

Stefania Abbruzzetti

List of Publications by Year in descending order

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Version: 2024-02-01

112
papers

2,610
citations

159585

30
h-index

254184

43
g-index

116
all docs

116
docs citations

116
times ranked

2451
citing authors

#	ARTICLE	IF	CITATIONS
1	From hemoglobin allostery to hemoglobin-based oxygen carriers. <i>Molecular Aspects of Medicine</i> , 2022, 84, 101050.	6.4	15
2	A photosensitizing fusion protein with targeting capabilities. <i>Biomolecular Concepts</i> , 2022, 13, 175-182.	2.2	3
3	A Double Payload Complex between Hypericin and All-trans Retinoic Acid in the $\hat{\imath}^2$ -Lactoglobulin Protein. <i>Antibiotics</i> , 2022, 11, 282.	3.7	5
4	Photodynamic treatment of pathogens. <i>Rivista Del Nuovo Cimento</i> , 2022, 45, 407-459.	5.7	8
5	The Interaction of Hypericin with SARS-CoV-2 Reveals a Multimodal Antiviral Activity. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 14025-14032.	8.0	17
6	Versatile Supramolecular Complex for Targeted Antimicrobial Photodynamic Inactivation. <i>Bioconjugate Chemistry</i> , 2022, 33, 666-676.	3.6	3
7	A red-green photochromic bacterial protein as a new contrast agent for improved photoacoustic imaging. <i>Photoacoustics</i> , 2022, 26, 100358.	7.8	2
8	Mycobacterial and Human Ferrous Nitrobindins: Spectroscopic and Reactivity Properties. <i>International Journal of Molecular Sciences</i> , 2021, 22, 1674.	4.1	10
9	Development and Characterization of Novel Probes for Photoacoustic Microscopy. <i>Biophysical Journal</i> , 2021, 120, 363a.	0.5	1
10	Unusually Fast bis-Histidyl Coordination in a Plant Hemoglobin. <i>International Journal of Molecular Sciences</i> , 2021, 22, 2740.	4.1	0
11	Tetramethylbenzidine: An Acoustogenic Photoacoustic Probe for Reactive Oxygen Species Detection. <i>Sensors</i> , 2020, 20, 5952.	3.8	15
12	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.	4.1	10
13	A Plant Gene Encoding One-Heme and Two-Heme Hemoglobins With Extreme Reactivities Toward Diatomic Gases and Nitrite. <i>Frontiers in Plant Science</i> , 2020, 11, 600336.	3.6	8
14	Photodynamic action of <i>Hypericum perforatum</i> hydrophilic extract against <i>Staphylococcus aureus</i> . <i>Photochemical and Photobiological Sciences</i> , 2020, 19, 324-331.	2.9	9
15	Photosensitizing proteins for antibacterial photodynamic inactivation. <i>Translational Biophotonics</i> , 2020, 2, e201900031.	2.7	15
16	A Novel Targeting Approach for Cancer Treatment Based on Photodynamic Therapy. <i>Biophysical Journal</i> , 2020, 118, 313a.	0.5	0
17	Photoacoustic Selective Plane Illumination Microscopy. <i>Biophysical Journal</i> , 2020, 118, 175a.	0.5	0
18	Mycobacterial and Human Nitrobindins: Structure and Function. <i>Antioxidants and Redox Signaling</i> , 2020, 33, 229-246.	5.4	17

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19	Dynamics and efficiency of photoswitching in biliverdin-binding phytochromes. <i>Photochemical and Photobiological Sciences</i> , 2019, 18, 2484-2496.	2.9	18
20	Enhanced photosensitizing properties of protein bound curcumin. <i>Life Sciences</i> , 2019, 233, 116710.	4.3	22
21	Apomyoglobin is an efficient carrier for zinc phthalocyanine in photodynamic therapy of tumors. <i>Biophysical Chemistry</i> , 2019, 253, 106228.	2.8	16
22	Hypericin-Apomyoglobin: An Enhanced Photosensitizer Complex for the Treatment of Tumor Cells. <i>Biomacromolecules</i> , 2019, 20, 2024-2033.	5.4	22
23	More than a Confinement: "Soft" and "Hard" Enzyme Entrapment Modulates Biological Catalyst Function. <i>Catalysts</i> , 2019, 9, 1024.	3.5	12
24	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.	2.6	6
25	Study of Tumor Cellular Damage Induced by Photosensitizing Molecules. <i>Biophysical Journal</i> , 2018, 114, 535a.	0.5	2
26	Serum albumins are efficient delivery systems for the photosensitizer hypericin in photosensitization-based treatments against <i>Staphylococcus aureus</i> . <i>Food Control</i> , 2018, 94, 254-262.	5.5	28
27	Electrostatic Tuning of the Ligand Binding Mechanism by Glu27 in Nitrophorin 7. <i>Scientific Reports</i> , 2018, 8, 10855.	3.3	4
28	Oxygen-Insensitive Aggregates of Pt(II) Complexes as Phosphorescent Labels of Proteins with Luminescence Lifetime-Based Readouts. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 24361-24369.	8.0	11
29	Tuning the local solvent composition at a drug carrier surface: the effect of dimethyl sulfoxide/water mixture on the photofunctional properties of hypericin- β -lactoglobulin complexes. <i>Journal of Materials Chemistry B</i> , 2017, 5, 1633-1641.	5.8	16
30	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.	3.6	11
31	The Greenland shark <i>Somniosus microcephalus</i> Hemoglobins and ligand-binding properties. <i>PLoS ONE</i> , 2017, 12, e0186181.	2.5	27
32	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.	5.2	19
33	Labeling and Selective Inactivation of Gram-Positive Bacteria Employing Bimodal Photoprobes with Dual Readouts. <i>Chemistry - A European Journal</i> , 2016, 22, 5243-5252.	3.3	34
34	Subdiffraction localization of a nanostructured photosensitizer in bacterial cells. <i>Scientific Reports</i> , 2015, 5, 15564.	3.3	35
35	Structural Bases for the Regulation of CO Binding in the Archaeal Protoglobin from <i>Methanosarcina acetivorans</i> . <i>PLoS ONE</i> , 2015, 10, e0125959.	2.5	3
36	Experiments on Hemoglobin in Single Crystals and Silica Gels Distinguish among Allosteric Models. <i>Biophysical Journal</i> , 2015, 109, 1264-1272.	0.5	33

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37	Functional characterisation of the haemoglobins of the migratory notothenioid fish <i>Dissostichus eleginoides</i> . <i>Hydrobiologia</i> , 2015, 761, 315-333.	2.0	3
38	A caged substrate peptide for matrix metalloproteinases. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 300-307.	2.9	9
39	Photochromic conversion in a red/green cyanobacteriochrome from <i>Synechocystis</i> PCC6803: quantum yields in solution and photoswitching dynamics in living <i>E. coli</i> cells. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 229-237.	2.9	33
40	Photofunctional proteins: how nature keeps the laboratories updated about light and life. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 198-199.	2.9	0
41	The complex of hypericin with \hat{I}^2 -lactoglobulin has antimicrobial activity with potential applications in dairy industry. <i>Journal of Dairy Science</i> , 2015, 98, 89-94.	3.4	36
42	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.	2.4	20
43	Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7. <i>F1000Research</i> , 2015, 4, 45.	1.6	7
44	Immobilization of Proteins in Silica Gel: Biochemical and Biophysical Properties. <i>Current Organic Chemistry</i> , 2015, 19, 1653-1668.	1.6	20
45	The Dark Recovery Rate in the Photocycle of the Bacterial Photoreceptor YtvA Is Affected by the Cellular Environment and by Hydration. <i>PLoS ONE</i> , 2014, 9, e107489.	2.5	19
46	Experimental basis for a new allosteric model for multisubunit proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 12758-12763.	7.1	46
47	Ligand Uptake Modulation by Internal Water Molecules and Hydrophobic Cavities in Hemoglobins. <i>Journal of Physical Chemistry B</i> , 2014, 118, 1234-1245.	2.6	25
48	A self-assembled nanostructured material with photosensitising properties. <i>RSC Advances</i> , 2013, 3, 17874.	3.6	30
49	Kinetics and computational studies of ligand migration in nitrophorin 7 and its \hat{I}^3 mutant. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2013, 1834, 1711-1721.	2.3	10
50	Ligand migration through heme protein cavities: insights from laser flash photolysis and molecular dynamics simulations. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 10686.	2.8	18
51	A photochromic bacterial photoreceptor with potential for super-resolution microscopy. <i>Photochemical and Photobiological Sciences</i> , 2013, 12, 231-235.	2.9	35
52	A Photochromic Bacterial Photoreceptor with Potential for Super-Resolution Microscopy. <i>Biophysical Journal</i> , 2013, 104, 672a.	0.5	0
53	The amino acids surrounding the flavin 7a-methyl group determine the UVA spectral features of a LOV protein. <i>Biological Chemistry</i> , 2013, 394, 1517-1528.	2.5	30
54	CO Rebinding Kinetics and Molecular Dynamics Simulations Highlight Dynamic Regulation of Internal Cavities in Human Cytochrome c. <i>PLoS ONE</i> , 2013, 8, e49770.	2.5	28

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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.	13.7	19
57	Photochromism in a Flavin Binding Photoreceptor. <i>Biophysical Journal</i> , 2012, 102, 168a.	0.5	0
58	Kinetics of Proton Release and Uptake by Channelrhodopsin-2. <i>Biophysical Journal</i> , 2012, 102, 575a.	0.5	0
59	Kinetics of proton release and uptake by channelrhodopsin-2. <i>FEBS Letters</i> , 2012, 586, 1344-1348.	2.8	27
60	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.	2.5	13
61	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.	2.5	22
62	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.	2.5	28
63	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.	2.6	20
64	Time-Resolved and Steady-State Spectroscopy of Native and Mutated <i>Thermobifida fusca</i> Hemoglobins. <i>Biophysical Journal</i> , 2011, 100, 379a-380a.	0.5	0
65	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
66	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.	3.4	19
67	Oxygen and nitric oxide rebinding kinetics in nonsymbiotic hemoglobin AHb1 from <i>Arabidopsis thaliana</i> . <i>IUBMB Life</i> , 2011, 63, 1094-1100.	3.4	16
68	Ligand migration and hexacoordination in type 1 non-symbiotic rice hemoglobin. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 1042-1053.	2.3	15
69	Single Amino Acid Replacement Makes <i>Aequorea victoria</i> Fluorescent Proteins Reversibly Photoswitchable. <i>Journal of the American Chemical Society</i> , 2010, 132, 85-95.	13.7	61
70	Ligand Migration and Binding in Nonsymbiotic Hemoglobins of <i>Arabidopsis thaliana</i> . <i>Biochemistry</i> , 2010, 49, 7448-7458.	2.5	19
71	Singlet oxygen photosensitisation by GFP mutants: oxygen accessibility to the chromophore. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 1336-1341.	2.9	34
72	Photoswitching of E222Q GFP mutants: concerted mechanism of chromophore isomerization and protonation. <i>Photochemical and Photobiological Sciences</i> , 2010, 9, 1307.	2.9	23

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73	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
74	PEGylation Promotes Hemoglobin Tetramer Dissociation. Bioconjugate Chemistry, 2009, 20, 1356-1366.	3.6	45
75	One-Pot Synthesis of Gold Nanoshells with High Photon-to-Heat Conversion Efficiency. Journal of Physical Chemistry C, 2009, 113, 7516-7521.	3.1	39
76	Structural Plasticity and Functional Implications of Internal Cavities in Distal Mutants of Type 1 Non-Symbiotic Hemoglobin AHb1 from <i>Arabidopsis thaliana</i> . Journal of Physical Chemistry B, 2009, 113, 16028-16038.	2.6	20
77	Ligand reactivity and allosteric regulation of hemoglobin-based oxygen carriers. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1365-1377.	2.3	21
78	High and low oxygen affinity conformations of T state hemoglobin. Protein Science, 2008, 10, 2401-2407.	7.6	74
79	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
80	<i>Cis</i> to <i>Trans</i> Photoisomerization of Fluorescent-Protein Chromophores. Journal of Physical Chemistry B, 2008, 112, 10714-10722.	2.6	114
81	Characterization of Ligand Migration Mechanisms inside Hemoglobins from the Analysis of Geminate Rebinding Kinetics. Methods in Enzymology, 2008, 437, 329-345.	1.0	4
82	Different roles of protein dynamics and ligand migration in non-symbiotic hemoglobins AHb1 and AHb2 from <i>Arabidopsis thaliana</i> . Gene, 2007, 398, 224-233.	2.2	32
83	Green Fluorescent Protein Ground States: The Influence of a Second Protonation Site near the Chromophore. Biochemistry, 2007, 46, 5494-5504.	2.5	60
84	The Reactivity with CO of AHb1 and AHb2 from <i>Arabidopsis thaliana</i> is Controlled by the Distal HisE7 and Internal Hydrophobic Cavities. Journal of the American Chemical Society, 2007, 129, 2880-2889.	13.7	54
85	Ligand Migration in Nonsymbiotic Hemoglobin AHb1 from <i>Arabidopsis thaliana</i> . Journal of Physical Chemistry B, 2007, 111, 12582-12590.	2.6	27
86	Monitoring the T to R transition of human hemoglobin encapsulated in silica gels. FASEB Journal, 2007, 21, A637.	0.5	0
87	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
88	Acid-induced unfolding of myoglobin triggered by a laser pH jump method. Photochemical and Photobiological Sciences, 2006, 5, 621.	2.9	34
89	Molten Globule Formation in Apomyoglobin Monitored by the Fluorescent Probe Nile Red. Biochemistry, 2006, 45, 5111-5121.	2.5	14
90	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

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91	Sulfur Mobilization in Cyanobacteria. <i>Journal of Biological Chemistry</i> , 2006, 281, 38769-38780.	3.4	16
92	Light-Induced Protein-Matrix Uncoupling and Protein Relaxation in Dry Samples of Trehalose-Coated MbCO at Room Temperature. <i>Cell Biochemistry and Biophysics</i> , 2005, 43, 431-438.	1.8	16
93	Evidence for Two Geminate Rebinding States Following Laser Photolysis of R State Hemoglobin Encapsulated in Wet Silica Gels. <i>Journal of Physical Chemistry B</i> , 2005, 109, 11411-11413.	2.6	29
94	Kinetics of Acid-Induced Spectral Changes in the GFPmut2 Chromophore. <i>Journal of the American Chemical Society</i> , 2005, 127, 626-635.	13.7	57
95	Kinetics of Proton Release after Flash Photolysis of 1-(2-Nitrophenyl)ethyl Sulfate (Caged Sulfate) in Aqueous Solution. <i>Journal of the American Chemical Society</i> , 2005, 127, 9865-9874.	13.7	38
96	Determination of Microscopic Rate Constants for CO Binding and Migration in Myoglobin Encapsulated in Silica Gels. <i>Journal of Physical Chemistry B</i> , 2005, 109, 19523-19528.	2.6	29
97	Geminate Rebinding in R-State Hemoglobin: Kinetic and Computational Evidence for Multiple Hydrophobic Pockets. <i>Journal of the American Chemical Society</i> , 2005, 127, 17427-17432.	13.7	29
98	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.	7.1	110
99	Kinetics of Histidine Dissociation From the Heme Fe(III) in N-fragment (residues 1756) of Cytochrome c. <i>Protein Journal</i> , 2004, 23, 519-527.	1.6	8
100	Deprotonation yields, pKa, and aci-nitro decay rates in some substituted o-nitrobenzaldehydes Dedicated to Professor Silvia Braslavsky, to mark her great contribution to photochemistry and photobiology particularly in the field of photothermal methods.. <i>Photochemical and Photobiological Sciences</i> , 2003, 2, 796.	2.9	36
101	Residual water modulates the dynamics of the protein and of the external matrix in trehalose coated MbCO: An infrared and flash-photolysis study. <i>Journal of Chemical Physics</i> , 2002, 116, 1193-1200.	3.0	63
102	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
103	Kinetics of Histidine Deligation from the Heme in GuHCl-Unfolded Fe(III) Cytochrome c Studied by a Laser-Induced pH-Jump Technique. <i>Journal of the American Chemical Society</i> , 2001, 123, 6649-6653.	13.7	39
104	Photoinduced alkaline pH-jump on the nanosecond time scale. <i>Chemical Physics Letters</i> , 2001, 344, 387-394.	2.6	24
105	Enhanced geminate ligand rebinding upon photo-dissociation of silica gel-embedded myoglobin-CO. <i>Chemical Physics Letters</i> , 2001, 346, 430-436.	2.6	25
106	Kinetics of Local Helix Formation in Poly-L-Glutamic Acid Studied by Time-Resolved Photoacoustics: Neutralization Reactions of Carboxylates in Aqueous Solutions and Their Relevance to the Problem of Protein Folding. <i>Biophysical Journal</i> , 2000, 79, 2714-2721.	0.5	51
107	Fast Events in Protein Folding: Structural Volume Changes Accompanying the Early Events in the N ⁺ l Transition of Apomyoglobin Induced by Ultrafast pH Jump. <i>Biophysical Journal</i> , 2000, 78, 405-415.	0.5	82
108	Non-toxic, water-soluble photocalorimetric reference compounds for UV and visible excitation. <i>Chemical Physics Letters</i> , 1999, 304, 167-172.	2.6	45

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109	An experimental methodology for measuring volume changes in proton transfer reactions in aqueous solutions. <i>Biophysical Chemistry</i> , 1998, 73, 13-22.	2.8	24
110	Structure and dynamics of the membrane attaching nitric oxide transporter nitrophorin 7. <i>Fluorescence Research</i> , 0, 4, 45.	1.6	13
111	A Red-Green Photochromic Bacterial Protein as a New Contrast Agent for Improved Photoacoustic Imaging. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
112	Probing the Role of Murine Neuroglobin CDloopâ€“D-Helix Unit in CO Ligand Binding and Structural Dynamics. <i>ACS Chemical Biology</i> , 0, , .	3.4	2