Francesco Bonomi

List of Publications by Year in descending order

129 papers	4,387 citations	101543 36 h-index	133252 59 g-index
130 all docs	130 docs citations	130 times ranked	4689 citing authors

#	Article	IF	Citations
1	Modifications Occur at Different Structural Levels During the Heat Denaturation of beta-Lactoglobulin. FEBS Journal, 1996, 237, 106-112.	0.2	235
2	Bacterial frataxin CyaY is the gatekeeper of iron-sulfur cluster formation catalyzed by IscS. Nature Structural and Molecular Biology, 2009, 16, 390-396.	8.2	228
3	Antimicrobial activity of lysozyme and lactoferrin incorporated in cellulose-based food packaging. Food Control, 2012, 26, 387-392.	5.5	147
4	Reversible and irreversible modifications ofÎ²-lactoglobulin upon exposure to heat. The Protein Journal, 1994, 13, 347-354.	1.1	129
5	Structural changes of soy proteins at the oilâ€“water interface studied by fluorescence spectroscopy. Colloids and Surfaces B: Biointerfaces, 2012, 93, 41-48.	5.0	115
6	Modifications of High-Order Structures upon Heating of .beta.-Lactoglobulin: Dependence on the Protein Concentration. Journal of Agricultural and Food Chemistry, 1995, 43, 53-58.	5.2	106
7	Reduction of immunoreactivity of bovine Î²-lactoglobulin upon combined physical and proteolytic treatment. Journal of Dairy Research, 2003, 70, 51-59.	1.4	99
8	Thermal unfolding of monomeric and dimeric Î²-lactoglobulins. FEBS Journal, 2001, 268, 5439-5448.	0.2	96
9	Studies on the Mechanism of Catalysis of Ironâ^'Sulfur Cluster Transfer from IscU[2Fe2S] by HscA/HscB Chaperones. Biochemistry, 2008, 47, 12795-12801.	2.5	96
10	Molecular Modifications of Î²-Lactoglobulin upon Exposure to High Pressure. Journal of Agricultural and Food Chemistry, 1997, 45, 23-29.	5.2	92
11	Structureâ€“quality relationship in commercial pasta: A molecular glimpse. Food Chemistry, 2012, 135, 348-355.	8.2	88
12	Molecular rearrangements in extrusion processes for the production of amaranth-enriched, gluten-free rice pasta. LWT - Food Science and Technology, 2012, 47, 421-426.	5.2	85
13	Facilitated Transfer of IscUâ€“[2Fe2S] Clusters by Chaperone-Mediated Ligand Exchange. Biochemistry, 2011, 50, 9641-9650.	2.5	83
14	Kinetic and immobilization studies on fungal glycosidases for aroma enhancement in wine. Enzyme and Microbial Technology, 1994, 16, 286-291.	3.2	79
15	Proteomic and peptidomic characterisation of beer: Immunological and technological implications. Food Chemistry, 2011, 124, 1718-1726.	8.2	75
16	Denaturation of soy proteins in solution and at the oilâ€“water interface: A fluorescence study. Food Hydrocolloids, 2011, 25, 620-626.	10.7	66
17	Structural Modifications of Gluten Proteins in Strong and Weak Wheat Dough During Mixing. Cereal Chemistry, 2015, 92, 105-113.	2.2	66
18	Esterases as stereoselective biocatalysts. Biotechnology Advances, 2015, 33, 547-565.	11.7	65

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19	Macroscopic and Structural Consequences of High-Pressure Treatment of Ovalbumin Solutions. Journal of Agricultural and Food Chemistry, 1998, 46, 3521-3527.	5.2	64
20	Interaction of Zn2+ with the bovine-heart mitochondrial bc1 complex. FEBS Journal, 1991, 197, 555-561.	0.2	63
21	Probing structural features of water-insoluble proteins by front-face fluorescence. Analytical Biochemistry, 2004, 329, 104-111.	2.4	63
22	Process conditions affect starch structure and its interactions with proteins in rice pasta. Carbohydrate Polymers, 2013, 92, 1865-1872.	10.2	63
23	Recombinant Desulfovibrio vulgaris rubrerythrin. Isolation and characterization of the diiron domain. Biochemistry, 1995, 34, 3310-3318.	2.5	61
24	Multiple Turnover Transfer of [2Fe2S] Clusters by the Iron-Sulfur Cluster Assembly Scaffold Proteins IscU and IscA. Journal of Biological Chemistry, 2005, 280, 29513-29518.	3.4	61
25	Dissecting the Structural Determinants of the Stability of Cholesterol Oxidase Containing Covalently Bound Flavin. Journal of Biological Chemistry, 2005, 280, 22572-22581.	3.4	60
26	Properties of the Protein and Carbohydrate Fractions in Immature Wheat Kernels. Journal of Agricultural and Food Chemistry, 2006, 54, 10239-10244.	5.2	57
27	Characterization of High-Pressure-Treated Egg Albumen. Journal of Agricultural and Food Chemistry, 1999, 47, 3611-3616.	5.2	55
28	Proteolysis of bovine Î²-lactoglobulin during thermal treatment in subdenaturing conditions highlights some structural features of the temperature-modified protein and yields fragments with low immunoreactivity. FEBS Journal, 2002, 269, 1362-1372.	0.2	47
29	Molecular features of fermented and sprouted sorghum flours relate to their suitability as components of enriched gluten-free pasta. LWT - Food Science and Technology, 2015, 63, 511-518.	5.2	45
30	Human FAD synthase (isoform 2): a component of the machinery that delivers FAD to apoâ€flavoproteins. FEBS Journal, 2011, 278, 4434-4449.	4.7	44
31	Contribution of the dimeric state to the thermal stability of the flavoprotein D-amino acid oxidase. Protein Science, 2003, 12, 1018-1029.	7.6	43
32	DEâ€loop mutations affect Î²2 microglobulin stability, oligomerization, and the lowâ€pH unfolded form. Protein Science, 2010, 19, 1386-1394.	7.6	43
33	Primary structure of Î²-casein isolated from mares' milk. Journal of Dairy Research, 2001, 68, 53-61.	1.4	40
34	Effect of the Hofmeister series on gluten aggregation measured using a high shear-based technique. Food Research International, 2011, 44, 893-896.	6.2	40
35	Transglutaminase treatment of brown rice flour: A chromatographic, electrophoretic and spectroscopic study of protein modifications. Food Chemistry, 2012, 131, 1076-1085.	8.2	40
36	Fermentation modifies protein/protein and protein/starch interactions in sorghum dough. European Food Research and Technology, 2006, 222, 559-564.	3.3	39

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37	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.	5.2	38
38	Structural Features and Reversible Association of Different Quaternary Structures of Î²-Lactoglobulin. Journal of Agricultural and Food Chemistry, 1998, 46, 2159-2166.	5.2	36
39	Remaining challenges in cellular flavin cofactor homeostasis and flavoprotein biogenesis. Frontiers in Chemistry, 2015, 3, 30.	3.6	36
40	Surface hydrophobicity changes and heat-induced modifications of .alpha.-lactalbumin. Journal of Agricultural and Food Chemistry, 1992, 40, 1731-1736.	5.2	35
41	The Performing Protein: Beyond Wheat Proteomics?. Cereal Chemistry, 2013, 90, 358-366.	2.2	34
42	Thermal stability of Clostridium pasteurianum rubredoxin: Deconvoluting the contributions of the metal site and the protein. Protein Science, 2000, 9, 2413-2426.	7.6	33
43	Solubility of proteins from non-gluten cereals: A comparative study on combinations of solubilising agents. Food Chemistry, 2010, 121, 1225-1230.	8.2	33
44	Molecular aspects of the removal of ferritin-bound iron bydl-dihydrolipoate. BBA - Proteins and Proteomics, 1989, 994, 180-186.	2.1	30
45	Bovine Î²-lactoglobulin acts as an acid-resistant drug carrier by exploiting its diverse binding regions. Biological Chemistry, 2010, 391, 21-32.	2.5	30
46	Gluten Structural Evolution During Pasta Processing of Refined and Whole Wheat Pasta from Hard White Winter Wheat: The Influence of Mixing, Drying, and Cooking. Cereal Chemistry, 2015, 92, 460-465.	2.2	30
47	Fining white wine with plant proteins: effects of fining on proanthocyanidins and aroma components. European Food Research and Technology, 2014, 238, 265-274.	3.3	29
48	Murein Lytic Enzyme TgaA of Bifidobacterium bifidum MIMBb75 Modulates Dendritic Cell Maturation through Its Cysteine- and Histidine-Dependent Amidohydrolase/Peptidase (CHAP) Amidase Domain. Applied and Environmental Microbiology, 2014, 80, 5170-5177.	3.1	27
49	Structural Modification of Gluten Proteins in Strong and Weak Wheat Dough as Affected by Mixing Temperature. Cereal Chemistry, 2016, 93, 189-195.	2.2	27
50	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.	8.2	27
51	Pro108 is Important for Folding and Stabilization of Adrenal Ferredoxin, but does not Influence the Functional Properties of the Protein. FEBS Journal, 1997, 248, 897-902.	0.2	26
52	Unfolding Intermediate in the Peroxisomal Flavoprotein d-Amino Acid Oxidase. Journal of Biological Chemistry, 2004, 279, 28426-28434.	3.4	26
53	Structural perturbation of Î±B-crystallin by zinc and temperature related to its chaperone-like activity. International Journal of Biological Macromolecules, 2008, 42, 229-234.	7.5	26
54	New insights on the features of the vinyl phenol reductase from the wine-spoilage yeast Dekkera/Brettanomyces bruxellensis. Annals of Microbiology, 2015, 65, 321-329.	2.6	26

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55	Bacterial Production, Characterization and Protein Modeling of a Novel Monofuctional Isoform of FAD Synthase in Humans: An Emergency Protein?. Molecules, 2018, 23, 116.	3.8	26
56	Thermal sensitivity of mares' milk proteins. Journal of Dairy Research, 1994, 61, 419-422.	1.4	25
57	Prion protein structure is affected by pHâ€dependent interaction with membranes: A study in a model system. FEBS Letters, 2008, 582, 215-220.	2.8	25
58	Molecular features of fermented teff flour relate to its suitability for the production of enriched gluten-free bread. LWT - Food Science and Technology, 2017, 78, 296-302.	5.2	25
59	Binding of curcumin to milk proteins increases after static high pressure treatment of skim milk. Journal of Dairy Research, 2013, 80, 152-158.	1.4	24
60	Blood trace metals in a sporadic amyotrophic lateral sclerosis geographical cluster. BioMetals, 2017, 30, 355-365.	4.1	24
61	Affinity and selectivity of plant proteins for red wine components relevant to color and aroma traits. Food Chemistry, 2018, 256, 235-243.	8.2	24
62	Direct metal ion substitution at the [M(SCys)4]2â€“ site of rubredoxin. Journal of Biological Inorganic Chemistry, 1998, 3, 595-605.	2.6	23
63	Structural determinants of the immunomodulatory properties of the C-terminal region of bovine Î²-casein. International Dairy Journal, 2011, 21, 770-776.	3.0	23
64	Relevance of the flavin binding to the stability and folding of engineered cholesterol oxidase containing noncovalently bound FAD. Protein Science, 2008, 17, 409-419.	7.6	22
65	Structural Features of Transiently Modified Beta-Lactoglobulin Relevant to the Stable Binding of Large Hydrophobic Molecules. Protein Journal, 2006, 25, 1-15.	1.6	21
66	Iron-Nucleated Folding of a Metalloprotein in High Urea: Resolution of Metal Binding and Protein Folding Events. Biochemistry, 2010, 49, 6627-6634.	2.5	21
67	Integrating the information from proteomic approaches: A â€œthiolomicsâ€•approach to assess the role of thiols in protein-based networks. Food Research International, 2013, 54, 980-987.	6.2	21
68	Interplay between starch and proteins in waxy wheat. Journal of Cereal Science, 2017, 75, 198-204.	3.7	21
69	Enriching gluten-free rice pasta with soybean and sweet potato flours. Journal of Food Science and Technology, 2018, 55, 2641-2648.	2.8	21
70	Two Latent and Two Hyperstable Polymeric Forms of Human Neuroserpin. Biophysical Journal, 2010, 99, 3402-3411.	0.5	20
71	Molecular Basis of the Interaction between Proteins of Plant Origin and Proanthocyanidins in a Model Wine System. Journal of Agricultural and Food Chemistry, 2010, 58, 11969-11976.	5.2	20
72	Shelf life of case-ready beef steaks (Semitendinosus muscle) stored in oxygen-depleted master bag system with oxygen scavengers and CO2/N2 modified atmosphere packaging. Meat Science, 2013, 93, 477-484.	5.5	20

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73	Purified sakacin A shows a dual mechanism of action against Listeria spp: proton motive force dissipation and cell wall breakdown. FEMS Microbiology Letters, 2012, 334, 143-149.	1.8	19
74	Structural consequences of the interaction of puroindolines with gluten proteins. Food Chemistry, 2018, 253, 255-261.	8.2	19
75	Reversible, Non-Denaturing Metal Substitution in Bovine Adrenodoxin and Spinach Ferredoxin and the Different Reactivities of [2Fe-2S]-Cluster-Containing Proteins. FEBS Journal, 1996, 239, 818-826.	0.2	18
76	Maize Prolamins Resistant to Peptic-tryptic Digestion Maintain Immune-recognition by IgA from Some Celiac Disease Patients. Plant Foods for Human Nutrition, 2012, 67, 24-30.	3.2	18
77	Amino-acid sequences of the alpha- and beta-subunits of hemerythrin from Lingula reevii. BBA - Proteins and Proteomics, 1994, 1208, 277-285.	2.1	17
78	Comparison of lipid effects on structural features of hard and soft wheat flour proteins assessed by front-face fluorescence. Food Chemistry, 2012, 133, 1011-1016.	8.2	17
79	Macromolecular and Micronutrient Profiles of Sprouted Chickpeas to Be Used for Integrating Cerealâ€Based Food. Cereal Chemistry, 2017, 94, 82-88.	2.2	17
80	Reversible and non-denaturing replacement of iron by cadmium in Clostridium pasteurianum ferredoxin. FEBS Journal, 1994, 222, 639-644.	0.2	16
81	Aggregation of Proteins in Whey from Raw and Heat-Processed Milk: Formation of Soluble Macroaggregates and Nutritional Consequences. LWT - Food Science and Technology, 1998, 31, 522-529.	5.2	16
82	Modification of celluloseâ€based packaging materials for enzyme immobilization. Packaging Technology and Science, 2010, 23, 47-57.	2.8	16
83	Unfolding of betaâ€lactoglobulin on the surface of polystyrene nanoparticles: Experimental and computational approaches. Proteins: Structure, Function and Bioinformatics, 2014, 82, 1272-1282.	2.6	16
84	Surface properties of the fat globule in treated creams. International Dairy Journal, 1997, 7, 375-380.	3.0	15
85	Significance of redox-active cysteines in human FAD synthase isoform 2. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 2086-2095.	2.3	15
86	Purification and properties of a membrane-bound NADH-cytochrome-b5 reductase from erythrocytes of the sipunculid worm, Phascolopsis gouldii. BBA - Proteins and Proteomics, 1989, 999, 147-156.	2.1	14
87	GroEL-assisted refolding of adrenodoxin during chemical cluster insertion. FEBS Journal, 2001, 268, 2421-2429.	0.2	14
88	Thermal stability of the [Fe(SCys)4] site in Clostridium pasteurianum rubredoxin: contributions of the local environment and Cys ligand protonation. Journal of Biological Inorganic Chemistry, 2002, 7, 427-436.	2.6	14
89	Analysis of Pseudomonas aeruginosa Cell Envelope Proteome by Capture of Surface-Exposed Proteins on Activated Magnetic Nanoparticles. PLoS ONE, 2012, 7, e51062.	2.5	14
90	Functional implications of the interaction between HscB and IscU in the biosynthesis of FeS clusters. Journal of Biological Inorganic Chemistry, 2015, 20, 1039-1048.	2.6	14

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91	Bio-Functional and Structural Properties of Pasta Enriched with a Debranning Fraction from Purple Wheat. Foods, 2020, 9, 163.	4.3	14
92	Contribution of the [FeII(SCys)4] site to the thermostability of rubredoxins. Journal of Biological Inorganic Chemistry, 2004, 9, 297-306.	2.6	13
93	Dâ€strand perturbation and amyloid propensity in betaâ€2 microglobulin. FEBS Journal, 2011, 278, 2349-2358.	4.7	13
94	TgaA, a VirB1-Like Component Belonging to a Putative Type IV Secretion System of Bifidobacterium bifidum MIMBb75. Applied and Environmental Microbiology, 2014, 80, 5161-5169.	3.1	13
95	Modifications in Disulfide Reactivity of Milk Induced by Different Pasteurization Conditions. Journal of Food Science, 1996, 61, 495-500.	3.1	12
96	Structure and function of the apoA-IV T347S and Q360H common variants. Biochemical and Biophysical Research Communications, 2010, 393, 126-130.	2.1	12
97	â€œIron primingâ€•guides folding of denatured aporubredoxins. Journal of Biological Inorganic Chemistry, 2008, 13, 981-991.	2.6	11
98	Myohemerythrin from the sipunculid, Phascolopsis gouldii: purification, properties and amino acid sequence. BBA - Proteins and Proteomics, 1992, 1122, 136-142.	2.1	10
99	Recognition and uptake of free and nanoparticleâ€bound betalactoglobulin â€“ a food allergen â€“ by human monocytes. Molecular Nutrition and Food Research, 2011, 55, 1708-1716.	3.3	10
100	Molecular Recognition between Azotobacter vinelandii Rhodanese and a Sulfur Acceptor Protein. Biological Chemistry, 2003, 384, 1473-1481.	2.5	9
101	The effects of an ideal Î²-turn on Î²-2 microglobulin fold stability. Journal of Biochemistry, 2011, 150, 39-47.	1.7	9
102	Acceleration by Fe(II) of thiomolybdate formation from aqueous molybdate and sulfide. A simplified synthesis of [Fe(MoS4)2]3â^'. Inorganica Chimica Acta, 1992, 193, 125-128.	2.4	8
103	Cluster-iron substitution is related to structural and functional features of adrenodoxin mutants and to their redox states. FEBS Journal, 1998, 251, 673-681.	0.2	8
104	Electrostatics of folded and unfolded bovine Î²-lactoglobulin. Amino Acids, 2012, 42, 2019-2030.	2.7	8
105	Structural changes in emulsion-bound bovine beta-lactoglobulin affect its proteolysis and immunoreactivity. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 805-813.	2.3	8
106	Serum Proteome in a Sporadic Amyotrophic Lateral Sclerosis Geographical Cluster. Proteomics - Clinical Applications, 2017, 11, 1700043.	1.6	8
107	Defining the Overall Quality of Cowpeaâ€Enriched Riceâ€Based Breakfast Cereals. Cereal Chemistry, 2017, 94, 151-157.	2.2	8
108	Uptake of iron by apoferritin from a ferric dihydrolipoate complex. FEBS Journal, 1991, 199, 181-186.	0.2	7

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109	A new synthetic method for MS42â˜ (M î—» Mo, W). Evidence for catalysis of aqueous MO42â˜'/MS42â˜' interconversion by thiols. Inorganica Chimica Acta, 1992, 191, 197-202.	2.4	7
110	Iron Binding Properties of Recombinant Class A Protein Disulfide Isomerase from Arabidopsis thaliana. Biochemistry, 2017, 56, 2116-2125.	2.5	7
111	Beta-Lactoglobulin as a Model Food Protein: How to Promote, Prevent, and Exploit Its Unfolding Processes. Molecules, 2022, 27, 1131.	3.8	7
112	Effect of Highâ€Pressure Processing on the Features of Wheat Milling Byâ€products. Cereal Chemistry, 2014, 91, 318-320.	2.2	6
113	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.	3.1	6
114	Effects of starch addition on the activity and specificity of foodâ€grade lipases. Biotechnology and Applied Biochemistry, 2019, 66, 607-616.	3.1	6
115	Improved Protocols for ELISA Determination of Gliadin in Glucose Syrups. Cereal Chemistry, 2004, 81, 15-18.	2.2	5
116	Rubredoxin refolding on nanostructured hydrophobic surfaces: Evidence for a new type of biomimetic chaperones. Proteins: Structure, Function and Bioinformatics, 2014, 82, 3154-3162.	2.6	5
117	Soybean-Enriched Snacks Based on African Rice. Foods, 2016, 5, 38.	4.3	5
118	Dissociation of human alphaB-crystallin aggregates by thiocyanate is structurally and functionally reversible. The Protein Journal, 2000, 19, 311-318.	1.1	4
119	Surface Layer of Lactobacillus helveticus MIMLh5 Promotes Endocytosis by Dendritic Cells. Applied and Environmental Microbiology, 2019, 85, .	3.1	4
120	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.	2.3	4
121	Serum metal evaluation in a small cohort of Amyotrophic Lateral Sclerosis patients reveals high levels of thiophylic species. Peptidomics, 2016, 2, .	0.3	3
122	Topological features of the intermolecular contacts in gluten-forming proteins: Exploring a novel methodological approach based on gold nanoparticles. Food Research International, 2019, 119, 492-498.	6.2	2
123	Redox Titration of Flavoproteins: An Overview. Methods in Molecular Biology, 2021, 2280, 119-133.	0.9	2
124	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.	3.4	2
125	Wards in the keyway: amino acids with anomalous pK as in calycins. Amino Acids, 2012, 43, 2457-2468.	2.7	1
126	Stabilization of the â€œopenâ€•conformer of apoIscU on the surface of polystyrene nanobeads accelerates assembly of a 2Fe2S structure. Peptidomics, 2016, 2, .	0.3	1

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127	Greetings from foodland: Teaching biochemistry to BS students in foodâ€related courses in Italy. Biochemistry and Molecular Biology Education, 2019, 47, 394-403.	1.2	1
128	Circular Dichroism to Probe the Synthesis, Transfer, and Stability of Fe-S Clusters. Methods in Molecular Biology, 2021, 2353, 209-229.	0.9	1
129	Future of Grain Science Series: Italy. Cereal Foods World, 2015, 60, 27-31.	0.2	0