Alberto Giuseppe Barbiroli

List of Publications by Year
in descending order

80 papers	1,636 citations	331538 21 h-index	345118 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. Food Control, 2012, 26, 387-392.	2.8	147
2	Xanthan and Glucomannan Mixtures:Â Synergistic Interactions and Gelation. Biomacromolecules, 2002, 3, 498-504.	2.6	79
3	Î±-Synuclein is a Novel Microtubule Dynamase. Scientific Reports, 2016, 6, 33289.	1.6	79
4	Structuring and texturing gluten-free pasta: egg albumen or whey proteins?. European Food Research and Technology, 2014, 238, 217-224.	1.6	66
5	Process conditions affect starch structure and its interactions with proteins in rice pasta. Carbohydrate Polymers, 2013, 92, 1865-1872.	5.1	63
6	Dissecting the Structural Determinants of the Stability of Cholesterol Oxidase Containing Covalently Bound Flavin. Journal of Biological Chemistry, 2005, 280, 22572-22581.	1.6	60
7	Conformational dynamics in crystals reveal the molecular bases for D76N beta-2 microglobulin aggregation propensity. Nature Communications, 2018, 9, 1658.	5.8	53
8	Concurrent structural and biophysical traits link with immunoglobulin light chains amyloid propensity. Scientific Reports, 2017, 7, 16809.	1.6	50
9	Rational design of mutations that change the aggregation rate of a protein while maintaining its native structure and stability. Scientific Reports, 2016, 6, 25559.	1.6	47
10	Contribution of the dimeric state to the thermal stability of the flavoprotein D-amino acid oxidase. Protein Science, 2003, 12, 1018-1029.	3.1	43
11	DEâ€loop mutations affect Î²2 microglobulin stability, oligomerization, and the lowâ€pH unfolded form. Protein Science, 2010, 19, 1386-1394.	3.1	43
12	Transglutaminase treatment of brown rice flour: A chromatographic, electrophoretic and spectroscopic study of protein modifications. Food Chemistry, 2012, 131, 1076-1085.	4.2	40
13	Bound Fatty Acids Modulate the Sensitivity of Bovine Î²-Lactoglobulin to Chemical and Physical Denaturation. Journal of Agricultural and Food Chemistry, 2011, 59, 5729-5737.	2.4	38
14	Crystal structure of LptH, the periplasmic component of the lipopolysaccharide transport machinery from PseudomonasÂaeruginosa. FEBS Journal, 2015, 282, 1980-1997.	2.2	31
15	The coâ€existence of cold activity and thermal stability in an Antarctic GH42 Î²â€galactosidase relies on its hexameric quaternary arrangement. FEBS Journal, 2021, 288, 546-565.	2.2	31
16	Bovine Î²-lactoglobulin acts as an acid-resistant drug carrier by exploiting its diverse binding regions. Biological Chemistry, 2010, 391, 21-32.	1.2	30
17	From cheese whey permeate to Sakacin-A/bacterial cellulose nanocrystal conjugates for antimicrobial food packaging applications: a circular economy case study. Scientific Reports, 2020, 10, 21358.	1.6	28
18	Stabilization of beta-lactoglobulin by polyols and sugars against temperature-induced denaturation involves diverse and specific structural regions of the protein. Food Chemistry, 2017, 234, 155-162.	4.2	27

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19	Unfolding Intermediate in the Peroxisomal Flavoprotein d-Amino Acid Oxidase. Journal of Biological Chemistry, 2004, 279, 28426-28434.	1.6	26
20	Bacterial Production, Characterization and Protein Modeling of a Novel Monofuctional Isoform of FAD Synthase in Humans: An Emergency Protein?. Molecules, 2018, 23, 116.	1.7	26
21	Inherent Biophysical Properties Modulate the Toxicity of Soluble Amyloidogenic Light Chains. Journal of Molecular Biology, 2020, 432, 845-860.	2.0	26
22	Prion protein structure is affected by pHâ€dependent interaction with membranes: A study in a model system. FEBS Letters, 2008, 582, 215-220.	1.3	25
23	Relevance of the flavin binding to the stability and folding of engineered cholesterol oxidase containing noncovalently bound FAD. Protein Science, 2008, 17, 409-419.	3.1	22
24	Class I Major Histocompatibility Complex, the Trojan Horse for Secretion of Amyloidogenic Î²2-Microglobulin. Journal of Biological Chemistry, 2014, 289, 3318-3327.	1.6	22
25	Decoding the Structural Bases of D76N ÃŸ2-Microglobulin High Amyloidogenicity through Crystallography and Asn-Scan Mutagenesis. PLoS ONE, 2015, 10, e0144061.	1.1	22
26	One-step purification of Kunitz soybean trypsin inhibitor. Protein Expression and Purification, 2003, 30, 167-170.	0.6	21
27	Structural Features of Transiently Modified Beta-Lactoglobulin Relevant to the Stable Binding of Large Hydrophobic Molecules. Protein Journal, 2006, 25, 1-15.	0.7	21
28	Structures of the lamin A/C R335W and E347K mutants: Implications for dilated cardiolaminopathies. Biochemical and Biophysical Research Communications, 2012, 418, 217-221.	1.0	21
29	Interplay between starch and proteins in waxy wheat. Journal of Cereal Science, 2017, 75, 198-204.	1.8	21
30	Nanobody interaction unveils structure, dynamics and proteotoxicity of the Finnish-type amyloidogenic gelsolin variant. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2019, 1865, 648-660.	1.8	21
31	Two Latent and Two Hyperstable Polymeric Forms of Human Neuroserpin. Biophysical Journal, 2010, 99, 3402-3411.	0.2	20
32	A bacterial acyl aminoacyl peptidase couples flexibility and stability as a result of cold adaptation. FEBS Journal, 2016, 283, 4310-4324.	2.2	19
33	Sakacinâ€A antimicrobial packaging for decreasing Listeria contamination in thinâ€cut meat: preliminary assessment. Journal of the Science of Food and Agriculture, 2017, 97, 1042-1047.	1.7	17
34	Cellulose nanofiber (CNF)â€“sakacinâ€A active material: production, characterization and application in storage trials of smoked salmon. Journal of the Science of Food and Agriculture, 2019, 99, 4731-4738.	1.7	17
35	Gelsolin pathogenic Gly167Arg mutation promotes domain-swap dimerization of the protein. Human Molecular Genetics, 2018, 27, 53-65.	1.4	16
36	Imine Deaminase Activity and Conformational Stability of UK114, the Mammalian Member of the Rid Protein Family Active in Amino Acid Metabolism. International Journal of Molecular Sciences, 2018, 19, 945.	1.8	16

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37	The hidden side of the human FAD synthase 2. International Journal of Biological Macromolecules, 2019, 138, 986-995.	3.6	16
38	Functional implications of the interaction between HscB and IscU in the biosynthesis of FeS clusters. Journal of Biological Inorganic Chemistry, 2015, 20, 1039-1048.	1.1	14
39	Dâ€strand perturbation and amyloid propensity in betaâ€2 microglobulin. FEBS Journal, 2011, 278, 2349-2358.	2.2	13
40	A covalent homodimer probing early oligomers along amyloid aggregation. Scientific Reports, 2015, 5, 14651.	1.6	13
41	Embelin binds to human neuroserpin and impairs its polymerisation. Scientific Reports, 2016, 6, 18769.	1.6	13
42	Structure and function of the apoA-IV T347S and Q360H common variants. Biochemical and Biophysical Research Communications, 2010, 393, 126-130.	1.0	12
43	Molecular basis of a novel renal amyloidosis due to N184K gelsolin variant. Scientific Reports, 2016, 6, 33463.	1.6	12
44	Influence of Free Fatty Acids on Lipid Membraneâ€“Nisin Interaction. Langmuir, 2020, 36, 13535-13544.	1.6	12
45	Biochemical and biophysical comparison of human and mouse betaâ€2 microglobulin reveals the molecular determinants of low amyloid propensity. FEBS Journal, 2020, 287, 546-560.	2.2	11
46	Modulation of Guanylate Cyclase Activating Protein 1 (GCAP1) Dimeric Assembly by Ca2+ or Mg2+: Hints to Understand Protein Activity. Biomolecules, 2020, 10, 1408.	1.8	11
47	Glycosylation Tunes Neuroserpin Physiological and Pathological Properties. International Journal of Molecular Sciences, 2020, 21, 3235.	1.8	11
48	Distribution of Charged Residues Affects the Average Size and Shape of Intrinsically Disordered Proteins. Biomolecules, 2022, 12, 561.	1.8	11
49	Biochemical and Functional Characterization of an Albumin Protein Belonging to the Hemopexin Superfamily from Lens culinaris Seeds. Journal of Agricultural and Food Chemistry, 2011, 59, 9637-9644.	2.4	10
50	A stereospecific carboxyl esterase from Bacillus coagulans hosting nonlipase activity within a lipaseâ€like fold. FEBS Journal, 2018, 285, 903-914.	2.2	10
51	Impact of Thermal Treatment on the Starch-Protein Interplay in Red Lentils: Connecting Molecular Features and Rheological Properties. Molecules, 2022, 27, 1266.	1.7	10
52	Molecular adaptation strategies to high temperature and thermal denaturation mechanism of the D-trehalose/D-maltose-binding protein from the hyperthermophilic archaeon Thermococcus litoralis. Proteins: Structure, Function and Bioinformatics, 2007, 67, 1002-1009.	1.5	9
53	The effects of an ideal Î²-turn on Î²-2 microglobulin fold stability. Journal of Biochemistry, 2011, 150, 39-47.	0.9	9
54	Electrostatics of folded and unfolded bovine Î²-lactoglobulin. Amino Acids, 2012, 42, 2019-2030.	1.2	8

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55	Structural changes in emulsion-bound bovine beta-lactoglobulin affect its proteolysis and immunoreactivity. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 805-813.	1.1	8
56	Defining the Overall Quality of Cowpeaâ€Enriched Riceâ€Based Breakfast Cereals. Cereal Chemistry, 2017, 94, 151-157.	1.1	8
57	Molecular features and cooking behavior of pasta from pulses. Cereal Chemistry, 2022, 99, 270-274.	1.1	7
58	Beta-Lactoglobulin as a Model Food Protein: How to Promote, Prevent, and Exploit Its Unfolding Processes. Molecules, 2022, 27, 1131.	1.7	7
59	Effect of Highâ€Pressure Processing on the Features of Wheat Milling Byâ€products. Cereal Chemistry, 2014, 91, 318-320.	1.1	6
60	Macromolecular Traits in the African Rice Oryza glaberrima and in Glaberrima/Sativa Crosses, and Their Relevance to Processing. Journal of Food Science, 2017, 82, 2298-2305.	1.5	6
61	Soybean-Enriched Snacks Based on African Rice. Foods, 2016, 5, 38.	1.9	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 Pichia pastoris. Glycoconjugate Journal, 2019, 36, 27-38.	1.4	5
63	The activity and stability of a cold-active acylaminoacyl peptidase rely on its dimerization by domain swapping. International Journal of Biological Macromolecules, 2021, 181, 263-274.	3.6	5
64	Modulating the cardiotoxic behaviour of immunoglobulin light chain dimers through point mutations. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2019, 26, 105-106.	1.4	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. Biomolecules, 2019, 9, 606.	1.8	4
66	The structure of N184K amyloidogenic variant of gelsolin highlights the role of the H-bond network for protein stability and aggregation properties. European Biophysics Journal, 2020, 49, 11-19.	1.2	4
67	Two novel fish paralogs provide insights into the Rid family of imine deaminases active in pre-empting enamine/imine metabolic damage. Scientific Reports, 2020, 10, 10135.	1.6	4
68	Monitoring the carryover of egg proteins in pasta making to support allergen risk management. Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment, 2021, 38, 1087-1095.	1.1	4
69	Morpholino-based peptide oligomers: Synthesis and DNA binding properties. Biochemical and Biophysical Research Communications, 2021, 549, 8-13.	1.0	3
70	Emulsifying and foaming properties of a hydrophobin-based food ingredient from Trichoderma reesei: A phenomenological comparative study. LWT - Food Science and Technology, 2022, 157, 113060.	2.5	3
71	An Asp to Asn mutation is a toxic trigger in beta-2 microglobulin: structure and biophysics. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2017, 24, 15-16.	1.4	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. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2019, 26, 107-108.	1.4	2
74	A novel hotspot of gelsolin instability triggers an alternative mechanism of amyloid aggregation. Computational and Structural Biotechnology Journal, 2021, 19, 6355-6365.	1.9	2
75	Protein interactions in the biological assembly of ironâ€“sulfur clusters in <scp>Escherichia coli</scp>: Molecular and mechanistic aspects of the earliest assembly steps. IUBMB Life, 2022, 74, 723-732.	1.5	2
76	Greetings from foodland: Teaching biochemistry to BS students in foodâ€related courses in Italy. Biochemistry and Molecular Biology Education, 2019, 47, 394-403.	0.5	1
77	Circular Dichroism to Probe the Synthesis, Transfer, and Stability of Fe-S Clusters. Methods in Molecular Biology, 2021, 2353, 209-229.	0.4	1
78	Cu(II) Binding Increases the Soluble Toxicity of Amyloidogenic Light Chains. International Journal of Molecular Sciences, 2022, 23, 950.	1.8	1
79	<scp>l</scp>- to <scp>d</scp>-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. ACS Omega, 2022, 7, 9622-9635.	1.6	1
80	Apis mellifera RidA, a novel member of the canonical YigF/YER057c/UK114 imine deiminase superfamily of enzymes pre-empting metabolic damage. Biochemical and Biophysical Research Communications, 2022, 616, 70-75.	1.0	0