Simonetta Bartolucci

List of Publications by Year
in descending order

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115 papers	3,484 citations	136950 32 h-index	182427 51 g-index
120 all docs	120 docs citations	120 times ranked	2953 citing authors

#	Article	IF	Citations
1	Enzyme dynamics and hydrogen tunnelling in a thermophilic alcohol dehydrogenase. Nature, 1999, 399, 496-499.	27.8	568
2	Stabilization of Enzymes against Thermal Stress and Freeze-Drying by Mannosylglycerate. Applied and Environmental Microbiology, 1997, 63, 4020-4025.	3.1	111
3	An Autonomously Replicating Transforming Vector for Sulfolobus solfataricus. Journal of Bacteriology, 1998, 180, 3237-3240.	2.2	101
4	The chaperonin from the archaeon Sulfolobus solfataricus promotes correct refolding and prevents thermal denaturation in vitro. Protein Science, 1994, 3, 1436-1443.	7.6	94
5	A protein disulfide oxidoreductase from the archaeon Pyrococcus furiosus contains two thioredoxin fold units. Nature Structural Biology, 1998, 5, 602-611.	9.7	88
6	Characterization of the Sulfolobus hostâ€“SSV2 virus interaction. Extremophiles, 2006, 10, 615-627.	2.3	68
7	Cloning and overexpression in Escherichia coli of the genes encoding NAD-dependent alcohol dehydrogenase from two Sulfolobus species. Journal of Bacteriology, 1996, 178, 301-305.	2.2	56
8	The Purification, Cloning, and High Level Expression of a Glutaredoxin-like Protein from the Hyperthermophilic Archaeon Pyrococcus furiosus. Journal of Biological Chemistry, 1995, 270, 5748-5755.	3.4	55
9	Purification and characterization of the alcohol dehydrogenase from a novel strain of Bacillus stearothermophilus growing at 70Â°C. International Journal of Biochemistry and Cell Biology, 1996, 28, 239-246.	2.8	55
10	Biochemical characterization of a novel thermostable Î²-glucosidase from Dictyoglomus turgidum. International Journal of Biological Macromolecules, 2018, 113, 783-791.	7.5	54
11	Malic enzyme from archaebacterium Sulfolobus solfataricus. Purification, structure, and kinetic properties.. Journal of Biological Chemistry, 1987, 262, 7725-7731.	3.4	52
12	Stability and activity of a thermostable malic enzyme in denaturants and water-miscible organic solvents. FEBS Journal, 1989, 183, 25-30.	0.2	49
13	Malic enzyme from archaebacterium Sulfolobus solfataricus. Purification, structure, and kinetic properties. Journal of Biological Chemistry, 1987, 262, 7725-31.	3.4	49
14	A novel arsenate reductase from the bacterium Thermus thermophilus HB27: Its role in arsenic detoxification. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 2071-2079.	2.3	48
15	Diversity of bacteria and archaea from two shallow marine hydrothermal vents from Vulcano Island. Extremophiles, 2017, 21, 733-742.	2.3	48
16	Bacillus coagulans MA-13: a promising thermophilic and cellulolytic strain for the production of lactic acid from lignocellulosic hydrolysate. Biotechnology for Biofuels, 2017, 10, 210.	6.2	48
17	Functional properties of the protein disulfide oxidoreductase from the archaeon Pyrococcus furiosus. FEBS Journal, 2004, 271, 3437-3448.	0.2	47
18	MarR-Like Transcriptional Regulator Involved in Detoxification of Aromatic Compounds in Sulfolobus solfataricus. Journal of Bacteriology, 2007, 189, 7351-7360.	2.2	47

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19	Transcriptome analysis of Sulfolobus solfataricus infected with two related fuselloviruses reveals novel insights into the regulation ofÂCRISPR-Cas system. Biochimie, 2015, 118, 322-332.	2.6	43
20	Identification and molecular characterization of an endoglucanase gene, celS , from the extremely thermophilic archaeon Sulfolobus solfataricus. Extremophiles, 2001, 5, 213-219.	2.3	42
21	A few amino acid substitutions are responsible for the higher thermostability of a novel NAD+-dependent bacillar alcohol dehydrogenase. FEBS Journal, 1994, 222, 345-352.	0.2	40
22	Characterization of a multifunctional protein disulfide oxidoreductase from Sulfolobus solfataricus. FEBS Journal, 2006, 273, 5407-5420.	4.7	38
23	Thermus thermophilus as source of thermozymes for biotechnological applications: homologous expression and biochemical characterization of an Î±-galactosidase. Microbial Cell Factories, 2017, 16, 28.	4.0	38
24	Structural and thermal stability analysis of Escherichia coli and Alicyclobacillus acidocaldarius thioredoxin revealed a molten globule-like state in thermal denaturation pathway of the proteins: an infrared spectroscopic study. Biochemical Journal, 2003, 373, 875-883.	3.7	37
25	Sensing and adapting to environmental stress: the archaeal tactic. Frontiers in Bioscience - Landmark, 2004, 9, 2909.	3.0	37
26	A novel E. coli biosensor for detecting aromatic aldehydes based on a responsive inducible archaeal promoter fused to the green fluorescent protein. Applied Microbiology and Biotechnology, 2009, 82, 67-77.	3.6	37
27	Thermoadaptation of a mesophilic hygromycin B phosphotransferase by directed evolution in hyperthermophilic Archaea: selection of a stable genetic marker for DNA transfer into Sulfolobus solfataricus. Extremophiles, 2001, 5, 153-159.	2.3	36
28	Identification and characterization of 1-Cys peroxiredoxin from Sulfolobus solfataricus and its involvement in the response to oxidative stress. FEBS Journal, 2006, 273, 721-731.	4.7	36
29	Seed culture pre-adaptation of Bacillus coagulans MA-13 improves lactic acid production in simultaneous saccharification and fermentation. Biotechnology for Biofuels, 2019, 12, 45.	6.2	36
30	Structure and properties of a thermophilic and thermostable DNA polymerase isolated from Sulfolobus solfataricus. Systematic and Applied Microbiology, 1986, 7, 337-341.	2.8	35
31	Peroxiredoxins as cellular guardians in Sulfolobus solfataricusâ€“ characterization of Bcp1, Bcp3 and Bcp4. FEBS Journal, 2008, 275, 2067-2077.	4.7	35
32	Transcriptional Regulation of the Gene Encoding an Alcohol Dehydrogenase in the Archaeon Sulfolobus solfataricus Involves Multiple Factors and Control Elements. Journal of Bacteriology, 2003, 185, 3926-3934.	2.2	33
33	Galactomannan degradation by thermophilic enzymes: a hot topic for biotechnological applications. World Journal of Microbiology and Biotechnology, 2019, 35, 32.	3.6	33
34	Asn249Tyr Substitution at the Coenzyme Binding Domain Activates Sulfolobus solfataricus Alcohol Dehydrogenase and Increases Its Thermal Stability. Biochemistry, 1999, 38, 3043-3054.	2.5	32
35	Development of a genetic system for hyperthermophilic Archaea: expression of a moderate thermophilic bacterial alcohol dehydrogenase gene inSulfolobus solfataricus. FEMS Microbiology Letters, 2003, 218, 115-120.	1.8	32
36	The Machinery for Oxidative Protein Folding in Thermophiles. Antioxidants and Redox Signaling, 2008, 10, 157-170.	5.4	31

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37	Structural Analysis of BldR from Sulfolobus solfataricus Provides Insights into the Molecular Basis of Transcriptional Activation in Archaea by MarR Family Proteins. Journal of Molecular Biology, 2009, 388, 559-569.	4.2	31
38	Responding to toxic compounds: a genomic and functional overview of Archaea. Frontiers in Bioscience - Landmark, 2013, 18, 165.	3.0	31
39	New virus isolates from Italian hydrothermal environments underscore the biogeographic pattern in archaeal virus communities. ISME Journal, 2020, 14, 1821-1833.	9.8	29
40	A single point mutation (Glu85Arg) increases the stability of the thioredoxin from Escherichia coli. Protein Engineering, Design and Selection, 2001, 14, 255-260.	2.1	28
41	Multiple catalytically active thioredoxin folds: a winning strategy for many functions. Cellular and Molecular Life Sciences, 2010, 67, 3797-3814.	5.4	28
42	Thioredoxin from Bacillus acidocaldarius: characterization, high-level expression in Escherichia coli and molecular modelling. Biochemical Journal, 1997, 328, 277-285.	3.7	27
43	Insights on a New PDI-like Family: Structural and Functional Analysis of a Protein Disulfide Oxidoreductase from the Bacterium Aquifex aeolicus. Journal of Molecular Biology, 2006, 356, 155-164.	4.2	26
44	Characterization of a promiscuous cadmium and arsenic resistance mechanism in Thermus thermophilus HB27 and potential application of a novel bioreporter system. Microbial Cell Factories, 2018, 17, 78.	4.0	26
45	Insights into the catalytic mechanism of the Bcp family: Functional and structural analysis of Bcp1 from Sulfolobus solfataricus. Proteins: Structure, Function and Bioinformatics, 2009, 76, 995-1006.	2.6	25
46	T _{lys} , a Newly Identified Sulfolobus Spindle-Shaped Virus 1 Transcript Expressed in the Lysogenic State, Encodes a DNA-Binding Protein Interacting at the Promoters of the Early Genes. Journal of Virology, 2013, 87, 5926-5936.	3.4	25
47	C68 from the Sulfolobus islandicus plasmidâ€“virus pSSVx is a novel member of the AbrB-like transcription factor family. Biochemical Journal, 2011, 435, 157-166.	3.7	24
48	Structural and functional studies of Stf76 from the Sulfolobus islandicus plasmidâ€“virus pSSVx: a novel peculiar member of the winged helixâ€“turnâ€“helix transcription factor family. Nucleic Acids Research, 2014, 42, 5993-6011.	14.5	24
49	Unravelling the Role of the F55 Regulator in the Transition from Lysogeny to UV Induction of Sulfolobus Spindle-Shaped Virus 1. Journal of Virology, 2015, 89, 6453-6461.	3.4	24
50	Identification and Physicochemical Characterization of BldR2 from Sulfolobus solfataricus, a Novel Archaeal Member of the MarR Transcription Factor Family. Biochemistry, 2011, 50, 6607-6621.	2.5	23
51	Kinetic interaction of 5-AZA-2'-deoxycytidine-5'-monophosphate and its 5'-triphosphate with deoxycytidylate deaminase. Molecular Pharmacology, 1984, 25, 436-40.	2.3	23
52	Decreasing the stability and changing the substrate specificity of the Bacillus stearothermophilus alcohol dehydrogenase by single amino acid replacements. Protein Engineering, Design and Selection, 1998, 11, 925-930.	2.1	22
53	NMR solution structure of a novel thioredoxin from Bacillus acidocaldarius. FEBS Journal, 2000, 267, 403-413.	0.2	22
54	Solution Structure and Backbone Dynamics of the K18G/R82EAlicyclobacillus acidocaldariusThioredoxin Mutant:Â A Molecular Analysis of Its Reduced Thermal Stabilityâ€,â€¡. Biochemistry, 2004, 43, 6043-6058.	2.5	22

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55	A thermophilic enzymatic cocktail for galactomannans degradation. Enzyme and Microbial Technology, 2018, 111, 7-11.	3.2	22
56	Identification and autonomous replication capability of a chromosomal replication origin from the archaeon Sulfolobus solfataricus. Extremophiles, 2004, 8, 385-391.	2.3	21
57	A Novel Member of the Protein Disulfide Oxidoreductase Family from Aeropyrum pernix K1: Structure, Function and Electrostatics. Journal of Molecular Biology, 2006, 362, 743-752.	4.2	21
58	Transcriptional Analysis of the Genetic Element pSSVx: Differential and Temporal Regulation of Gene Expression Reveals Correlation between Transcription and Replication. Journal of Bacteriology, 2007, 189, 6339-6350.	2.2	21
59	Molecular modeling and functional characterization of the monomeric primaseâ€“polymerase domain from the Sulfolobusâ€ƒsolfataricus plasmid pIT3. FEBS Journal, 2008, 275, 4389-4402.	4.7	21
60	An ArsR/SmtB family member regulates arsenic resistance genes unusually arranged in Thermus thermophilus HB27. Microbial Biotechnology, 2017, 10, 1690-1701.	4.2	21
61	Five-coordinate platinum(II) complexes containing substituted olefins: synthesis and cytostatic activity. Inorganica Chimica Acta, 1992, 197, 51-57.	2.4	20
62	Exploring the catalytic mechanism of the first dimeric Bcp: Functional, structural and docking analyses of Bcp4 from Sulfolobus solfataricus. Biochimie, 2010, 92, 1435-1444.	2.6	20
63	Isolation of a thermostable enzyme catalyzing disulfide bond formation from the archaebacteriumSulfolobus solfataricus. FEBS Letters, 1992, 303, 27-30.	2.8	19
64	A thioredoxin from the extreme thermophilic Archaeon Sulfolobus solfataricus. International Journal of Biochemistry & Cell Biology, 1994, 26, 375-380.	0.5	19
65	Biochemical characterization of a thermostable endomannanase/endoglucanase from Dictyoglomus turgidum. Extremophiles, 2018, 22, 131-140.	2.3	19
66	Enzymatic Antioxidant Signatures in Hyperthermophilic Archaea. Antioxidants, 2020, 9, 703.	5.1	19
67	Prediction and experimental testing of Bacillus acidocaldarius thioredoxin stability1. Biochemical Journal, 1999, 339, 309-317.	3.7	18
68	Prebiotic properties of Bacillus coagulans MA-13: production of galactoside hydrolyzing enzymes and characterization of the transglycosylation properties of a GH42 I²-galactosidase. Microbial Cell Factories, 2021, 20, 71.	4.0	18
69	A superoxide dismutase from the archaeon Sulfolobus solfataricus is an extracellular enzyme and prevents the deactivation by superoxide of cell-bound proteins. FEBS Journal, 2000, 267, 235-243.	0.2	17
70	Sulfolobus solfataricus protein disulphide oxidoreductase: insight into the roles of its redox sites. Protein Engineering, Design and Selection, 2008, 22, 19-26.	2.1	17
71	Genomic Insight of Alicyclobacillus mali FL18 Isolated From an Arsenic-Rich Hot Spring. Frontiers in Microbiology, 2021, 12, 639697.	3.5	17
72	The alcohol dehydrogenase gene: distribution among Sulfolobales and regulation inSulfolobus solfataricus. FEMS Microbiology Letters, 1999, 170, 31-39.	1.8	16

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73	Characterization and Functional Complementation of a Nonlethal Deletion in the Chromosome of a Î²-Glycosidase Mutant of Sulfolobus solfataricus. Journal of Bacteriology, 2003, 185, 3948-3957.	2.2	16
74	Temperature-, SDS-, and pH-Induced Conformational Changes in Protein Disulfide Oxidoreductase from the ArchaeonPyrococcusfuriosus:Â A Dynamic Simulation and Fourier Transform Infrared Spectroscopic Study. Journal of Proteome Research, 2005, 4, 1972-1980.	3.7	16
75	5-Aza-2â€²-deoxycytidine as inducer of differentiation and growth inhibition in mouse neuroblastoma cells. Cell Differentiation and Development, 1989, 27, 47-55.	0.4	15
76	pIT3, a cryptic plasmid isolated from the hyperthermophilic crenarchaeon Sulfolobus solfataricus IT3. Plasmid, 2006, 56, 35-45.	1.4	15
77	The interaction between the F55 virus-encoded transcription regulator and the RadA host recombinase reveals a common strategy in Archaea and Bacteria to sense the UV-induced damage to the host DNA. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2020, 1863, 194493.	1.9	15
78	Crystallization and Preliminary X-Ray Structure Analysis of a Hyperthermostable Thioltransferase from the ArchaeonPyrococcus furiosus. Journal of Structural Biology, 1997, 119, 1-5.	2.8	14
79	Computational Analysis of the Thermal Stability in Thioredoxins: A Molecular Dynamics Approach. Journal of Biomolecular Structure and Dynamics, 1998, 16, 437-446.	3.5	14
80	A standardized protocol for the UV induction of Sulfolobus spindle-shaped virus 1. Extremophiles, 2015, 19, 539-546.	2.3	14
81	Sulfolobus solfataricus thiol redox puzzle: characterization of an atypical protein disulfide oxidoreductase. Extremophiles, 2014, 18, 219-228.	2.3	13
82	Characterization of redox proteins from extreme thermophilic archaebacteria: studies on alcohol dehydrogenase and thioredoxins. Biosensors and Bioelectronics, 1995, 10, 135-140.	10.1	12
83	[7] Protein Disulfide oxidoreductase from Pyrococcus furiosus: Biochemical properties. Methods in Enzymology, 2001, 334, 62-73.	1.0	12
84	Effect of cytidine analogs on cell growth and differentiation on a human neuroblastoma line. Cell Biophysics, 1989, 15, 67-77.	0.4	11
85	Conformational stability and ligand binding properties of BldR, a member of the MarR family, from Sulfolobus solfataricus. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 1167-1172.	2.3	11
86	Antiproliferative effects and DNA hypomethylation by 5-aza-2â€²-deoxycytidine in human neuroblastoma cell lines. Anti-Cancer Drugs, 1993, 4, 629-636.	1.4	10
87	Draft Genome Sequence of Bacillus coagulans MA-13, a Thermophilic Lactic Acid Producer from Lignocellulose. Microbiology Resource Announcements, 2019, 8, .	0.6	10
88	Identification of a New Heavy-Metal-Resistant Strain of Geobacillus stearothermophilus Isolated from a Hydrothermally Active Volcanic Area in Southern Italy. International Journal of Environmental Research and Public Health, 2020, 17, 2678.	2.6	10
89	Metal-Tolerant Thermophiles: From the Analysis of Resistance Mechanisms to their Biotechnological Exploitation. The Open Biochemistry Journal, 2018, 12, 149-160.	0.5	10
90	DBF (Disulfide Bond Forming) Enzyme from the Hyperthermophilic Archaebacterium Sulfolobus Solfataricus Behaves Like a Molecular Chaperone. Biocatalysis, 1994, 11, 181-190.	0.9	9

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91	Prediction and experimental testing of Bacillus acidocaldarius thioredoxin stability1. Biochemical Journal, 1999, 339, 309.	3.7	9
92	High hydrostatic pressure-induced conformational changes in protein disulfide oxidoreductase from the hyperthermophilic archaeon Pyrococcus furiosus. A Fourier-transform infrared spectroscopic study. Molecular BioSystems, 2010, 6, 2015.	2.9	9
93	Oxalacetate decarâ˜ylase and pyruvate carâ˜ylase activities, and effect of sulfhydryl reagents in malic enzyme from Sulfolubus solfataricus. BBA - Proteins and Proteomics, 1988, 957, 301-311.	2.1	8
94	An Integrated Structural and Computational Study of the Thermostability of Two Thioredoxin Mutants from Alicyclobacillus acidocaldarius. Journal of Bacteriology, 2003, 185, 4285-4289.	2.2	8
95	Identification of a GDP-mannose pyrophosphorylase gene from Sulfolobus solfataricus. Gene, 2004, 332, 149-157.	2.2	8
96	Discovering Antioxidant Molecules in the Archaea Domain: Peroxiredoxin Bcp1 fromSulfolobus solfataricusProtects H9c2 Cardiomyoblasts from Oxidative Stress. Archaea, 2016, 2016, 1-10.	2.3	8
97	A Hyperthermoactive-Cas9 Editing Tool Reveals the Role of a Unique Arsenite Methyltransferase in the Arsenic Resistance System of Thermus thermophilus HB27. MBio, 2021, 12, e0281321.	4.1	8
98	High-level expression of Aliciclobacillus acidocaldarius thioredoxin in Pichia pastoris and Bacillus subtilis. Protein Expression and Purification, 2003, 30, 179-184.	1.3	7
99	A physicochemical investigation on the metal binding properties of TtSmtB, a thermophilic member of the ArsR/SmtB transcription factor family. International Journal of Biological Macromolecules, 2019, 138, 1056-1063.	7.5	7
100	Prediction and experimental testing of Bacillus acidocaldarius thioredoxin stability. Biochemical Journal, 1999, 339 (Pt 2), 309-17.	3.7	7
101	Gene expression of a thermostable beta-galactosidase in mammalian cells and its application in assays of eukaryotic promoter activity. Biotechnology and Applied Biochemistry, 1994, 19, 233-44.	3.1	7
102	Crystallization and preliminary X-ray diffraction studies of a protein disulfide oxidoreductase fromAquifex aeolicus. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 2076-2077.	2.5	6
103	Ultra-rapid glutathionylation of chymotrypsinogen in its molten globule-like conformation: A comparison to archaeal proteins. Scientific Reports, 2020, 10, 8943.	3.3	6
104	5-AZA-2â€²-Deoxycytidine Synergistic action with Thymidine on Leukemic Cells and Interaction of 5-AZA-dCMP with dCMP Deaminase. Advances in Experimental Medicine and Biology, 1986, 195 Pt B, 157-163.	1.6	5
105	The cytostatic activity of a five-coordinate Pt(II) complex: preliminary results. Inorganica Chimica Acta, 1987, 137, 53-55.	2.4	4
106	New derivatives of pyrimidine nucleosides: Synthesis, physicoâ€chemical properties and biological activity. Journal of Heterocyclic Chemistry, 1988, 25, 1039-1042.	2.6	4
107	Crystallization and preliminary X-ray diffraction studies of a protein disulfide oxidoreductase fromAeropyrum pernixK1. Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 335-336.	0.7	4
108	Functional and structural characterization of protein disulfide oxidoreductase from Thermus thermophilus HB27. Extremophiles, 2014, 18, 723-731.	2.3	4

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109	Synthesis and biological activity of five-coordinate platinum(II) complexes including organotin fragments. Anti-cancer Drug Design, 1995, 10, 43-9.	0.3	4
110	Bioprospecting of Extremophilic Microorganisms to Address Environmental Pollution. Journal of Visualized Experiments, 2021, , .	0.3	3
111	Corrigendum for Pedone E, Limauro D, and Bartolucci S. The Machinery for Oxidative Protein Folding in Thermophiles.Antioxid Redox Signal10:157â€“169, 2008. Antioxidants and Redox Signaling, 2010, 12, 171-179.	5.4	2
112	A peroxiredoxin of Thermus thermophilus HB27: Biochemical characterization of a new player in the antioxidant defence. International Journal of Biological Macromolecules, 2020, 153, 608-615.	7.5	2
113	Monovalent cations requirement of the fructose 1,6-bisphosphate-activated pyruvate kinase from E. coli. Italian Journal of Biochemistry, 1979, 28, 345-61.	0.3	2
114	The purification, cloning, and high level expression of a glutaredoxin-like protein from the hyperthermophilic archaeon Pyrococcus furiosus.. Journal of Biological Chemistry, 1997, 272, 20961.	3.4	1
115	A Technology Platform For the Sustainable Recovery and Advanced Use of Nanostructured Cellulose from Agri-Food Residues (PANACEA Project). , 2020, 69, .		0