Beatrice Vallone

List of Publications by Year
in descending order

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		136885	138417
86	3,584	32	58
papers	citations	h-index	g-index

86	86	86	3433
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Neuroglobin, nitric oxide, and oxygen: Functional pathways and conformational changes. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 8483-8488.	3.3	233
2	Complex landscape of protein structural dynamics unveiled by nanosecond Laue crystallography. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8704-8709.	3.3	195
3	The structure of carbonmonoxy neuroglobin reveals a heme-sliding mechanism for control of ligand affinity. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17351-17356.	3.3	182
4	The structure of murine neuroglobin: Novel pathways for ligand migration and binding. Proteins: Structure, Function and Bioinformatics, 2004, 56, 85-92.	1.5	170
5	The structure of ActVA-Orf6, a novel type of monooxygenase involved in actinorhodin biosynthesis. EMBO Journal, 2003, 22, 205-215.	3.5	150
6	The role of cavities in protein dynamics: Crystal structure of a photolytic intermediate of a mutant myoglobin. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 2058-2063.	3.3	143
7	Extended Molecular Dynamics Simulation of the Carbon Monoxide Migration in Sperm Whale Myoglobin. Biophysical Journal, 2004, 86, 3855-3862.	0.2	129
8	Photoconvertible Fluorescent Protein EosFP: Biophysical Properties and Cell Biology Applications. Photochemistry and Photobiology, 2006, 82, 351.	1.3	118
9	Extended subnanosecond structural dynamics of myoglobin revealed by Laue crystallography. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4924-4929.	3.3	111
10	Controlling Ligand Binding in Myoglobin by Mutagenesis. Journal of Biological Chemistry, 2002, 277, 7509-7519.	1.6	101
11	Cryo-EM structure of the human ferritinâ€“transferrin receptor 1 complex. Nature Communications, 2019, 10, 1121.	5.8	100
12	Neuroglobin, seven years after. Cellular and Molecular Life Sciences, 2007, 64, 1259-1268.	2.4	94
13	Molecular Dynamics Simulation of Sperm Whale Myoglobin: Effects of Mutations and Trapped CO on the Structure and Dynamics of Cavities. Biophysical Journal, 2005, 89, 465-474.	0.2	93
14	Free energy of burying hydrophobic residues in the interface between protein subunits. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 6103-6107.	3.3	89
15	A globin for the brain. FASEB Journal, 2006, 20, 2192-2197.	0.2	87
16	Structural Dynamics of Ligand Diffusion in the Protein Matrix: A Study on a New Myoglobin Mutant Y(B10) Q(E7) R(E10). Biophysical Journal, 1999, 76, 1259-1269.	0.2	79
17	The structures of deoxy human haemoglobin and the mutant Hb TyrÎ±42His at 120â€…K. Acta Crystallographica Section D: Biological Crystallography, 2000, 56, 805-811.	2.5	75
18	Glyphosate Resistance by Engineering the Flavoenzyme Glycine Oxidase. Journal of Biological Chemistry, 2009, 284, 36415-36423.	1.6	70

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19	Investigating the Structural Plasticity of a Cytochrome P450. Journal of Biological Chemistry, 2009, 284, 29170-29179.	1.6	66
20	X-ray structure analysis of a metalloprotein with enhanced active-site resolution using in situ x-ray absorption near edge structure spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 6211-6216.	3.3	64
21	Pattern of cavities in globins: The case of human hemoglobin. Biopolymers, 2009, 91, 1097-1107.	1.2	57
22	Red fluorescent protein eqFP611 and its genetically engineered dimeric variants. Journal of Biomedical Optics, 2005, 10, 014003.	1.4	56
23	Insights into DNA Replication. Structure, 2004, 12, 2001-2008.	1.6	52
24	The structure of the endoribonuclease XendoU: From small nucleolar RNA processing to severe acute respiratory syndrome coronavirus replication. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12365-12370.	3.3	51
25	An X-ray diffraction and X-ray absorption spectroscopy joint study of neuroglobin. Archives of Biochemistry and Biophysics, 2008, 475, 7-13.	1.4	50
26	The Allosteric Properties of Hemoglobin: Insights from Natural and Site Directed Mutants. Current Protein and Peptide Science, 2006, 7, 17-45.	0.7	46
27	Electron transfer to the binuclear center in cytochrome oxidase: catalytic significance and evidence for an additional intermediate.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 7410-7413.	3.3	45
28	Neuroglobin: Enzymatic reduction and oxygen affinity. Biochemical and Biophysical Research Communications, 2008, 367, 893-898.	1.0	43
29	Time-resolved methods in biophysics. 6. Time-resolved Laue crystallography as a tool to investigate photo-activated protein dynamics. Photochemical and Photobiological Sciences, 2007, 6, 1047-1056.	1.6	42
30	Molecular Dynamics Simulation of Deoxy and Carboxy Murine Neuroglobin in Water. Biophysical Journal, 2007, 93, 434-441.	0.2	42
31	Chromophore-Protein Interactions in the Anthozoan Green Fluorescent Protein asFP499. Biophysical Journal, 2006, 91, 4210-4220.	0.2	40
32	Engineering Ascaris hemoglobin oxygen affinity in sperm whale myoglobin: role of tyrosine B10. FEBS Letters, 1994, 352, 63-66.	1.3	37
33	The Monod-Wyman-Changeux allosteric model accounts for the quaternary transition dynamics in wild type and a recombinant mutant human hemoglobin. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14894-14899.	3.3	33
34	The Structure of Neuroglobin at High Xe and Kr Pressure Reveals Partial Conservation of Globin Internal Cavities. Biophysical Journal, 2009, 97, 1700-1708.	0.2	32
35	Exploring Chromophoreâ"Protein Interactions in Fluorescent Protein cmFP512 fromCerianthus membranaceus:Â X-ray Structure Analysis and Optical Spectroscopyâ€. Biochemistry, 2006, 45, 12942-12953.	1.2	31
36	Humanized archaeal ferritin as a tool for cell targeted delivery. Nanoscale, 2017, 9, 647-655.	2.8	29

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37	Polarized X-ray absorption spectroscopy of the low-temperature photoproduct of carbonmonoxy-myoglobin. Journal of Synchrotron Radiation, 1999, 6, 1138-1147.	1.0	27
38	Modulation of ligand binding in engineered human hemoglobin distal pocket. Journal of Molecular Biology, 1999, 290, 515-524.	2.0	27
39	Crystallization and preliminary X-ray diffraction analysis of the red fluorescent protein eqFP611. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 1253-1255.	2.5	27
40	Does picosecond protein dynamics have survival value?. Trends in Biochemical Sciences, 1999, 24, 253-255.	3.7	26
41	Molecular Dynamics Simulation of the Neuroglobin Crystal: Comparison with the Simulation in Solution. Biophysical Journal, 2008, 95, 4157-4162.	0.2	26
42	Crystallographic Studies with Xenon and Nitrous Oxide Provide Evidence for Protein-dependent Processes in the Mechanisms of General Anesthesia. Anesthesiology, 2014, 121, 1018-1027.	1.3	25
43	Probing the Î±1Î²2 Interface of Human Hemoglobin by Mutagenesis. Journal of Biological Chemistry, 1996, 271, 12472-12480.	1.6	21
44	Large-scale purification and crystallization of the endoribonuclease XendoU: troubleshooting with His-tagged proteins. Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 298-301.	0.7	19
45	Functional analysis and crystallographic structure of clotrimazole bound OleP, a cytochrome P450 epoxidase from Streptomyces antibioticus involved in oleandomycin biosynthesis. Biochimica Et Biophysica Acta - General Subjects, 2016, 1860, 465-475.	1.1	19
46	Azole Drugs Trap Cytochrome P450 EryK in Alternative Conformational States,. Biochemistry, 2010, 49, 9199-9206.	1.2	18
47	Engineering the internal cavity of neuroglobin demonstrates the role of the haem-sliding mechanism. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 1640-1648.	2.5	16
48	Is the Internal Electron Transfer the Rate-Limiting Step in the Catalytic Cycle of Cytochrome c Oxidase?. Annals of the New York Academy of Sciences, 1988, 550, 161-166.	1.8	14
49	Neuroglobinâ€“prion protein interaction: what's the function?. Journal of Peptide Science, 2011, 17, 387-391.	0.8	14
50	Mapping Hydrophobic Tunnels and Cavities in Neuroglobin with Noble Gas under Pressure. Biophysical Journal, 2017, 113, 2199-2206.	0.2	14
51	Substrateâ€induced conformational change in cytochrome P450 OleP. FASEB Journal, 2019, 33, 1787-1800.	0.2	14
52	Analysis of the effect of microgravity on protein crystal quality: the case of a myoglobin triple mutant. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 982-988.	2.5	13
53	Is neuroglobin a signal transducer?. IUBMB Life, 2008, 60, 410-413.	1.5	13
54	Structural Dynamics of Myoglobin. Methods in Enzymology, 2008, 437, 397-416.	0.4	13

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55	Failure of apoptosis-inducing factor to act as neuroglobin reductase. Biochemical and Biophysical Research Communications, 2009, 390, 121-124.	1.0	13
56	Structure of the adenylation domain Thr1 involved in the biosynthesis of 4â€chlorothreonine in Streptomyces sp. <scp>OH</scp>â€5093â€”protein flexibility and molecular bases of substrate specificity. FEBS Journal, 2017, 284, 2981-2999.	2.2	13
57	Lack of orientation selectivity of the heme insertion in murine neuroglobin revealed by resonance Raman spectroscopy. FEBS Journal, 2020, 287, 4082-4097.	2.2	13
58	Control of Heme Reactivity by Diffusion:Â Structural Basis and Functional Characterization in Hemoglobin Mutantsâ€,â€¡. Biochemistry, 2001, 40, 14449-14458.	1.2	12
59	Polarized X-ray Absorption Near-Edge Structure Spectroscopy of Neuroglobin and Myoglobin Single Crystals. Journal of Physical Chemistry B, 2010, 114, 13223-13231.	1.2	12
60	Neuroglobin, clues to function and mechanism. Molecular Aspects of Medicine, 2022, 84, 101055.	2.7	12
61	Site-directed mutagenesis in hemoglobin. FEBS Letters, 1993, 324, 117-122.	1.3	11
62	Subcellular localization of the five members of the human steroid 5Î±-reductase family. Biochimie Open, 2017, 4, 99-106.	3.2	11
63	Proximal and distal control for ligand binding in neuroglobin: role of the CD loop and evidence for His64 gating. Scientific Reports, 2019, 9, 5326.	1.6	10
64	Modulation of Cytochrome c Oxidase Activity by an Electrical Transmembrane Gradient. Annals of the New York Academy of Sciences, 1988, 550, 269-276.	1.8	8
65	Crystallization and preliminary X-ray diffraction studies of a monooxygenase fromStreptomyces coelicolorA3(2) involved in the biosynthesis of the polyketide actinorhodin. Acta Crystallographica Section D: Biological Crystallography, 2000, 56, 481-483.	2.5	8
66	Crystallization and X-ray diffraction measurements of a thermophilic archaeal recombinant amidase fromSulfolobus solfataricusMT4. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 1036-1037.	2.5	8
67	Ligand pathways in neuroglobin revealed by low-temperature photodissociation and docking experiments. IUCrJ, 2019, 6, 832-842.	1.0	8
68	Cloning, Expression, Purification, Crystallization and Preliminary X-Ray Crystallographic Analysis of C-12 Hydroxylase EryK from Saccharopolyspora erythraea. Protein and Peptide Letters, 2008, 15, 1138-1141.	0.4	7
69	Determinants of neuroglobin plasticity highlighted by joint coarse-grained simulations and high pressure crystallography. Scientific Reports, 2017, 7, 1858.	1.6	7
70	Dissecting the Cytochrome P450 OleP Substrate Specificity: Evidence for a Preferential Substrate. Biomolecules, 2020, 10, 1411.	1.8	6
71	Point Mutations at a Key Site Alter the Cytochrome P450 OleP Structural Dynamics. Biomolecules, 2022, 12, 55.	1.8	6
72	Haemoglobin Engineering: For fun and money. Current Biology, 1995, 5, 462-465.	1.8	5

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73	Low-cost equilibrium unfolding of heme proteins using 2 Î¼l samples. Analytical Biochemistry, 2013, 443, 13-15.	1.1	5
74	Redirecting P450 EryK Specificity by Rational Site-Directed Mutagenesis. Biochemistry, 2013, 52, 3678-3687.	1.2	4
75	An Open Flow Helium Cryostat for Synchrotron X-ray Diffraction Experiments. Journal of Physics: Conference Series, 2013, 425, 012015.	0.3	4
76	Effects of Y361â€autoâ€phosphorylation on structural plasticity of the HIPK2 kinase domain. Protein Science, 2018, 27, 725-737.	3.1	4
77	Roles for holes: are cavities in proteins mere packing defects?. Italian Journal of Biochemistry, 2004, 53, 46-52.	0.3	4
78	The kinetics of electron entry in cytochromec oxidase. Biology of Metals, 1990, 3, 118-121.	1.1	2
79	The carbon monoxide derivative of human hemoglobin carrying the double mutation LeuB10â†'Tyr and HisE7â†'Gln on Î± and Î² chains probed by infrared spectroscopy. Archives of Biochemistry and Biophysics, 2002, 402, 59-64.	1.4	2
80	1H, 15N and 13C Backbone resonance assignments of murine met-neuroglobin, free and in complex with cyanide. Biomolecular NMR Assignments, 2015, 9, 153-156.	0.4	2
81	Probing the Role of Murine Neuroglobin CDloopâ€"D-Helix Unit in CO Ligand Binding and Structural Dynamics. ACS Chemical Biology, 0, , .	1.6	2
82	ATP-Induced Spectral Perturbation in Cytochrome Oxidase.. Annals of the New York Academy of Sciences, 1988, 550, 118-123.	1.8	1
83	Reconstitution of cytochrome c oxidase into phospholipid vesicles: Effect of detergents. Bioelectrochemistry, 1990, 23, 265-270.	1.0	1
84	Dimeric variants of the red fluorescent protein eqFP611 generated by site-directed mutagenesis. , 2004, 5329, 23.		1
85	Time-resolved crystallography for protein structure: the case of heme proteins. Rendiconti Lincei, 2013, 24, 101-107.	1.0	1
86	Reconstitution of cytochrome c oxidase into phospholipid vesicles: effect of detergents. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1990, 298, 265-270.	0.3	0