

Stefano Bruno

List of Publications by Year in descending order

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110
papers

2,919
citations

201385

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214527

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all docs

114
docs citations

114
times ranked

3183
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	From hemoglobin allosterity to hemoglobin-based oxygen carriers. <i>Molecular Aspects of Medicine</i> , 2022, 84, 101050.	2.7	15
3	Targeted Biologics: The New Frontier for Precision Therapy. <i>Current Medicinal Chemistry</i> , 2022, 29, 383-384.	1.2	2
4	A photosensitizing fusion protein with targeting capabilities. <i>Biomolecular Concepts</i> , 2022, 13, 175-182.	1.0	3
5	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
6	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
7	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
8	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
9	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
10	Mycobacterial and Human Ferrous Nitrobindins: Spectroscopic and Reactivity Properties. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1674.	1.8	10
11	Unusually Fast bis-Histidyl Coordination in a Plant Hemoglobin. <i>International Journal of Molecular Sciences</i> , 2021, 22, 2740.	1.8	0
12	A Novel Assay for Phosphoserine Phosphatase Exploiting Serine Acetyltransferase as the Coupling Enzyme. <i>Life</i> , 2021, 11, 485.	1.1	5
13	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
14	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
15	Mycobacterial and Human Nitrobindins: Structure and Function. <i>Antioxidants and Redox Signaling</i> , 2020, 33, 229-246.	2.5	17
16	Targeting the Eph/Ephrin System as Anti-Inflammatory Strategy in IBD. <i>Frontiers in Pharmacology</i> , 2019, 10, 691.	1.6	22
17	Enzymes from Marine Polar Regions and Their Biotechnological Applications. <i>Marine Drugs</i> , 2019, 17, 544.	2.2	69
18	Covalent Inhibitors of <i>Plasmodium falciparum</i> Glyceraldehyde 3-Phosphate Dehydrogenase with Antimalarial Activity in Vitro. <i>ACS Medicinal Chemistry Letters</i> , 2019, 10, 590-595.	1.3	13

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19	More than a Confinement: "Soft" and "Hard" Enzyme Entrapment Modulates Biological Catalyst Function. <i>Catalysts</i> , 2019, 9, 1024.	1.6	12
20	Human serine racemase is nitrosylated at multiple sites. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2018, 1866, 813-821.	1.1	11
21	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
22	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
23	Protein carbonylation detection methods: A comparison. <i>Data in Brief</i> , 2018, 19, 2215-2220.	0.5	20
24	Electrostatic Tuning of the Ligand Binding Mechanism by Glu27 in Nitrophorin 7. <i>Scientific Reports</i> , 2018, 8, 10855.	1.6	4
25	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
26	The Energy Landscape of Human Serine Racemase. <i>Frontiers in Molecular Biosciences</i> , 2018, 5, 112.	1.6	28
27	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
28	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
29	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
30	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
31	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
32	The Greenland shark <i>Somniosus microcephalus</i> Hemoglobins and ligand-binding properties. <i>PLoS ONE</i> , 2017, 12, e0186181.	1.1	27
33	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
34	Human serine racemase is allosterically modulated by NADH and reduced nicotinamide derivatives. <i>Biochemical Journal</i> , 2016, 473, 3505-3516.	1.7	11
35	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
36	Editorial (Thematic Issue: Organic Polymeric Matrices for the Three-dimensional Immobilization of) <i>Trends in Biotechnology</i> , 2016, 34, 10-11.	0.9	10

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37	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
38	Experiments on Hemoglobin in Single Crystals and Silica Gels Distinguish among Allosteric Models. <i>Biophysical Journal</i> , 2015, 109, 1264-1272.	0.2	33
39	Functional characterisation of the haemoglobins of the migratory notothenioid fish <i>Dissostichus eleginoides</i> . <i>Hydrobiologia</i> , 2015, 761, 315-333.	1.0	3
40	Regulation of human serine racemase activity and dynamics by halides, ATP and malonate. <i>Amino Acids</i> , 2015, 47, 163-173.	1.2	21
41	â€˜Coolâ€™ adaptations to cold environments: globins in Notothenioidei (Actinopterygii, Perciformes). <i>Hydrobiologia</i> , 2015, 761, 293-312.	1.0	9
42	From protein structure to function via single crystal optical spectroscopy. <i>Frontiers in Molecular Biosciences</i> , 2015, 2, 12.	1.6	14
43	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
44	Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7. <i>F1000Research</i> , 2015, 4, 45.	0.8	7
45	Immobilization of Proteins in Ormosil Gels: Functional Properties and Applications. <i>Current Organic Chemistry</i> , 2015, 19, 1677-1683.	0.9	5
46	Immobilization of Proteins in Silica Gel: Biochemical and Biophysical Properties. <i>Current Organic Chemistry</i> , 2015, 19, 1653-1668.	0.9	20
47	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
48	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
49	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
50	Targeting Cystalyisin, a Virulence Factor of <i>Treponema denticola</i> Supported Periodontitis. <i>ChemMedChem</i> , 2014, 9, 1501-1511.	1.6	26
51	<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
52	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
53	CO Rebinding Kinetics and Molecular Dynamics Simulations Highlight Dynamic Regulation of Internal Cavities in Human Cytochrome b5. <i>PLoS ONE</i> , 2013, 8, e49770.	1.1	28
54	Biochemistry of Hemoglobin. , 2013, , 55-73.		1

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55	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
56	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
57	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
58	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
59	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
60	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
61	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
62	New isoforms of human mitochondrial transcription factor A detected in normal and tumoral cells. <i>Mitochondrion</i> , 2011, 11, 287-295.	1.6	4
63	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
64	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
65	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
66	Structural heterogeneity and ligand gating in ferric <i>methanosarcina acetivorans</i> protoglobin mutants. <i>IUBMB Life</i> , 2011, 63, 287-294.	1.5	15
67	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
68	Electrophoretic analysis of PEGylated hemoglobin-based blood substitutes. <i>Analytical Biochemistry</i> , 2011, 408, 118-123.	1.1	9
69	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
70	Protein crystal microspectrophotometry. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 734-741.	1.1	11
71	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
72	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

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73	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
74	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
75	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
76	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
77	PEGylation Promotes Hemoglobin Tetramer Dissociation. <i>Bioconjugate Chemistry</i> , 2009, 20, 1356-1366.	1.8	45
78	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
79	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
80	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
81	High and low oxygen affinity conformations of T state hemoglobin. <i>Protein Science</i> , 2008, 10, 2401-2407.	3.1	74
82	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
83	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
84	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
85	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
86	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
87	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
88	A Review of Low Back Pain and Musculoskeletal Disorders among Italian Nursing Personnel. <i>Industrial Health</i> , 2007, 45, 637-644.	0.4	120
89	Musculoskeletal Complaints among Italian X-ray Technologists. <i>Industrial Health</i> , 2007, 45, 705-708.	0.4	31
90	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

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91	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.	6.6	54
92	Ligand Migration in Nonsymbiotic Hemoglobin AHb1 from Arabidopsis thaliana. Journal of Physical Chemistry B, 2007, 111, 12582-12590.	1.2	27
93	Monitoring the T \leftrightarrow R transition of human hemoglobin encapsulated in silica gels. FASEB Journal, 2007, 21, A637.	0.2	0
94	Time-resolved methods in Biophysics. 2. Monitoring haem proteins at work with nanosecond laser flash photolysis. Photochemical and Photobiological Sciences, 2006, 5, 1109.	1.6	53
95	Circular dichroism spectroscopy of tertiary and quaternary conformations of human hemoglobin entrapped in wet silica gels. Protein Science, 2006, 15, 1961-1967.	3.1	27
96	Structures of $\hat{\Gamma}^3$ -Aminobutyric Acid (GABA) Aminotransferase, a Pyridoxal 5 $\hat{\alpha}$ ² -Phosphate, and [2Fe-2S] Cluster-containing Enzyme, Complexed with $\hat{\Gamma}^3$ -Ethynyl-GABA and with the Antiepilepsy Drug Vigabatrin. Journal of Biological Chemistry, 2004, 279, 363-373.	1.6	129
97	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.	3.3	110
98	Functional and Spectroscopic Characterization of Half-Liganded Iron $\hat{\nu}$ Zinc Hybrid Hemoglobin: Evidence for Conformational Plasticity within the T State,. Biochemistry, 2003, 42, 8272-8288.	1.2	49
99	Snapshots of the Cystine Lyase C-DES during Catalysis. Journal of Biological Chemistry, 2003, 278, 357-365.	1.6	27
100	Crystals of Tryptophan Indole-Lyase and Tyrosine Phenol-Lyase Form Stable Quinonoid Complexes. Journal of Biological Chemistry, 2002, 277, 21592-21597.	1.6	26
101	Structural basis for the oxidation of thiosulfate by a sulfur cycle enzyme. EMBO Journal, 2002, 21, 5599-5610.	3.5	143
102	Functional Characterization of Heme Proteins Encapsulated in Wet Nanoporous Silica Gels. Journal of Nanoscience and Nanotechnology, 2001, 1, 407-415.	0.9	35
103	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 $\hat{\Gamma}^1\hat{\Gamma}^2$ Interface. Biochemistry, 2001, 40, 12357-12368.	1.2	38
104	Oxygen binding by single red blood cells from the red-eared turtle Trachemys scripta. Journal of Applied Physiology, 2001, 90, 1679-1684.	1.2	13
105	Enhanced geminate ligand rebinding upon photo-dissociation of silica gel-embedded myoglobin $\hat{\nu}$ CO. Chemical Physics Letters, 2001, 346, 430-436.	1.2	25
106	Site-directed mutations of human hemoglobin at residue 35 $\hat{\Gamma}^2$: A residue at the intersection of the $\hat{\Gamma}^1\hat{\Gamma}^2$, $\hat{\Gamma}^1\hat{\Gamma}^2$, and $\hat{\Gamma}^1\hat{\Gamma}^2$ interfaces. Protein Science, 2001, 10, 1847-1855.	3.1	17
107	Functional Properties of the Active Core of Human Cystathionine $\hat{\Gamma}^2$ -Synthase Crystals. Journal of Biological Chemistry, 2001, 276, 16-19.	1.6	58
108	Oxygen binding by $\hat{\Gamma}^1(\text{Fe}^{2+})_2\hat{\Gamma}^2(\text{Ni}^{2+})_2$ hemoglobin crystals. Protein Science, 2000, 9, 683-692.	3.1	13

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109	Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7. F1000Research, 0, 4, 45.	0.8	13
110	Probing the Role of Murine Neuroglobin CDloopâ€™D-Helix Unit in CO Ligand Binding and Structural Dynamics. ACS Chemical Biology, 0, , .	1.6	2