

Alberto Giuseppe Barbiroli

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

1,636
citations

331670

21
h-index

345221

36
g-index

80
all docs

80
docs citations

80
times ranked

2495
citing authors

#	ARTICLE	IF	CITATIONS
1	Antimicrobial activity of lysozyme and lactoferrin incorporated in cellulose-based food packaging. <i>Food Control</i> , 2012, 26, 387-392.	5.5	147
2	Xanthan and Glucomannan Mixtures: Synergistic Interactions and Gelation. <i>Biomacromolecules</i> , 2002, 3, 498-504.	5.4	79
3	Î±-Synuclein is a Novel Microtubule Dynamase. <i>Scientific Reports</i> , 2016, 6, 33289.	3.3	79
4	Structuring and texturing gluten-free pasta: egg albumen or whey proteins?. <i>European Food Research and Technology</i> , 2014, 238, 217-224.	3.3	66
5	Process conditions affect starch structure and its interactions with proteins in rice pasta. <i>Carbohydrate Polymers</i> , 2013, 92, 1865-1872.	10.2	63
6	Dissecting the Structural Determinants of the Stability of Cholesterol Oxidase Containing Covalently Bound Flavin. <i>Journal of Biological Chemistry</i> , 2005, 280, 22572-22581.	3.4	60
7	Conformational dynamics in crystals reveal the molecular bases for D76N beta-2 microglobulin aggregation propensity. <i>Nature Communications</i> , 2018, 9, 1658.	12.8	53
8	Concurrent structural and biophysical traits link with immunoglobulin light chains amyloid propensity. <i>Scientific Reports</i> , 2017, 7, 16809.	3.3	50
9	Rational design of mutations that change the aggregation rate of a protein while maintaining its native structure and stability. <i>Scientific Reports</i> , 2016, 6, 25559.	3.3	47
10	Contribution of the dimeric state to the thermal stability of the flavoprotein D-amino acid oxidase. <i>Protein Science</i> , 2003, 12, 1018-1029.	7.6	43
11	DE-loop mutations affect Î²2 microglobulin stability, oligomerization, and the low-pH unfolded form. <i>Protein Science</i> , 2010, 19, 1386-1394.	7.6	43
12	Transglutaminase treatment of brown rice flour: A chromatographic, electrophoretic and spectroscopic study of protein modifications. <i>Food Chemistry</i> , 2012, 131, 1076-1085.	8.2	40
13	Bound Fatty Acids Modulate the Sensitivity of Bovine Î²-Lactoglobulin to Chemical and Physical Denaturation. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 5729-5737.	5.2	38
14	Crystal structure of LptH, the periplasmic component of the lipopolysaccharide transport machinery from <i>Pseudomonas aeruginosa</i> . <i>FEBS Journal</i> , 2015, 282, 1980-1997.	4.7	31
15	The coexistence of cold activity and thermal stability in an Antarctic GH42 Î²-galactosidase relies on its hexameric quaternary arrangement. <i>FEBS Journal</i> , 2021, 288, 546-565.	4.7	31
16	Bovine Î²-lactoglobulin acts as an acid-resistant drug carrier by exploiting its diverse binding regions. <i>Biological Chemistry</i> , 2010, 391, 21-32.	2.5	30
17	From cheese whey permeate to Sakacin-A/bacterial cellulose nanocrystal conjugates for antimicrobial food packaging applications: a circular economy case study. <i>Scientific Reports</i> , 2020, 10, 21358.	3.3	28
18	Stabilization of beta-lactoglobulin by polyols and sugars against temperature-induced denaturation involves diverse and specific structural regions of the protein. <i>Food Chemistry</i> , 2017, 234, 155-162.	8.2	27

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19	Unfolding Intermediate in the Peroxisomal Flavoprotein d-Amino Acid Oxidase. <i>Journal of Biological Chemistry</i> , 2004, 279, 28426-28434.	3.4	26
20	Bacterial Production, Characterization and Protein Modeling of a Novel Monofunctional Isoform of FAD Synthase in Humans: An Emergency Protein?. <i>Molecules</i> , 2018, 23, 116.	3.8	26
21	Inherent Biophysical Properties Modulate the Toxicity of Soluble Amyloidogenic Light Chains. <i>Journal of Molecular Biology</i> , 2020, 432, 845-860.	4.2	26
22	Prion protein structure is affected by pH-dependent interaction with membranes: A study in a model system. <i>FEBS Letters</i> , 2008, 582, 215-220.	2.8	25
23	Relevance of the flavin binding to the stability and folding of engineered cholesterol oxidase containing noncovalently bound FAD. <i>Protein Science</i> , 2008, 17, 409-419.	7.6	22
24	Class I Major Histocompatibility Complex, the Trojan Horse for Secretion of Amyloidogenic β 2-Microglobulin. <i>Journal of Biological Chemistry</i> , 2014, 289, 3318-3327.	3.4	22
25	Decoding the Structural Bases of D76N β 2-Microglobulin High Amyloidogenicity through Crystallography and Asn-Scan Mutagenesis. <i>PLoS ONE</i> , 2015, 10, e0144061.	2.5	22
26	One-step purification of Kunitz soybean trypsin inhibitor. <i>Protein Expression and Purification</i> , 2003, 30, 167-170.	1.3	21
27	Structural Features of Transiently Modified Beta-Lactoglobulin Relevant to the Stable Binding of Large Hydrophobic Molecules. <i>Protein Journal</i> , 2006, 25, 1-15.	1.6	21
28	Structures of the lamin A/C R335W and E347K mutants: Implications for dilated cardiomyopathies. <i>Biochemical and Biophysical Research Communications</i> , 2012, 418, 217-221.	2.1	21
29	Interplay between starch and proteins in waxy wheat. <i>Journal of Cereal Science</i> , 2017, 75, 198-204.	3.7	21
30	Nanobody interaction unveils structure, dynamics and proteotoxicity of the Finnish-type amyloidogenic gelsolin variant. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2019, 1865, 648-660.	3.8	21
31	Two Latent and Two Hyperstable Polymeric Forms of Human Neuroserpin. <i>Biophysical Journal</i> , 2010, 99, 3402-3411.	0.5	20
32	A bacterial acyl aminoacyl peptidase couples flexibility and stability as a result of cold adaptation. <i>FEBS Journal</i> , 2016, 283, 4310-4324.	4.7	19
33	Sakacin A antimicrobial packaging for decreasing <i>Listeria</i> contamination in thin-cut meat: preliminary assessment. <i>Journal of the Science of Food and Agriculture</i> , 2017, 97, 1042-1047.	3.5	17
34	Cellulose nanofiber (CNF) as sakacin A active material: production, characterization and application in storage trials of smoked salmon. <i>Journal of the Science of Food and Agriculture</i> , 2019, 99, 4731-4738.	3.5	17
35	Gelsolin pathogenic Gly167Arg mutation promotes domain-swap dimerization of the protein. <i>Human Molecular Genetics</i> , 2018, 27, 53-65.	2.9	16
36	Imine Deaminase Activity and Conformational Stability of UK114, the Mammalian Member of the Rid Protein Family Active in Amino Acid Metabolism. <i>International Journal of Molecular Sciences</i> , 2018, 19, 945.	4.1	16

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37	The hidden side of the human FAD synthase 2. <i>International Journal of Biological Macromolecules</i> , 2019, 138, 986-995.	7.5	16
38	Functional implications of the interaction between HscB and IscU in the biosynthesis of FeS clusters. <i>Journal of Biological Inorganic Chemistry</i> , 2015, 20, 1039-1048.	2.6	14
39	Dâ€strand perturbation and amyloid propensity in betaâ€2 microglobulin. <i>FEBS Journal</i> , 2011, 278, 2349-2358.	4.7	13
40	A covalent homodimer probing early oligomers along amyloid aggregation. <i>Scientific Reports</i> , 2015, 5, 14651.	3.3	13
41	Embelin binds to human neuroserpin and impairs its polymerisation. <i>Scientific Reports</i> , 2016, 6, 18769.	3.3	13
42	Structure and function of the apoA-IV T347S and Q360H common variants. <i>Biochemical and Biophysical Research Communications</i> , 2010, 393, 126-130.	2.1	12
43	Molecular basis of a novel renal amyloidosis due to N184K gelsolin variant. <i>Scientific Reports</i> , 2016, 6, 33463.	3.3	12
44	Influence of Free Fatty Acids on Lipid Membraneâ€Nisin Interaction. <i>Langmuir</i> , 2020, 36, 13535-13544.	3.5	12
45	Biochemical and biophysical comparison of human and mouse betaâ€2 microglobulin reveals the molecular determinants of low amyloid propensity. <i>FEBS Journal</i> , 2020, 287, 546-560.	4.7	11
46	Modulation of Guanylate Cyclase Activating Protein 1 (GCAP1) Dimeric Assembly by Ca ²⁺ or Mg ²⁺ : Hints to Understand Protein Activity. <i>Biomolecules</i> , 2020, 10, 1408.	4.0	11
47	Glycosylation Tunes Neuroserpin Physiological and Pathological Properties. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3235.	4.1	11
48	Distribution of Charged Residues Affects the Average Size and Shape of Intrinsically Disordered Proteins. <i>Biomolecules</i> , 2022, 12, 561.	4.0	11
49	Biochemical and Functional Characterization of an Albumin Protein Belonging to the Hemopexin Superfamily from <i>Lens culinaris</i> Seeds. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 9637-9644.	5.2	10
50	A stereospecific carboxyl esterase from <i>Bacillus coagulans</i> hosting nonlipase activity within a lipaseâ€like fold. <i>FEBS Journal</i> , 2018, 285, 903-914.	4.7	10
51	Impact of Thermal Treatment on the Starch-Protein Interplay in Red Lentils: Connecting Molecular Features and Rheological Properties. <i>Molecules</i> , 2022, 27, 1266.	3.8	10
52	Molecular adaptation strategies to high temperature and thermal denaturation mechanism of the D-trehalose/D-maltose-binding protein from the hyperthermophilic archaeon <i>Thermococcus litoralis</i> . <i>Proteins: Structure, Function and Bioinformatics</i> , 2007, 67, 1002-1009.	2.6	9
53	The effects of an ideal Î ² -turn on Î ² -2 microglobulin fold stability. <i>Journal of Biochemistry</i> , 2011, 150, 39-47.	1.7	9
54	Electrostatics of folded and unfolded bovine Î ² -lactoglobulin. <i>Amino Acids</i> , 2012, 42, 2019-2030.	2.7	8

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55	Structural changes in emulsion-bound bovine beta-lactoglobulin affect its proteolysis and immunoreactivity. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2016, 1864, 805-813.	2.3	8
56	Defining the Overall Quality of Cowpea-Enriched Rice-Based Breakfast Cereals. <i>Cereal Chemistry</i> , 2017, 94, 151-157.	2.2	8
57	Molecular features and cooking behavior of pasta from pulses. <i>Cereal Chemistry</i> , 2022, 99, 270-274.	2.2	7
58	Beta-Lactoglobulin as a Model Food Protein: How to Promote, Prevent, and Exploit Its Unfolding Processes. <i>Molecules</i> , 2022, 27, 1131.	3.8	7
59	Effect of High-Pressure Processing on the Features of Wheat Milling By-products. <i>Cereal Chemistry</i> , 2014, 91, 318-320.	2.2	6
60	Macromolecular Traits in the African Rice <i>Oryza glaberrima</i> and in <i>Glaberrima/Sativa</i> Crosses, and Their Relevance to Processing. <i>Journal of Food Science</i> , 2017, 82, 2298-2305.	3.1	6
61	Soybean-Enriched Snacks Based on African Rice. <i>Foods</i> , 2016, 5, 38.	4.3	5
62	Insights into the effects of N-glycosylation on the characteristics of the VC1 domain of the human receptor for advanced glycation end products (RAGE) secreted by <i>Pichia pastoris</i> . <i>Glycoconjugate Journal</i> , 2019, 36, 27-38.	2.7	5
63	The activity and stability of a cold-active acylaminoacyl peptidase rely on its dimerization by domain swapping. <i>International Journal of Biological Macromolecules</i> , 2021, 181, 263-274.	7.5	5
64	Modulating the cardiotoxic behaviour of immunoglobulin light chain dimers through point mutations. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , 2019, 26, 105-106.	3.0	4
65	Effects on the Caco-2 Cells of a Hypoglycemic Protein from Lupin Seeds in a Solution and Adsorbed on Polystyrene Nanoparticles to Mimic a Complex Food Matrix. <i>Biomolecules</i> , 2019, 9, 606.	4.0	4
66	The structure of N184K amyloidogenic variant of gelsolin highlights the role of the H-bond network for protein stability and aggregation properties. <i>European Biophysics Journal</i> , 2020, 49, 11-19.	2.2	4
67	Two novel fish paralogs provide insights into the Rid family of imine deaminases active in pre-empting enamine/imine metabolic damage. <i>Scientific Reports</i> , 2020, 10, 10135.	3.3	4
68	Monitoring the carryover of egg proteins in pasta making to support allergen risk management. <i>Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment</i> , 2021, 38, 1087-1095.	2.3	4
69	Morpholino-based peptide oligomers: Synthesis and DNA binding properties. <i>Biochemical and Biophysical Research Communications</i> , 2021, 549, 8-13.	2.1	3
70	Emulsifying and foaming properties of a hydrophobin-based food ingredient from <i>Trichoderma reesei</i> : A phenomenological comparative study. <i>LWT - Food Science and Technology</i> , 2022, 157, 113060.	5.2	3
71	An Asp to Asn mutation is a toxic trigger in beta-2 microglobulin: structure and biophysics. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , 2017, 24, 15-16.	3.0	2
72	Antilisterial Bacteriocins for Food Security: The Case of Sakacin A. , 2019, , 385-392.		2

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73	The concurrency of several biophysical traits links immunoglobulin light chains with toxicity in AL amyloidosis. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , 2019, 26, 107-108.	3.0	2
74	A novel hotspot of gelsolin instability triggers an alternative mechanism of amyloid aggregation. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 6355-6365.	4.1	2
75	Protein interactions in the biological assembly of iron-sulfur clusters in <i>Escherichia coli</i> : Molecular and mechanistic aspects of the earliest assembly steps. <i>IUBMB Life</i> , 2022, 74, 723-732.	3.4	2
76	Greetings from foodland: Teaching biochemistry to BS students in food-related courses in Italy. <i>Biochemistry and Molecular Biology Education</i> , 2019, 47, 394-403.	1.2	1
77	Circular Dichroism to Probe the Synthesis, Transfer, and Stability of Fe-S Clusters. <i>Methods in Molecular Biology</i> , 2021, 2353, 209-229.	0.9	1
78	Cu(II) Binding Increases the Soluble Toxicity of Amyloidogenic Light Chains. <i>International Journal of Molecular Sciences</i> , 2022, 23, 950.	4.1	1
79	Y to D-Amino Acid Substitution in the Immunodominant LCMV-Derived Epitope gp33 Highlights the Sensitivity of the TCR Recognition Mechanism for the MHC/Peptide Structure and Dynamics. <i>ACS Omega</i> , 2022, 7, 9622-9635.	3.5	1
80	<i>Apis mellifera</i> RidA, a novel member of the canonical YigF/YER057c/UK114 imine deiminase superfamily of enzymes pre-empting metabolic damage. <i>Biochemical and Biophysical Research Communications</i> , 2022, 616, 70-75.	2.1	0