

Nushin Bh Aghajari

List of Publications by Year in descending order

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77
papers

2,775
citations

186265

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h-index

182427

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80
all docs

80
docs citations

80
times ranked

2928
citing authors

#	ARTICLE	IF	CITATIONS
1	Structures of the psychrophilic <i>Alteromonas haloplanctis</i> α -amylase give insights into cold adaptation at a molecular level. <i>Structure</i> , 1998, 6, 1503-1516.	3.3	212
2	Crystal structures of the psychrophilic α -amylase from <i>Alteromonas haloplanctis</i> in its native form and complexed with an inhibitor. <i>Protein Science</i> , 1998, 7, 564-572.	7.6	170
3	The Structure of Barley α -Amylase Isozyme 1 Reveals a Novel Role of Domain C in Substrate Recognition and Binding. <i>Structure</i> , 2003, 11, 973-984.	3.3	142
4	Crystal structures of a psychrophilic metalloprotease reveal new insights into catalysis by cold-adapted proteases. <i>Proteins: Structure, Function and Bioinformatics</i> , 2003, 50, 636-647.	2.6	106
5	Insights into Early Extracellular Matrix Evolution: Spongin Short Chain Collagen-Related Proteins Are Homologous to Basement Membrane Type IV Collagens and Form a Novel Family Widely Distributed in Invertebrates. <i>Molecular Biology and Evolution</i> , 2006, 23, 2288-2302.	8.9	106
6	Structure of a Full Length Psychrophilic Cellulase from <i>Pseudoalteromonas haloplanktis</i> revealed by X-ray Diffraction and Small Angle X-ray Scattering. <i>Journal of Molecular Biology</i> , 2005, 348, 1211-1224.	4.2	97
7	A Flexible Loop at the Dimer Interface is a Part of the Active Site of the Adjacent Monomer of <i>Escherichia coli</i> Orotate Phosphoribosyltransferase. <i>Biochemistry</i> , 1996, 35, 3803-3809.	2.5	84
8	Structural basis of fibrillar collagen trimerization and related genetic disorders. <i>Nature Structural and Molecular Biology</i> , 2012, 19, 1031-1036.	8.2	79
9	Structural basis of homo- and heterotrimerization of collagen I. <i>Nature Communications</i> , 2017, 8, 14671.	12.8	79
10	Structuring Detergents for Extracting and Stabilizing Functional Membrane Proteins. <i>PLoS ONE</i> , 2011, 6, e18036.	2.5	77
11	Structural basis of α -amylase activation by chloride. <i>Protein Science</i> , 2002, 11, 1435-1441.	7.6	76
12	Trehalulose Synthase Native and Carbohydrate Complexed Structures Provide Insights into Sucrose Isomerization. <i>Journal of Biological Chemistry</i> , 2007, 282, 28126-28136.	3.4	69
13	Enhancement of the thermostability and the catalytic efficiency of <i>Bacillus pumilus</i> CBS protease by site-directed mutagenesis. <i>Biochimie</i> , 2010, 92, 360-369.	2.6	69
14	X-Ray Crystal Structure of the Multidomain Endoglucanase Cel9G from <i>Clostridium cellulolyticum</i> Complexed with Natural and Synthetic Cello-Oligosaccharides. <i>Journal of Bacteriology</i> , 2003, 185, 4127-4135.	2.2	68
15	Oligosaccharide Binding to Barley α -Amylase 1. <i>Journal of Biological Chemistry</i> , 2005, 280, 32968-32978.	3.4	67
16	Crystallographic Evidence of a Transglycosylation Reaction: Ternary Complexes of a Psychrophilic α -Amylase. <i>Biochemistry</i> , 2002, 41, 4273-4280.	2.5	63
17	The pair of sugar tongs site on the non-catalytic domain C of barley α -amylase participates in substrate binding and activity. <i>FEBS Journal</i> , 2007, 274, 5055-5067.	4.7	61
18	The acid tolerant l-arabinose isomerase from the food grade <i>Lactobacillus sakei</i> 23K is an attractive d-tagatose producer. <i>Bioresource Technology</i> , 2010, 101, 9171-9177.	9.6	60

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19	The ABC transporter BmrA from <i>Bacillus subtilis</i> is a functional dimer when in a detergent-solubilized state. <i>Biochemical Journal</i> , 2006, 395, 345-353.	3.7	57
20	The linker region plays a key role in the adaptation to cold of the cellulase from an Antarctic bacterium. <i>Biochemical Journal</i> , 2007, 407, 293-302.	3.7	57
21	Crystallization and preliminary X-ray diffraction studies of α -amylase from the antarctic psychrophile <i>Alteromonas haloplanctis</i> A23. <i>Protein Science</i> , 1996, 5, 2128-2129.	7.6	54
22	Engineering of the α -amylase from <i>Geobacillus stearothermophilus</i> US100 for detergent incorporation. <i>Biotechnology and Bioengineering</i> , 2009, 102, 380-389.	3.3	51
23	The overexpression of the SAPB of <i>Bacillus pumilus</i> CBS and mutated sapB-L31I/T33S/N99Y alkaline proteases in <i>Bacillus subtilis</i> DB430: New attractive properties for the mutant enzyme. <i>Bioresource Technology</i> , 2012, 105, 142-151.	9.6	46
24	Rational design of <i>Bacillus stearothermophilus</i> US100 l-arabinose isomerase: Potential applications for d-tagatose production. <i>Biochimie</i> , 2009, 91, 650-653.	2.6	44
25	Specific inhibition of barley α -amylase β 2 by barley α -amylase/subtilisin inhibitor depends on charge interactions and can be conferred to isozyme β 1 by mutation. <i>FEBS Journal</i> , 2000, 267, 1019-1029.	0.2	37
26	Efficient bioconversion of lactose in milk and whey: immobilization and biochemical characterization of a β -galactosidase from the dairy <i>Streptococcus thermophilus</i> LMD9 strain. <i>Research in Microbiology</i> , 2010, 161, 515-525.	2.1	36
27	Enhancement of the thermostability of the maltogenic amylase MAUS149 by Gly312Ala and Lys436Arg substitutions. <i>Bioresource Technology</i> , 2011, 102, 1740-1746.	9.6	34
28	Structural Basis for the Acceleration of Procollagen Processing by Procollagen C-Proteinase Enhancer-1. <i>Structure</i> , 2018, 26, 1384-1392.e3.	3.3	30
29	Identification and characterization of inhibitors of cytoplasmic 5 α -nucleotidase cN-II issued from virtual screening. <i>Biochemical Pharmacology</i> , 2013, 85, 497-506.	4.4	29
30	The acid-tolerant L-arabinose isomerase from the mesophilic <i>Shewanella</i> sp. ANA-3 is highly active at low temperatures. <i>Microbial Cell Factories</i> , 2011, 10, 96.	4.0	28
31	Probing the Crucial Role of Leu31 and Thr33 of the <i>Bacillus pumilus</i> CBS Alkaline Protease in Substrate Recognition and Enzymatic Depilation of Animal Hide. <i>PLoS ONE</i> , 2014, 9, e108367.	2.5	28
32	Probing the Essential Catalytic Residues and Substrate Affinity in the Thermoactive <i>Bacillus stearothermophilus</i> US100 l-Arabinose Isomerase by Site-Directed Mutagenesis. <i>Journal of Bacteriology</i> , 2007, 189, 3556-3563.	2.2	27
33	Cooperative Effect of Two Surface Amino Acid Mutations (Q252L and E170K) in Glucose Dehydrogenase from <i>Bacillus megaterium</i> IWG3 on Stabilization of Its Oligomeric State. <i>Applied and Environmental Microbiology</i> , 2005, 71, 3285-3293.	3.1	26
34	The attractive recombinant phytase from <i>Bacillus licheniformis</i> : biochemical and molecular characterization. <i>Applied Microbiology and Biotechnology</i> , 2014, 98, 5937-5947.	3.6	24
35	Active site coupling in <i>Plasmodium falciparum</i> GMP synthetase is triggered by domain rotation. <i>Nature Communications</i> , 2015, 6, 8930.	12.8	24
36	Expanding the Kinome World: A New Protein Kinase Family Widely Conserved in Bacteria. <i>Journal of Molecular Biology</i> , 2017, 429, 3056-3074.	4.2	24

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37	Exploring the acidotolerance of β -galactosidase from <i>Lactobacillus delbrueckii</i> subsp. <i>bulgaricus</i> : an attractive enzyme for lactose bioconversion. <i>Research in Microbiology</i> , 2009, 160, 775-784.	2.1	23
38	C-terminal Residues Regulate Localization and Function of the Antiapoptotic Protein Bfl-1. <i>Journal of Biological Chemistry</i> , 2009, 284, 30257-30263.	3.4	22
39	Structural determinants of product specificity of sucrose isomerases. <i>FEBS Letters</i> , 2009, 583, 1964-1968.	2.8	22
40	The importance of an extra loop in the B-domain of an α -amylase from <i>B. stearothermophilus</i> US100. <i>Biochemical and Biophysical Research Communications</i> , 2009, 385, 78-83.	2.1	22
41	Specificity Modulation of Barley α -Amylase through Biased Random Mutagenesis Involving a Conserved Tripeptide in β α ' β Loop 7 of the Catalytic (β/α) ₈ -Barrel Domain. <i>Biochemistry</i> , 2001, 40, 12844-12854.	2.5	21
42	Expression, purification, crystallization and preliminary X-ray crystallographic studies of a psychrophilic cellulase from <i>Pseudoalteromonas haloplanktis</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2003, 59, 1256-1258.	2.5	21
43	Identification of critical residues for the activity and thermostability of <i>Streptomyces</i> sp. SK glucose isomerase. <i>Applied Microbiology and Biotechnology</i> , 2013, 97, 9715-9726.	3.6	21
44	Overexpression, purification, crystallization and preliminary diffraction studies of the <i>Protaminobacter rubrum</i> sucrose isomerase SmuA. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2006, 62, 74-76.	0.7	20
45	Multi-site substrate binding and interplay in barley α -amylase 1. <i>FEBS Letters</i> , 2008, 582, 2567-2571.	2.8	18
46	The acid tolerant and cold-active β -galactosidase from <i>Lactococcus lactis</i> strain is an attractive biocatalyst for lactose hydrolysis. <i>Antonie Van Leeuwenhoek</i> , 2013, 103, 701-712.	1.7	18
47	Identification of Noncompetitive Inhibitors of Cytosolic 5'-Nucleotidase II Using a Fragment-Based Approach. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 9680-9696.	6.4	18
48	Engineered glucose isomerase from <i>Streptomyces</i> sp. SK is resistant to Ca ²⁺ inhibition and Co ²⁺ independent. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2012, 39, 537-546.	3.0	16
49	Probing the Role of Divalent Metal Ions in a Bacterial Psychrophilic Metalloprotease: Binding Studies of an Enzyme in the Crystalline State by X-Ray Crystallography. <i>Journal of Bacteriology</i> , 2003, 185, 4195-4203.	2.2	15
50	Biased mutagenesis in the N-terminal region by degenerate oligonucleotide gene shuffling enhances secretory expression of barley α -amylase 2 in yeast. <i>Protein Engineering, Design and Selection</i> , 2005, 18, 515-526.	2.1	13
51	Structural determinants increasing flexibility confer cold adaptation in psychrophilic phosphoglycerate kinase. <i>Extremophiles</i> , 2019, 23, 495-506.	2.3	13
52	Expression, purification, crystallization and preliminary X-ray crystallographic studies of the trehalulose synthase MutB from <i>Pseudomonas mesoacidophila</i> MX-45. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2005, 61, 100-103.	0.7	11
53	Bacterial sucrose isomerases: properties and structural studies. <i>Biologia (Poland)</i> , 2008, 63, 1020-1027.	1.5	11
54	Mutations inducing an active-site aperture in <i>Rhizobium</i> sp. sucrose isomerase confer hydrolytic activity. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2013, 69, 298-307.	2.5	11

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55	Expression, purification and preliminary crystallographic studies of Î±-amylase isozyme 1 from barley seeds. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2002, 58, 683-686.	2.5	10
56	Crystallization and Preliminary X-ray Diffraction Studies on the Apo form of Orotate Phosphoribosyltransferase from <i>Escherichia coli</i> . <i>Journal of Molecular Biology</i> , 1994, 241, 292-294.	4.2	9
57	Supramolecular stabilization of acid tolerant l-arabinose isomerase from <i>Lactobacillus sakei</i> . <i>Chemical Communications</i> , 2011, 47, 12307.	4.1	9
58	Lead optimization and biological evaluation of fragment-based cN-II inhibitors. <i>European Journal of Medicinal Chemistry</i> , 2019, 168, 28-44.	5.5	9
59	Exploring molecular determinants of polysaccharide lyase family 6A1 enzyme activity. <i>Glycobiology</i> , 2021, 31, 1557-1570.	2.5	9
60	An enzyme family reunion similarities, differences and eccentricities in actions on Î±-glucans. <i>Biologia (Poland)</i> , 2008, 63, 967-979.	1.5	8
61	Two different centered monoclinic crystals of the <i>E. coli</i> outer-membrane protein OmpF originate from the same building block. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2016, 1858, 326-332.	2.6	8
62	Helices on Interdomain Interface Couple Catalysis in the ATPase Domain with Allostery in <i>Plasmodium falciparum</i> GMP Synthetase. <i>ChemBioChem</i> , 2020, 21, 2805-2817.	2.6	7
63	Involvement of cysteine 306 and alanine 63 in the thermostability and oligomeric organization of glucose isomerase from <i>Streptomyces sp. SK</i> . <i>Biologia (Poland)</i> , 2009, 64, 845-851.	1.5	6
64	Production and crystallization of the C-propeptide trimer from human procollagen III. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2012, 68, 1209-1213.	0.7	6
65	Insights into sucrose isomerization from crystal structures of the <i>Pseudomonas mesoacidophila</i> MX-45 sucrose isomerase, MutB. <i>Biocatalysis and Biotransformation</i> , 2008, 26, 111-119.	2.0	5
66	Roles of multiple surface sites, long substrate binding clefts, and carbohydrate binding modules in the action of amylolytic enzymes on polysaccharide substrates. <i>Biocatalysis and Biotransformation</i> , 2008, 26, 59-67.	2.0	4
67	Differential properties of native and tagged or untagged recombinant glucose isomerases of <i>Streptomyces sp. SK</i> and possible implication of the glycosylation. <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2013, 94, 82-87.	1.8	4
68	Structure and catalytic regulation of <i>Plasmodium falciparum</i> IMP specific nucleotidase. <i>Nature Communications</i> , 2020, 11, 3228.	12.8	4
69	New Insight into Structure/Function Relationships in Plant .ALPHA.-Amylase Family GH13 Members. <i>Journal of Applied Glycoscience</i> (1999), 2010, 57, 157-162.	0.7	4
70	Diffraction anisotropy falloff in the direction of the detergent belt for two centered monoclinic crystals of OmpF. <i>Data in Brief</i> , 2016, 7, 726-729.	1.0	3
71	Structure/Function Relationships of Sucrose Isomerases with Different Product Specificity. <i>Journal of Applied Glycoscience</i> (1999), 2010, 57, 219-228.	0.7	2
72	The <i>Candida glabrata</i> glycogen branching enzyme structure reveals unique features of branching enzymes of the <i>Saccharomycetaceae</i> phylum. <i>Glycobiology</i> , 2022, 32, 343-355.	2.5	2

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73	Tertiary and Quaternary Structure Organization in GMP Synthetases: Implications for Catalysis. <i>Biomolecules</i> , 2022, 12, 871.	4.0	2
74	Interactions of barley α -amylase isozymes with Ca^{2+} , substrates and proteinaceous inhibitors. <i>Biocatalysis and Biotransformation</i> , 2006, 24, 83-93.	2.0	1
75	Mechanism of allostery and catalysis in <i>P. falciparum</i> GMP Synthetase. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2017, 73, C248-C248.	0.1	0
76	Abstract 3835: Identification and characterization of inhibitors of 5'-nucleotidase cN-II issued from virtual screening. , 2012, , .		0
77	Fibrillar Collagen Trimerization: Structural Basis and Related Genetic Disorders. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 2014, 70, C1052-C1052.	0.1	0