

Stefano Bruno

List of Publications by Year in descending order

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110
papers

2,919
citations

201385

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114
all docs

114
docs citations

114
times ranked

3183
citing authors

#	ARTICLE	IF	CITATIONS
1	From 3D reconstruction to virtual reality: A complete methodology for digital archaeological exhibition. <i>Journal of Cultural Heritage</i> , 2010, 11, 42-49.	1.5	304
2	Structural basis for the oxidation of thiosulfate by a sulfur cycle enzyme. <i>EMBO Journal</i> , 2002, 21, 5599-5610.	3.5	143
3	Structures of \hat{I}^3 -Aminobutyric Acid (GABA) Aminotransferase, a Pyridoxal 5 \hat{a} \hat{e} $\hat{2}$ -Phosphate, and [2Fe-2S] Cluster-containing Enzyme, Complexed with \hat{I}^3 -Ethynyl-GABA and with the Antiepilepsy Drug Vigabatrin. <i>Journal of Biological Chemistry</i> , 2004, 279, 363-373.	1.6	129
4	A Review of Low Back Pain and Musculoskeletal Disorders among Italian Nursing Personnel. <i>Industrial Health</i> , 2007, 45, 637-644.	0.4	120
5	New insights into allosteric mechanisms from trapping unstable protein conformations in silica gels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 14414-14419.	3.3	110
6	The SoxYZ Complex Carries Sulfur Cycle Intermediates on a Peptide Swinging Arm*. <i>Journal of Biological Chemistry</i> , 2007, 282, 23194-23204.	1.6	90
7	High and low oxygen affinity conformations of T state hemoglobin. <i>Protein Science</i> , 2008, 10, 2401-2407.	3.1	74
8	Enzymes from Marine Polar Regions and Their Biotechnological Applications. <i>Marine Drugs</i> , 2019, 17, 544.	2.2	69
9	Functional Properties of the Active Core of Human Cystathionine \hat{I}^2 -Synthase Crystals. <i>Journal of Biological Chemistry</i> , 2001, 276, 16-19.	1.6	58
10	The Reactivity with CO of AHb1 and AHb2 from <i>Arabidopsis thaliana</i> is Controlled by the Distal HisE7 and Internal Hydrophobic Cavities. <i>Journal of the American Chemical Society</i> , 2007, 129, 2880-2889.	6.6	54
11	Time-resolved methods in Biophysics. 2. Monitoring haem proteins at work with nanosecond laser flash photolysis. <i>Photochemical and Photobiological Sciences</i> , 2006, 5, 1109.	1.6	53
12	UCP2 inhibition induces ROS/Akt/mTOR axis: Role of GAPDH nuclear translocation in genipin/everolimus anticancer synergism. <i>Free Radical Biology and Medicine</i> , 2017, 113, 176-189.	1.3	52
13	Functional and Spectroscopic Characterization of Half-Liganded Iron \hat{z} Zinc Hybrid Hemoglobin: Evidence for Conformational Plasticity within the T State,. <i>Biochemistry</i> , 2003, 42, 8272-8288.	1.2	49
14	Ligand migration through the internal hydrophobic cavities in human neuroglobin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 18984-18989.	3.3	47
15	Discovery of Covalent Inhibitors of Glyceraldehyde-3-phosphate Dehydrogenase, A Target for the Treatment of Malaria. <i>Journal of Medicinal Chemistry</i> , 2014, 57, 7465-7471.	2.9	47
16	PEGylation Promotes Hemoglobin Tetramer Dissociation. <i>Bioconjugate Chemistry</i> , 2009, 20, 1356-1366.	1.8	45
17	Mutant p53 prevents GAPDH nuclear translocation in pancreatic cancer cells favoring glycolysis and 2-deoxyglucose sensitivity. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2018, 1865, 1914-1923.	1.9	45
18	Towards a novel haemoglobin-based oxygen carrier: Euro-PEG-Hb, physico-chemical properties, vasoactivity and renal filtration. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008, 1784, 1402-1409.	1.1	42

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19	Mutational Effects at the Subunit Interfaces of Human Hemoglobin: Evidence for a Unique Sensitivity of the T Quaternary State to Changes in the Hinge Region of the $\alpha_1\alpha_2$ Interface. <i>Biochemistry</i> , 2001, 40, 12357-12368.	1.2	38
20	Functional Characterization of Heme Proteins Encapsulated in Wet Nanoporous Silica Gels. <i>Journal of Nanoscience and Nanotechnology</i> , 2001, 1, 407-415.	0.9	35
21	Trapping of the Thioacylglyceraldehyde-3-phosphate Dehydrogenase Intermediate from <i>Bacillus stearothermophilus</i> . <i>Journal of Biological Chemistry</i> , 2008, 283, 21693-21702.	1.6	35
22	<sc>ATP</sc> binding to human serine racemase is cooperative and modulated by glycine. <i>FEBS Journal</i> , 2013, 280, 5853-5863.	2.2	33
23	Experiments on Hemoglobin in Single Crystals and Silica Gels Distinguish among Allosteric Models. <i>Biophysical Journal</i> , 2015, 109, 1264-1272.	0.2	33
24	Different roles of protein dynamics and ligand migration in non-symbiotic hemoglobins AHb1 and AHb2 from <i>Arabidopsis thaliana</i> . <i>Gene</i> , 2007, 398, 224-233.	1.0	32
25	Musculoskeletal Complaints among Italian X-ray Technologists. <i>Industrial Health</i> , 2007, 45, 705-708.	0.4	31
26	Oxygen Binding to Heme Proteins in Solution, Encapsulated in Silica Gels, and in the Crystalline State. <i>Methods in Enzymology</i> , 2008, 437, 311-328.	0.4	29
27	CO Rebinding Kinetics and Molecular Dynamics Simulations Highlight Dynamic Regulation of Internal Cavities in Human Cytochrome c. <i>PLoS ONE</i> , 2013, 8, e49770.	1.1	28
28	The Energy Landscape of Human Serine Racemase. <i>Frontiers in Molecular Biosciences</i> , 2018, 5, 112.	1.6	28
29	Biophysical Characterisation of Neuroglobin of the Icefish, a Natural Knockout for Hemoglobin and Myoglobin. Comparison with Human Neuroglobin. <i>PLoS ONE</i> , 2012, 7, e44508.	1.1	28
30	Snapshots of the Cystine Lyase C-DES during Catalysis. <i>Journal of Biological Chemistry</i> , 2003, 278, 357-365.	1.6	27
31	Circular dichroism spectroscopy of tertiary and quaternary conformations of human hemoglobin entrapped in wet silica gels. <i>Protein Science</i> , 2006, 15, 1961-1967.	3.1	27
32	Ligand Migration in Nonsymbiotic Hemoglobin AHb1 from <i>Arabidopsis thaliana</i> . <i>Journal of Physical Chemistry B</i> , 2007, 111, 12582-12590.	1.2	27
33	The Greenland shark <i>Somniosus microcephalus</i> Hemoglobins and ligand-binding properties. <i>PLoS ONE</i> , 2017, 12, e0186181.	1.1	27
34	Crystals of Tryptophan Indole-Lyase and Tyrosine Phenol-Lyase Form Stable Quinonoid Complexes. <i>Journal of Biological Chemistry</i> , 2002, 277, 21592-21597.	1.6	26
35	Targeting Cystalyisin, a Virulence Factor of <i>Treponema denticola</i> Supported Periodontitis. <i>ChemMedChem</i> , 2014, 9, 1501-1511.	1.6	26
36	Enhanced geminate ligand rebinding upon photo-dissociation of silica gel-embedded myoglobin-CO. <i>Chemical Physics Letters</i> , 2001, 346, 430-436.	1.2	25

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37	Ligand Uptake Modulation by Internal Water Molecules and Hydrophobic Cavities in Hemoglobins. <i>Journal of Physical Chemistry B</i> , 2014, 118, 1234-1245.	1.2	25
38	X-ray crystallography, mass spectrometry and single crystal microspectrophotometry: A multidisciplinary characterization of catechol 1,2 dioxygenase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 817-823.	1.1	24
39	Haemoglobin-based oxygen carriers: research and reality towards an alternative to blood transfusions. <i>Blood Transfusion</i> , 2010, 8 Suppl 3, s59-68.	0.3	24
40	Targeting the Eph/Ephrin System as Anti-Inflammatory Strategy in IBD. <i>Frontiers in Pharmacology</i> , 2019, 10, 691.	1.6	22
41	Following Ligand Migration Pathways from Picoseconds to Milliseconds in Type II Truncated Hemoglobin from <i>Thermobifida fusca</i> . <i>PLoS ONE</i> , 2012, 7, e39884.	1.1	22
42	Ligand reactivity and allosteric regulation of hemoglobin-based oxygen carriers. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2008, 1784, 1365-1377.	1.1	21
43	Regulation of human serine racemase activity and dynamics by halides, ATP and malonate. <i>Amino Acids</i> , 2015, 47, 163-173.	1.2	21
44	Structural Plasticity and Functional Implications of Internal Cavities in Distal Mutants of Type 1 Non-Symbiotic Hemoglobin AHb1 from <i>Arabidopsis thaliana</i> . <i>Journal of Physical Chemistry B</i> , 2009, 113, 16028-16038.	1.2	20
45	Histidine E7 Dynamics Modulates Ligand Exchange between Distal Pocket and Solvent in AHb1 from <i>Arabidopsis thaliana</i> . <i>Journal of Physical Chemistry B</i> , 2011, 115, 4138-4146.	1.2	20
46	Engineered chimeras reveal the structural basis of hexacoordination in globins: A case study of neuroglobin and myoglobin. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2015, 1850, 169-177.	1.1	20
47	Protein carbonylation detection methods: A comparison. <i>Data in Brief</i> , 2018, 19, 2215-2220.	0.5	20
48	Immobilization of Proteins in Silica Gel: Biochemical and Biophysical Properties. <i>Current Organic Chemistry</i> , 2015, 19, 1653-1668.	0.9	20
49	Oxygen binding to <i>Arabidopsis thaliana</i> AHb2 nonsymbiotic hemoglobin: evidence for a role in oxygen transport. <i>IUBMB Life</i> , 2011, 63, 355-362.	1.5	19
50	Heterogeneous Kinetics of the Carbon Monoxide Association and Dissociation Reaction to Nitrophorin 4 and 7 Coincide with Structural Heterogeneity of the Gate-Loop. <i>Journal of the American Chemical Society</i> , 2012, 134, 9986-9998.	6.6	19
51	Zinc-Substituted Myoglobin Is a Naturally Occurring Photo-antimicrobial Agent with Potential Applications in Food Decontamination. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 8633-8639.	2.4	19
52	Selectivity of 3-bromo-isoxazoline inhibitors between human and <i>Plasmodium falciparum</i> glyceraldehyde-3-phosphate dehydrogenases. <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 2654-2659.	1.4	18
53	Site-directed mutations of human hemoglobin at residue 35 ¹² : A residue at the intersection of the $\hat{1}\pm 1\hat{1}^2_1$, $\hat{1}\pm 1\hat{1}^2_2$, and $\hat{1}\pm 1\hat{1}^2_3$ interfaces. <i>Protein Science</i> , 2001, 10, 1847-1855.	3.1	17
54	Magnesium and calcium ions differentially affect human serine racemase activity and modulate its quaternary equilibrium toward a tetrameric form. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2017, 1865, 381-387.	1.1	17

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55	Mycobacterial and Human Nitrobindins: Structure and Function. <i>Antioxidants and Redox Signaling</i> , 2020, 33, 229-246.	2.5	17
56	Oxygen and nitric oxide rebinding kinetics in nonsymbiotic hemoglobin AHb1 from <i>Arabidopsis thaliana</i> . <i>IUBMB Life</i> , 2011, 63, 1094-1100.	1.5	16
57	Molecular basis for covalent inhibition of glyceraldehyde-3-phosphate dehydrogenase by a 2-phenoxy-1,4-naphthoquinone small molecule. <i>Chemical Biology and Drug Design</i> , 2017, 90, 225-235.	1.5	16
58	Extracellular Vesicles Derived from Mesenchymal Stromal Cells Delivered during Hypothermic Oxygenated Machine Perfusion Repair Ischemic/Reperfusion Damage of Kidneys from Extended Criteria Donors. <i>Biology</i> , 2022, 11, 350.	1.3	16
59	Structural heterogeneity and ligand gating in ferric <i>Methanosarcina acetivorans</i> protoglobin mutants. <i>IUBMB Life</i> , 2011, 63, 287-294.	1.5	15
60	Ligand migration and hexacoordination in type 1 non-symbiotic rice hemoglobin. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 1042-1053.	1.1	15
61	From hemoglobin allostery to hemoglobin-based oxygen carriers. <i>Molecular Aspects of Medicine</i> , 2022, 84, 101050.	2.7	15
62	Modulation of expression and polymerization of hemoglobin Polytaur, a potential blood substitute. <i>Archives of Biochemistry and Biophysics</i> , 2011, 505, 42-47.	1.4	14
63	From protein structure to function via single crystal optical spectroscopy. <i>Frontiers in Molecular Biosciences</i> , 2015, 2, 12.	1.6	14
64	Oxygen binding by single red blood cells from the red-eared turtle <i>Trachemys scripta</i> . <i>Journal of Applied Physiology</i> , 2001, 90, 1679-1684.	1.2	13
65	Oxygen binding by $(\text{Fe}^{2+})_{2}(\text{Ni}^{2+})_{2}$ hemoglobin crystals. <i>Protein Science</i> , 2000, 9, 683-692.	3.1	13
66	Covalent Inhibitors of Plasmodium falciparum Glyceraldehyde 3-Phosphate Dehydrogenase with Antimalarial Activity in Vitro. <i>ACS Medicinal Chemistry Letters</i> , 2019, 10, 590-595.	1.3	13
67	High- and low-affinity PEGylated hemoglobin-based oxygen carriers: Differential oxidative stress in a Guinea pig transfusion model. <i>Free Radical Biology and Medicine</i> , 2018, 124, 299-310.	1.3	13
68	Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7. <i>PLoS ONE</i> , 2010, 5, 1-11.	0.8	13
69	Ligation Tunes Protein Reactivity in an Ancient Haemoglobin: Kinetic Evidence for an Allosteric Mechanism in <i>Methanosarcina acetivorans</i> Protoglobin. <i>PLoS ONE</i> , 2012, 7, e33614.	1.1	13
70	ATP regulation of the ligand-binding properties in temperate and cold-adapted haemoglobins. X-ray structure and ligand-binding kinetics in the sub-Antarctic fish <i>Eleginops maclovinus</i> . <i>Molecular BioSystems</i> , 2012, 8, 3295.	2.9	12
71	Glutamine 89 is a key residue in the allosteric modulation of human serine racemase activity by ATP. <i>Scientific Reports</i> , 2018, 8, 9016.	1.6	12
72	More than a Confinement: "Soft" and "Hard" Enzyme Entrapment Modulates Biological Catalyst Function. <i>Catalysts</i> , 2019, 9, 1024.	1.6	12

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73	Protein crystal microspectrophotometry. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 734-741.	1.1	11
74	Human serine racemase is allosterically modulated by NADH and reduced nicotinamide derivatives. <i>Biochemical Journal</i> , 2016, 473, 3505-3516.	1.7	11
75	Characterization of the Heme Pocket Structure and Ligand Binding Kinetics of Non-symbiotic Hemoglobins from the Model Legume <i>Lotus japonicus</i> . <i>Frontiers in Plant Science</i> , 2017, 8, 407.	1.7	11
76	Human serine racemase is nitrosylated at multiple sites. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2018, 1866, 813-821.	1.1	11
77	Trapping Hemoglobin in Rigid Matrices: Fine Tuning of Oxygen Binding Properties by Modulation of Encapsulation Protocols. <i>Artificial Cells, Blood Substitutes, and Biotechnology</i> , 2007, 35, 69-79.	0.9	10
78	Ligand-Induced Tertiary Relaxations During the T-to-R Quaternary Transition in Hemoglobin. <i>Journal of Physical Chemistry B</i> , 2008, 112, 12790-12794.	1.2	10
79	Correlation of protein functional properties in the crystal and in solution: The case study of T-state hemoglobin. <i>Protein Science</i> , 2009, 11, 1845-1849.	3.1	10
80	Structural and functional properties of Antarctic fish cytoglobins-1: Cold-reactivity in multi-ligand reactions. <i>Computational and Structural Biotechnology Journal</i> , 2020, 18, 2132-2144.	1.9	10
81	Mycobacterial and Human Ferrous Nitrobindins: Spectroscopic and Reactivity Properties. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1674.	1.8	10
82	Low affinity PEGylated hemoglobin from <i>Trematomus bernacchii</i> , a model for hemoglobin-based blood substitutes. <i>BMC Biochemistry</i> , 2011, 12, 66.	4.4	9
83	Electrophoretic analysis of PEGylated hemoglobin-based blood substitutes. <i>Analytical Biochemistry</i> , 2011, 408, 118-123.	1.1	9
84	â€˜Coolâ€™ adaptations to cold environments: globins in Notothenioidei (Actynopterygii, Perciformes). <i>Hydrobiologia</i> , 2015, 761, 293-312.	1.0	9
85	Polymerization of hemoglobins in Arctic fish: <i>Lycodes reticulatus</i> and <i>Gadus morhua</i> . <i>IUBMB Life</i> , 2011, 63, 346-354.	1.5	8
86	The allosteric interplay between S-nitrosylation and glycine binding controls the activity of human serine racemase. <i>FEBS Journal</i> , 2021, 288, 3034-3054.	2.2	8
87	3-Bromo-Isoxazoline Derivatives Inhibit GAPDH Enzyme in PDAC Cells Triggering Autophagy and Apoptotic Cell Death. <i>Cancers</i> , 2022, 14, 3153.	1.7	8
88	Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7. <i>F1000Research</i> , 2015, 4, 45.	0.8	7
89	Tertiary and quaternary effects in the allosteric regulation of animal hemoglobins. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2013, 1834, 1860-1872.	1.1	6
90	Cold-Adaptation Signatures in the Ligand Rebinding Kinetics to the Truncated Hemoglobin of the Antarctic Bacterium <i>Pseudoalteromonas haloplanktis</i> TAC125. <i>Journal of Physical Chemistry B</i> , 2018, 122, 11649-11661.	1.2	6

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91	Polymerized and polyethylene glycol-conjugated hemoglobins: A globin-based calibration curve for dynamic light scattering analysis. <i>Analytical Biochemistry</i> , 2010, 401, 266-270.	1.1	5
92	A Novel Assay for Phosphoserine Phosphatase Exploiting Serine Acetyltransferase as the Coupling Enzyme. <i>Life</i> , 2021, 11, 485.	1.1	5
93	Immobilization of Proteins in Ormosil Gels: Functional Properties and Applications. <i>Current Organic Chemistry</i> , 2015, 19, 1677-1683.	0.9	5
94	Characterization of Ligand Migration Mechanisms inside Hemoglobins from the Analysis of Geminate Rebinding Kinetics. <i>Methods in Enzymology</i> , 2008, 437, 329-345.	0.4	4
95	New isoforms of human mitochondrial transcription factor A detected in normal and tumoral cells. <i>Mitochondrion</i> , 2011, 11, 287-295.	1.6	4
96	Electrostatic Tuning of the Ligand Binding Mechanism by Glu27 in Nitrophorin 7. <i>Scientific Reports</i> , 2018, 8, 10855.	1.6	4
97	Structural and Functional Characterization of the Globin-Coupled Sensors of <i>Azotobacter vinelandii</i> and <i>Bordetella pertussis</i> . <i>Antioxidants and Redox Signaling</i> , 2020, 32, 378-395.	2.5	4
98	Augmentation Therapy with Alpha-1 Antitrypsin: Present and Future of Production, Formulation, and Delivery. <i>Current Medicinal Chemistry</i> , 2022, 29, 385-410.	1.2	4
99	Structural Bases for the Regulation of CO Binding in the Archaeal Protoglobin from <i>Methanosarcina acetivorans</i> . <i>PLoS ONE</i> , 2015, 10, e0125959.	1.1	3
100	Functional characterisation of the haemoglobins of the migratory notothenioid fish <i>Dissostichus eleginoides</i> . <i>Hydrobiologia</i> , 2015, 761, 315-333.	1.0	3
101	Human serine racemase is inhibited by glyceraldehyde 3-phosphate, but not by glyceraldehyde 3-phosphate dehydrogenase. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2021, 1869, 140544.	1.1	3
102	A photosensitizing fusion protein with targeting capabilities. <i>Biomolecular Concepts</i> , 2022, 13, 175-182.	1.0	3
103	Targeted Biologics: The New Frontier for Precision Therapy. <i>Current Medicinal Chemistry</i> , 2022, 29, 383-384.	1.2	2
104	Probing the Role of Murine Neuroglobin CDloopâ€D-Helix Unit in CO Ligand Binding and Structural Dynamics. <i>ACS Chemical Biology</i> , 0, , .	1.6	2
105	Ormosil gels doped with engineered catechol 1,2 dioxygenases for chlorocatechol bioremediation. <i>Biotechnology and Applied Biochemistry</i> , 2014, 61, 297-303.	1.4	1
106	Biochemistry of Hemoglobin. , 2013, , 55-73.		1
107	Human Serine Racemase Weakly Binds the Third PDZ Domain of PSD-95. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4959.	1.8	1
108	Editorial (Thematic Issue: Organic Polymeric Matrices for the Three-dimensional Immobilization of) <i>Tj ETQq0 0 0 rgBT/Overlock 10 Tf 50</i>	0.9	0

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109	Unusually Fast bis-Histidyl Coordination in a Plant Hemoglobin. International Journal of Molecular Sciences, 2021, 22, 2740.	1.8	0
110	Monitoring the Tâ€R transition of human hemoglobin encapsulated in silica gels. FASEB Journal, 2007, 21, A637.	0.2	0