from Citrobacter freundii for anticancer activity. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 1260-1270.	2.3	11
186	Protein isomerization in the NAD+-dependent activation of beta-(2-furyl)acryloyl-glyceraldehyde-3-phosphate dehydrogenase in the crystal. Journal of Biological Chemistry, 1982, 257, 6739-44.	3.4	11
187	pH Dependence of Tryptophan Synthase Catalytic Mechanism. Journal of Biological Chemistry, 2004, 279, 29572-29582.	3.4	10
188	Trapping Hemoglobin in Rigid Matrices: Fine Tuning of Oxygen Binding Properties by Modulation of Encapsulation Protocols. Artificial Cells, Blood Substitutes, and Biotechnology, 2007, 35, 69-79.	0.9	10
189	Complexity in Modeling and Understanding Protonation States: Computational Titration of HIVâ€1â€Proteaseâ€“Inhibitor Complexes. Chemistry and Biodiversity, 2007, 4, 2564-2577.	2.1	10
190	Ligand-Induced Tertiary Relaxations During the T-to-R Quaternary Transition in Hemoglobin. Journal of Physical Chemistry B, 2008, 112, 12790-12794.	2.6	10
191	Correlation of protein functional properties in the crystal and in solution: The case study of T-state hemoglobin. Protein Science, 2009, 11, 1845-1849.	7.6	10
192	Structural insight into the interaction of Oâ€acetylserine sulfhydrylase with competitive, peptidic inhibitors by saturation transfer differenceâ€<scp>NMR</scp>. FEBS Letters, 2016, 590, 943-953.	2.8	10
193	Microspectrophotometric measurements on single crystals of mitochondrial serine hydroxymethyltransferase.. Journal of Biological Chemistry, 1981, 256, 3776-3780.	3.4	10
194	Unfolding of pyridoxal 5â€²-phosphate-dependent O-acetylserine sulfhydrylase probed by time-resolved tryptophan fluorescence. BBA - Proteins and Proteomics, 2002, 1596, 47-54.	2.1	9
195	Low affinity PEGylated hemoglobin from Trematomus bernacchii, a model for hemoglobin-based blood substitutes. BMC Biochemistry, 2011, 12, 66.	4.4	9
196	Electrophoretic analysis of PEGylated hemoglobin-based blood substitutes. Analytical Biochemistry, 2011, 408, 118-123.	2.4	9
197	Role of tertiary structures on the Root effect in fish hemoglobins. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 1885-1893.	2.3	9
198	Combination of SAXS and Protein Painting Discloses the Three-Dimensional Organization of the Bacterial Cysteine Synthase Complex, a Potential Target for Enhancers of Antibiotic Action. International Journal of Molecular Sciences, 2019, 20, 5219.	4.1	9

#	Article	IF	Citations
199	Current Perspectives on the Kinetics of Hemoglobin S Gelation. Annals of the New York Academy of Sciences, 1989, 565, 53-62.	3.8	8
200	Exploring O-acetylserine sulfhydrylase-B isoenzyme from Salmonella typhimurium by fluorescence spectroscopy. Archives of Biochemistry and Biophysics, 2011, 505, 178-185.	3.0	8
201	Soluble and Nanoporous Silica Gel-Entrapped C. freundii Methionine Î³-Lyase. Journal of Nanoscience and Nanotechnology, 2018, 18, 2210-2219.	0.9	8
202	Is the protein profile of pig Longissimus dorsi affected by gender and diet?. Journal of Proteomics, 2019, 206, 103437.	2.4	8
203	The allosteric interplay between Sâ€nitrosylation and glycine binding controls the activity of human serine racemase. FEBS Journal, 2021, 288, 3034-3054.	4.7	8
204	Microspectrophotometric measurements on single crystals of mitochondrial serine hydroxymethyltransferase. Journal of Biological Chemistry, 1981, 256, 3776-80.	3.4	8
205	Is cooperative oxygen binding by hemoglobin really understood?. Rendiconti Lincei, 2006, 17, 147-162.	2.2	7
206	Hemocyanin from E. californicum encapsulated in silica gels: Oxygen binding and conformational states. Gene, 2007, 398, 202-207.	2.2	7
207	Tertiary and Quaternary Allostery in Tetrameric Hemoglobin from Scapharca inaequivalvis. Biochemistry, 2013, 52, 2108-2117.	2.5	7
208	Activation of an anti-bacterial toxin by the biosynthetic enzyme CysK: mechanism of binding, interaction specificity and competition with cysteine synthase. Scientific Reports, 2017, 7, 8817.	3.3	7
209	Rational Design of a User-Friendly Aptamer/Peptide-Based Device for the Detection of Staphylococcus aureus. Sensors, 2020, 20, 4977.	3.8	7
210	A Key Silencing Histone Mark on Chromatin Is Lost When Colorectal Adenocarcinoma Cells Are Depleted of Methionine by Methionine Î³-Lyase. Frontiers in Molecular Biosciences, 2021, 8, 735303.	3.5	7
211	Cofactor Chemogenomics. Methods in Molecular Biology, 2009, 575, 93-122.	0.9	6
212	Interaction of a Coenzyme Analog with Aspartate Aminotransferase Isoenzymes in the Crystal. FEBS Journal, 1983, 133, 47-49.	0.2	5
213	Environment effects on the oscillatory unfolding kinetics of GFP. European Biophysics Journal, 2007, 36, 795-803.	2.2	5
214	Polymerized and polyethylene glycol-conjugated hemoglobins: A globin-based calibration curve for dynamic light scattering analysis. Analytical Biochemistry, 2010, 401, 266-270.	2.4	5
215	Discovery of Substituted (2-Aminooxazol-4-yl)Isoxazole-3-carboxylic Acids as Inhibitors of Bacterial Serine Acetyltransferase in the Quest for Novel Potential Antibacterial Adjuvants. Pharmaceuticals, 2021, 14, 174.	3.8	5
216	Allosteric Regulation of Trytophan Synthase: A pKa Change at Î²-Active Site Induced by Î±-Subunit. , 1991, , 273-275.		5

#	Article	IF	Citations
217	Characterization of Ligand Migration Mechanisms inside Hemoglobins from the Analysis of Geminate Rebinding Kinetics. Methods in Enzymology, 2008, 437, 329-345.	1.0	4
218	Structural and Functional Characterization of the Globin-Coupled Sensors ofAzotobacter vinelandiiandBordetella pertussis. Antioxidants and Redox Signaling, 2020, 32, 378-395.	5.4	4
219	A Competitive O-Acetylserine Sulfhydrylase Inhibitor Modulates the Formation of Cysteine Synthase Complex. Catalysts, 2021, 11, 700.	3.5	4
220	Stability of Maleimide-PEG and Mono-Sulfone-PEG Conjugation to a Novel Engineered Cysteine in the Human Hemoglobin Alpha Subunit. Frontiers in Chemistry, 2021, 9, 707797.	3.6	4
221	Single Crystal Polarized Absorption Microspectrophotometry of Aromatic L-Amino Acid Decarboxylase. Protein and Peptide Letters, 1994, 1, 98-105.	0.9	4
222	Insight into GFPmut2 pH Dependence by Single Crystal Microspectrophotometry and X-ray Crystallography. Journal of Physical Chemistry B, 2018, 122, 11326-11337.	2.6	3
223	Human serine racemase is inhibited by glyceraldehyde 3-phosphate, but not by glyceraldehyde 3-phosphate dehydrogenase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2021, 1869, 140544.	2.3	3
224	Water induced TSDC in hemoglobin and myoglobin. , 0, , .		2
225	Oxygen binding by single crystals of hemoglobin: The problem of cooperativity and inequivalence of alpha and beta subunits. Proteins: Structure, Function and Bioinformatics, 1996, 25, 425-437.	2.6	2
226	Development of a novel, hemolysis-resistant reagent for assessment of Î±-amylase in biological fluids. Clinical Chemistry and Laboratory Medicine, 2013, 51, 1409-15.	2.3	2
227	Phospholipid components of the synthetic pulmonary surfactant CHF5633 probed by fluorescence spectroscopy. International Journal of Pharmaceutics, 2018, 553, 290-297.	5.2	2
228	SP-B and SP-C analogues within CHF5633 synthetic surfactant probed by fluorescence labeling. Journal of Molecular Liquids, 2020, 298, 111983.	4.9	2
229	The Main Players: Hemoglobin and Myoglobin; Nitric Oxide and Oxygen. , 0, , 47-62.		2
230	International Consortium for Development of Hemoglobin-Based Oxygen Carriers, Oxygen Therapeutics and Multifunctional Resuscitation Fluidsâ€“A White Paper. , 2013, , 737-746.		2
231	Oxygen binding by single crystals of hemoglobin: The problem of cooperativity and inequivalence of alpha and beta subunits. Proteins: Structure, Function and Bioinformatics, 1996, 25, 425-437.	2.6	2
232	Model-based evaluation of the microhemodynamic effects of PEGylated HBOC molecules in the rat brain cortex: a laser speckle imaging study. Biomedical Optics Express, 2020, 11, 4150.	2.9	2
233	Targeted Biologics: The New Frontier for Precision Therapy. Current Medicinal Chemistry, 2022, 29, 383-384.	2.4	2
234	Ormosil gels doped with engineered catechol 1,2 dioxygenases for chlorocatechol bioremediation. Biotechnology and Applied Biochemistry, 2014, 61, 297-303.	3.1	1

#	Article	IF	Citations
235	Proteomics of Meat Products. , 2018, , 297-309.		1
236	ADIFAB fluorescence data used for the quantification of free fatty acids in media at different pH. Data in Brief, 2019, 22, 158-163.	1.0	1
237	Functional properties of immobilized pyridoxal 5â€™-phosphate-dependent enzymes probed by absorption microspectrophotometry. , 2000, , 349-354.		1
238	Engineering the Molecular Shape of PEG-Hemoglobin Adducts for Supraperfusion. , 0, , 345-369.		1
239	Biochemistry of Hemoglobin. , 2013, , 55-73.		1
240	Modulation of Oxygen Affinity in Hemoglobin-based Oxygen Carriers. Regenerative Medicine, Artificial Cells and Nanomedicine, 2021, , 375-403.	0.1	1
241	Human Serine Racemase Weakly Binds the Third PDZ Domain of PSD-95. International Journal of Molecular Sciences, 2022, 23, 4959.	4.1	1
242	Protein structure-function relationship studied by single crystal polarized absorption microspectrophotometry. , 1999, , 3-6.		0
243	Oxygen binding and sensing proteins. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 1683.	2.3	0
244	EGFR-related miRNAs as potential biomarkers of response to Erlotinib in metastatic NSCLC patients. Annals of Oncology, 2015, 26, vi81.	1.2	0
245	Understanding Water and Its Many Roles in Biological Structure: Ways to Exploit a Resource for Drug Discovery. Methods in Pharmacology and Toxicology, 2015, , 85-110.	0.2	0
246	Special Issue on â€œCofactor-dependent proteins: Evolution, chemical diversity and bio-applicationsâ€. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1071-1072.	2.3	0
247	Editorial: Enzymes Regulating the Homeostasis of Agonists and Antagonists of the N-Methyl D-Aspartate Receptors. Frontiers in Molecular Biosciences, 2019, 6, 37.	3.5	0
248	Monitoring the Tâ€R transition of human hemoglobin encapsulated in silica gels. FASEB Journal, 2007, 21, A637.	0.5	0
249	The proteomic insight of the Italian dry cured ham manufacturing. , 2012, , 138-140.		0
250	From meat to food: the proteomics assessment. , 2012, , 31-34.		0
251	The role of salt in dry cured ham processing characterized by LC-MS/MS-based proteomics. , 2013, , 274-277.		0
252	Insights on O-acetylserine sulfhydrylase structure, function and biopharmaceutical applications.. , 2017, , 211-222.		0