Giuseppe Manco

List of Publications by Year
in descending order

105 papers	3,307 citations	147801 31 h-index	168389 53 g-index
108 all docs	108 docs citations	108 times ranked	2808 citing authors

#	Article	IF	Citations
1	The Latent Promiscuity of Newly Identified Microbial Lactonases Is Linked to a Recently Diverged Phosphotriesteraseâ€. Biochemistry, 2006, 45, 13677-13686.	2.5	258
2	Structural Basis for Natural Lactonase and Promiscuous Phosphotriesterase Activities. Journal of Molecular Biology, 2008, 379, 1017-1028.	4.2	159
3	The crystal structure of a hyper-thermophilic carboxylesterase from the archaeon Archaeoglobus fulgidus 1 1Edited by R. Huber. Journal of Molecular Biology, 2001, 314, 507-518.	4.2	148
4	A thermostable phosphotriesterase from the archaeon Sulfolobus solfataricus: cloning, overexpression and properties. Extremophiles, 2005, 9, 297-305.	2.3	146
5	Overexpression and properties of a new thermophilic and thermostable esterase from Bacillus acidocaldarius with sequence similarity to hormone-sensitive lipase subfamily. Biochemical Journal, 1998, 332, 203-212.	3.7	138
6	Cloning, Overexpression, and Properties of a New Thermophilic and Thermostable Esterase with Sequence Similarity to Hormone-Sensitive Lipase Subfamily from the Archaeon Archaeoglobus fulgidus. Archives of Biochemistry and Biophysics, 2000, 373, 182-192.	3.0	131
7	A snapshot of a transition state analogue of a novel thermophilic esterase belonging to the subfamily of mammalian hormone-sensitive lipase 1 1Edited by D. Rees. Journal of Molecular Biology, 2000, 303, 761-771.	4.2	128
8	Role of the N Terminus in Enzyme Activity, Stability and Specificity in Thermophilic Esterases Belonging to the HSL Family. Journal of Molecular Biology, 2005, 345, 501-512.	4.2	73
9	A Novel Aspartyl Proteinase from Apocrine Epithelia and Breast Tumors. Journal of Biological Chemistry, 2000, 275, 7935-7941.	3.4	69
10	A new phosphotriesterase from Sulfolobus acidocaldarius and its comparison with the homologue from Sulfolobus solfataricus. Biochimie, 2007, 89, 625-636.	2.6	65
11	Pyruvate dehydrogenase complex and lactate dehydrogenase are targets for therapy of acute liver failure. Journal of Hepatology, 2018, 69, 325-335.	3.7	65
12	Structure-function analysis of the EGF-CFC family member Cripto identifies residues essential for nodal signalling. Development (Cambridge), 2001, 128, 4501-4510.	2.5	63
13	Cell surface display of organophosphorus hydrolase for sensitive spectrophotometric detection of p-nitrophenol substituted organophosphates. Enzyme and Microbial Technology, 2014, 55, 107-112.	3.2	62
14	Denaturing action of urea and guanidine hydrochloride towards two thermophilic esterases. Biochemical Journal, 2002, 367, 857-863.	3.7	61
15	Structural determinants of the high thermal stability of SsoPox from the hyperthermophilic archaeon Sulfolobus solfataricus. Extremophiles, 2009, 13, 461-470.	2.3	60
16	Phenylbutyrate Therapy for Pyruvate Dehydrogenase Complex Deficiency and Lactic Acidosis. Science Translational Medicine, 2013, 5, 175ra31.	12.4	59
17	Enzymatic detoxification: a sustainable means of degrading toxic organophosphate pesticides and chemical warfare nerve agents. Journal of Chemical Technology and Biotechnology, 2018, 93, 2064-2082.	3.2	53
18	Stability and activity of a thermostable malic enzyme in denaturants and water-miscible organic solvents. FEBS Journal, 1989, 183, 25-30.	0.2	49

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19	Substrate specificity and kinetic properties of enzymes belonging to the hormone-sensitive lipase family: Comparison with non-lipolytic and lipolytic carboxylesterases. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2005, 1738, 29-36.	2.4	46
20	A Substrate-induced Switch in the Reaction Mechanism of a Thermophilic Esterase. Journal of Biological Chemistry, 2004, 279, 6815-6823.	3.4	45
21	Use of an Inhibitor To Identify Members of the Hormone-Sensitive Lipase Family. Biochemistry, 2006, 45, 14183-14191.	2.5	45
22	Differential inhibition of PDKs by phenylbutyrate and enhancement of pyruvate dehydrogenase complex activity by combination with dichloroacetate. Journal of Inherited Metabolic Disease, 2015, 38, 895-904.	3.6	45
23	Fluorescence Spectroscopy Approaches for the Development of a Real-Time Organophosphate Detection System Using an Enzymatic Sensor. Sensors, 2015, 15, 3932-3951.	3.8	43
24	Improving the promiscuous nerve agent hydrolase activity of a thermostable archaeal lactonase. Bioresource Technology, 2010, 101, 9204-9212.	9.6	42
25	Analysis of Thermal Adaptation in the HSL Enzyme Family. Journal of Molecular Biology, 2004, 335, 357-369.	4.2	41
26	Thermostable Esterase 2 from <i>Alicyclobacillus acidocaldarius</i> as Biosensor for the Detection of Organophosphate Pesticides. Analytical Chemistry, 2011, 83, 1530-1536.	6.5	40
27	An efficient thermostable organophosphate hydrolase and its application in pesticide decontamination. Biotechnology and Bioengineering, 2016, 113, 724-734.	3.3	39
28	Residues at the Active Site of the Esterase 2 fromAlicyclobacillus acidocaldarius Involved in Substrate Specificity and Catalytic Activity at High Temperature. Journal of Biological Chemistry, 2001, 276, 37482-37490.	3.4	38
29	Human Paraoxonase-2 (PON2): Protein Functions and Modulation. Antioxidants, 2021, 10, 256.	5.1	37
30	Biocatalytic membrane reactor development for organophosphates degradation. Journal of Hazardous Materials, 2019, 365, 789-795.	12.4	36
31	Regulation of nitrogen metabolism is altered in a glnB mutant strain of Rhizobium leguminosarum. Molecular Microbiology, 1994, 11, 685-693.	2.5	35
32	Temperature- and Denaturant-Induced Unfolding of Two Thermophilic Esterases. Biochemistry, 2002, 41, 1364-1371.	2.5	34
33	Activation of the Rhizobium leguminosarum glnII gene by NtrC is dependent on upstream DNA sequences. Molecular Genetics and Genomics, 1992, 234, 337-345.	2.4	33
34	Purification and characterization of a thermostable carboxylesterase from the thermoacidophilic eubacterium Bacillus acidocaldarius. FEBS Journal, 1994, 221, 965-972.	0.2	32
35	Homology modeling and activeâ€site residues probing of the thermophilic <i>Alicyclobacillus acidocaldarius</i> esterase 2. Protein Science, 1999, 8, 1789-1796.	7.6	31
36	Functional and structural features of the oxyanion hole in a thermophilic esterase from <i>Alicyclobacillus acidocaldarius</i>. Proteins: Structure, Function and Bioinformatics, 2008, 71, 1721-1731.	2.6	31

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37	Alicyclobacillus acidocaldarius Thermophilic Esterase EST2's Activity in Milk and Cheese Models. Applied and Environmental Microbiology, 2006, 72, 3191-3197.	3.1	30
38	Uridylylation of the PIIprotein inRhizobium leguminosarum. FEBS Letters, 1993, 330, 95-98.	2.8	27
39	The conserved N-terminal helix of acylpeptide hydrolase from archaeon Aeropyrum pernix K1 is important for its hyperthermophilic activity. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2008, 1784, 1176-1183.	2.3	27
40	Polymeric biocatalytic membranes with immobilized thermostable phosphotriesterase. Journal of Membrane Science, 2016, 516, 144-151.	8.2	27
41	The esterase from the thermophilic eubacteriumBacillus acidocaldarius: Structural-functional relationship and comparison with the esterase from the hyperthermophilic archaeonArchaeoglobus fulgidus. Proteins: Structure, Function and Bioinformatics, 2000, 40, 473-481.	2.6	26
42	The Crystal Structure of an EST2 Mutant Unveils Structural Insights on the H Group of the Carboxylesterase/Lipase Family. Journal of Molecular Biology, 2004, 343, 137-146.	4.2	26
43	Use of Esterase Activities for the Detection of Chemical Neurotoxic Agents. Protein and Peptide Letters, 2009, 16, 1225-1234.	0.9	24
44	Modification of the enantioselectivity of two homologous thermophilic carboxylesterases from Alicyclobacillus acidocaldarius and Archaeoglobus fulgidus by random mutagenesis and screening. Extremophiles, 2002, 6, 325-331.	2.3	23
45	High yield production and purification of two recombinant thermostable phosphotriesterase-like lactonases from Sulfolobus acidocaldarius and Sulfolobus solfataricus useful as bioremediation tools and bioscavengers. BMC Biotechnology, 2018, 18, 18.	3.3	22
46	A major secretory protein from rat seminal vesicle binds ejaculated spermatozoa. Gamete Research, 1988, 21, 71-84.	1.7	21
47	Direct detection of organophosphate compounds in water by a fluorescence-based biosensing device. Sensors and Actuators B: Chemical, 2018, 255, 3257-3266.	7.8	21
48	The thermophilic esterase fromArchaeoglobus fulgidus: Structure and conformational dynamics at high temperature. , 2000, 38, 351-360.		19
49	Crystallization and preliminary X-ray diffraction analysis of the hyperthermophilic<i>Sulfolobus solfataricus</i>phosphotriesterase. Acta Crystallographica Section F: Structural Biology Communications, 2007, 63, 553-555.	0.7	19
50	Domain Organization and DNA-Induced Conformational Changes of an Archaeal Family B DNA Polymerase. Biochemistry, 1996, 35, 9158-9166.	2.5	18
51	Irreversible inhibition of the thermophilic esterase EST2 from Alicyclobacillus acidocaldarius. Extremophiles, 2008, 12, 719-728.	2.3	18
52	Comprehensive analysis of surface charged residues involved in thermal stability in Alicyclobacillus acidocaldarius esterase 2. Protein Engineering, Design and Selection, 2013, 26, 47-58.	2.1	18
53	Modular organization of a Cdc6-like protein from the crenarchaeon Sulfolobus solfataricus. Biochemical Journal, 2004, 381, 645-653.	3.7	17
54	Evolution in the Amidohydrolase Superfamily: Substrate-Assisted Gain of Function in the E183K Mutant of a Phosphotriesterase-like Metal-Carboxylesterase. Biochemistry, 2009, 48, 5602-5612.	2.5	17

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55	Hyperthermophilic phosphotriesterases/lactonases for the environment and human health. Environmental Technology (United Kingdom), 2010, 31, 1115-1127.	2.2	17
56	Role of the N-terminal region for the conformational stability of esterase 2 from Alicyclobacillus acidocaldarius. Biophysical Chemistry, 2007, 127, 113-122.	2.8	16
57	Glycation in Demetalated Superoxide Dismutase 1 Prevents Amyloid Aggregation and Produces Cytotoxic Ages Adducts. Frontiers in Molecular Biosciences, 2016, 3, 55.	3.5	16
58	Phosphotriesterase-Magnetic Nanoparticle Bioconjugates with Improved Enzyme Activity in a Biocatalytic Membrane Reactor. Bioconjugate Chemistry, 2018, 29, 2001-2008.	3.6	16
59	An Engineered Version of Human PON2 Opens the Way to Understand the Role of Its Post-Translational Modifications in Modulating Catalytic Activity. PLoS ONE, 2015, 10, e0144579.	2.5	16
60	Inhibition of glutamine synthetase II expression by the product of the gstI gene. Molecular Microbiology, 2000, 37, 443-452.	2.5	15
61	EBP1 and DRBP76/NF90 binding proteins are included in the major histocompatibility complex class II RNA operon. Nucleic Acids Research, 2011, 39, 7263-7275.	14.5	15
62	Domain organization and biochemical features of Sulfolobus solfataricus DNA polymerase. Extremophiles, 1998, 2, 171-177.	2.3	14
63	Crystallization and preliminary X-ray diffraction studies of the carboxylesterase EST2 from Alicyclobacillus acidocaldarius. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 1348-1349.	2.5	14
64	The Aes Protein and the Monomeric Î±-Galactosidase fromEscherichia coli Form a Non-covalent Complex. Journal of Biological Chemistry, 2002, 277, 48241-48247.	3.4	14
65	Mn2+ modulates the kinetic properties of an archaeal member of the PLL family. Chemico-Biological Interactions, 2013, 203, 251-256.	4.0	13
66	Innovative Biocatalysts as Tools to Detect and Inactivate Nerve Agents. Scientific Reports, 2018, 8, 13773.	3.3	13
67	Active Site Loop Conformation Regulates Promiscuous Activity in a Lactonase from Geobacillus kaustophilus HTA426. PLoS ONE, 2015, 10, e0115130.	2.5	13
68	Determination of Picomolar Concentrations of Paraoxon in Human Urine by Fluorescence-Based Enzymatic Assay. Sensors, 2019, 19, 4852.	3.8	12
69	WTAP and BIRC3 are involved in the posttranscriptional mechanisms that impact on the expression and activity of the human lactonase PON2. Cell Death and Disease, 2020, 11, 324.	6.3	12
70	Structural and Functional Characterization of New SsoPox Variant Points to the Dimer Interface as a Driver for the Increase in Promiscuous Paraoxonase Activity. International Journal of Molecular Sciences, 2020, 21, 1683.	4.1	12
71	Redox stress proteins are involved in adaptation response of the hyperthermoacidophilic archaeon Sulfolobus solfataricus to nickel challenge. Microbial Cell Factories, 2007, 6, 25.	4.0	11
72	Structural and Kinetic Overview of the Carboxylesterase EST2 from Alicyclobacillus acidocaldarius: A Comparison with the Other Members ofthe HSL Family. Protein and Peptide Letters, 2009, 16, 1189-1200.	0.9	11

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73	Non-lipolytic and lipolytic sequence-related carboxylesterases: A comparative study of the structureâ€“function relationships of rabbit liver esterase 1 and bovine pancreatic bile-salt-activated lipase. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2010, 1801, 1195-1204.	2.4	11
74	Enzyme Promiscuity in the Hormone-sensitive Lipase Family of Proteins. Protein and Peptide Letters, 2012, 19, 144-154.	0.9	11
75	Effect of trifluoroethanol on the conformational stability of a hyperthermophilic esterase: a CD study. Biophysical Chemistry, 2003, 104, 407-415.	2.8	10
76	Effect of low organic solvents concentration on the stability and catalytic activity of HSL-like carboxylesterases: Analysis from psychrophiles to (hyper)thermophiles. Journal of Molecular Catalysis B: Enzymatic, 2012, 82, 46-52.	1.8	10
77	Highly Sensitive Detection of Chemically Modified Thio-Organophosphates by an Enzymatic Biosensing Device: An Automated Robotic Approach. Sensors, 2020, 20, 1365.	3.8	10
78	Denaturant-Induced Unfolding of the Acetyl-Esterase from Escherichia coli. Biochemistry, 2004, 43, 14637-14643.	2.5	9
79	Five-Substrate Cocktail as a Sensor Array for Measuring Enzyme Activity Fingerprints of Lipases and Esterases. Analytical Chemistry, 2011, 83, 1437-1442.	6.5	9
80	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
81	Enzymes with Phosphotriesterase and Lactonase Activities in Archaea. Current Chemical Biology, 2008, 2, 237-248.	0.5	8
82	Boosted large-scale production and purification of a thermostable archaeal phosphotriesterase-like lactonase for organophosphate decontamination. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 363-375.	3.0	8
83	ADP-Ribosylation Post-Translational Modification: An Overview with a Focus on RNA Biology and New Pharmacological Perspectives. Biomolecules, 2022, 12, 443.	4.0	8
84	Enzymes with Phosphotriesterase and Lactonase Activities in Archaea. Current Chemical Biology, 2008, 2, 237-248.	0.5	7
85	Mutational analysis of GstI protein, a glutamine synthetase translational inhibitor of Rhizobium leguminosarum. FEBS Letters, 2004, 558, 45-51.	2.8	6
86	<i>SSo</i>NÎ” and<i>Sso</i>NÎ”long: two thermostable esterases from the same ORF in the archaeon<i>Sulfolobus solfataricus</i>?. Archaea, 2006, 2, 109-115.	2.3	6
87	A Further Biochemical Characterization of DrPLL the Thermophilic Lactonase from Deinococcus radiodurans. Protein and Peptide Letters, 2013, 20, 36-44.	0.9	6
88	Comparison of the DING protein from the archaeon Sulfolobus solfataricus with human phosphate-binding protein and Pseudomonas fluorescence DING counterparts. Extremophiles, 2018, 22, 177-188.	2.3	6
89	A 3D printable adapter for solid-state fluorescence measurements: the case of an immobilized enzymatic bioreceptor for organophosphate pesticides detection. Analytical and Bioanalytical Chemistry, 2022, 414, 1999-2008.	3.7	6
90	Biochemical and Thermostability Features of Acetyl Esterase Aes from Escherichia coli. Protein and Peptide Letters, 2007, 14, 165-169.	0.9	5

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91	Thermophilic esterases and the amino acid â€œtraffic ruleâ€•in the hormone sensitive lipase subfamily. Progress in Biotechnology, 1998, 15, 325-330.	0.2	4
92	Temperature-induced denaturation of Aes acetyl-esterase from Escherichia coli. Thermochimica Acta, 2006, 441, 144-149.	2.7	4
93	Effect of Mutations on mRNA and Globin Stability: The Cases of Hb Bernalda/Groene Hart and Hb Southern Italy. Genes, 2020, 11, 870.	2.4	4
94	A FRET Approach to Detect Paraoxon among Organophosphate Pesticides Using a Fluorescent Biosensor. Sensors, 2022, 22, 561.	3.8	4
95	Engineering of Extremophilic Phosphotriesterase-Like Lactonases for Biotechnological Applications. Grand Challenges in Biology and Biotechnology, 2016, , 471-503.	2.4	3
96	Crystallization and preliminary X-ray diffraction studies of Aes acetyl-esterase fromEscherichia coli. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 1846-1848.	2.5	2
97	Enlarging the substrate portfolio of the thermophilic esterase EST2 from Alicyclobacillus acidocaldarius. Extremophiles, 2015, 19, 1001-1011.	2.3	2
98	DING Proteins Extend to the Extremophilic World. International Journal of Molecular Sciences, 2021, 22, 2035.	4.1	2
99	Selymatra: A web application for proteinâ€profiling analysis of mass spectra. Biotechnology and Applied Biochemistry, 2021, , .	3.1	2
100	A Proteomic Approach to Study Escherichia coli. Acetyl Esterase Interactors Unveil a Sequence Motif Involved in Protein-Protein Interaction. Protein and Peptide Letters, 2008, 15, 333-340.	0.9	1
101	A Further Biochemical Characterization of DrPLL the Thermophilic Lactonase from Deinococcus radiodurans. Protein and Peptide Letters, 2012, 20, 36-44.	0.9	1
102	New Insight in Human Lactonase PON2. Biomedical Journal of Scientific & Technical Research, 2017, 1, .	0.1	1
103	A further biochemical characterization of DrPLL the thermophilic lactonase from Deinococcus radiodurans. Protein and Peptide Letters, 2013, 20, 36-44.	0.9	1
104	Editorial [Hot Topic: Carboxylesterases: A World with Still Words to Say (Guest Editor: Giuseppe) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	0.9	0
105	Symmetry of Post-Translational Modifications in a Human Enzyme. Symmetry, 2022, 14, 212.	2.2	0