

# Vincenzo Carginale

## List of Publications by Year in descending order

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91  
papers

3,108  
citations

109264

35  
h-index

168321

53  
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92  
all docs

92  
docs citations

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times ranked

2040  
citing authors

#	ARTICLE	IF	CITATIONS
1	Biomimetic CO <sub>2</sub> capture using a highly thermostable bacterial $\hat{\Gamma}$ -carbonic anhydrase immobilized on a polyurethane foam. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2014, 29, 146-150.	2.5	131
2	An $\hat{\Gamma}$ -carbonic anhydrase from the thermophilic bacterium <i>Sulphurihydrogenibium azorense</i> is the fastest enzyme known for the CO <sub>2</sub> hydration reaction. <i>Bioorganic and Medicinal Chemistry</i> , 2013, 21, 1465-1469.	1.4	121
3	Biochemical properties of a novel and highly thermostable bacterial $\hat{\Gamma}$ -carbonic anhydrase from <i>Sulphurihydrogenibium yellowstonense</i> YO3AOP1. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2012, 27, 892-897.	2.5	111
4	DNA Cloning, Characterization, and Inhibition Studies of an $\hat{\Gamma}$ -Carbonic Anhydrase from the Pathogenic Bacterium <i>Vibrio cholerae</i> . <i>Journal of Medicinal Chemistry</i> , 2012, 55, 10742-10748.	2.9	103
5	X-ray structure of the first 'extremo- $\hat{\Gamma}$ -carbonic anhydrase', a dimeric enzyme from the thermophilic bacterium <i>Sulphurihydrogenibium yellowstonense</i> YO3AOP1. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2013, 69, 1150-1159.	2.5	100
6	Toxicity, Accumulation, and Removal of Heavy Metals by Three Aquatic Macrophytes. <i>International Journal of Phytoremediation</i> , 2012, 14, 374-387.	1.7	94
7	Biochemical properties of a new $\hat{\Gamma}$ -carbonic anhydrase from the human pathogenic bacterium, <i>Vibrio cholerae</i> . <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2014, 29, 23-27.	2.5	90
8	Associations of selenium status with cardiometabolic risk factors: An 8-year follow-up analysis of the Olivetti Heart Study. <i>Atherosclerosis</i> , 2011, 217, 274-278.	0.4	81
9	Anion inhibition studies of an $\hat{\Gamma}$ -carbonic anhydrase from the thermophilic bacterium <i>Sulphurihydrogenibium yellowstonense</i> YO3AOP1. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 5630-5634.	1.0	77
10	The first activation study of a bacterial carbonic anhydrase (CA). The thermostable $\hat{\Gamma}$ -CA from <i>Sulphurihydrogenibium yellowstonense</i> YO3AOP1 is highly activated by amino acids and amines. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 6324-6327.	1.0	73
11	Crystal structure of the most catalytically effective carbonic anhydrase enzyme known, SazCA from the thermophilic bacterium <i>Sulphurihydrogenibium azorense</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 2002-2006.	1.0	72
12	Anion inhibition studies of the fastest carbonic anhydrase (CA) known, the extremo-CA from the bacterium <i>Sulphurihydrogenibium azorense</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 7142-7145.	1.0	69
13	The extremo- $\hat{\Gamma}$ -carbonic anhydrase from the thermophilic bacterium <i>Sulphurihydrogenibium azorense</i> is highly inhibited by sulfonamides. <i>Bioorganic and Medicinal Chemistry</i> , 2013, 21, 4521-4525.	1.4	68
14	Cadmium-induced differential accumulation of metallothionein isoforms in the Antarctic icefish, which exhibits no basal metallothionein protein but high endogenous mRNA levels. <i>Biochemical Journal</i> , 1998, 332, 475-481.	1.7	64
15	Biochemical characterization of the $\hat{\Gamma}$ -carbonic anhydrase from the oral pathogen <i>Porphyromonas gingivalis</i> , PgiCA. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2014, 29, 532-537.	2.5	64
16	Accumulation, localisation, and toxic effects of cadmium in the liverwort <i>Lunularia cruciata</i> . <i>Protoplasma</i> , 2004, 223, 53-61.	1.0	63
17	A highly catalytically active $\hat{\Gamma}$ -carbonic anhydrase from the pathogenic anaerobe <i>Porphyromonas gingivalis</i> and its inhibition profile with anions and small molecules. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2013, 23, 4067-4071.	1.0	62
18	Sulfonamide inhibition studies of the $\hat{\Gamma}$ -carbonic anhydrase from the pathogenic bacterium <i>Vibrio cholerae</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 1115-1120.	1.4	57

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19	The extremo- $\hat{1}$ -carbonic anhydrase (CA) from <i>Sulfurihydrogenibium azorense</i> , the fastest CA known, is highly activated by amino acids and amines. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2013, 23, 1087-1090.	1.0	55
20	The alpha-carbonic anhydrase from the thermophilic bacterium <i>Sulfurihydrogenibium yellowstonense</i> YO3AOP1 is highly susceptible to inhibition by sulfonamides. <i>Bioorganic and Medicinal Chemistry</i> , 2013, 21, 1534-1538.	1.4	54
21	Anion inhibition studies of the $\hat{1}$ -carbonic anhydrase from the pathogenic bacterium <i>Vibrio cholerae</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2013, 23, 1636-1638.	1.0	54
22	Solution Structure of MT <sub>nc</sub> , a Novel Metallothionein from the Antarctic Fish <i>Notothenia coriiceps</i> . <i>Structure</i> , 2003, 11, 435-443.	1.6	52
23	Identification of genes expressed in response to phytoplasma infection in leaves of <i>Prunus armeniaca</i> by messenger RNA differential display. <i>Gene</i> , 2004, 332, 29-34.	1.0	51
24	Comparison of the sulfonamide inhibition profiles of the $\hat{1}$ -, $\hat{2}$ - and $\hat{3}$ -carbonic anhydrases from the pathogenic bacterium <i>Vibrio cholerae</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 1941-1946.	1.0	50
25	Anion inhibition profiles of $\hat{1}$ -, $\hat{2}$ - and $\hat{3}$ -carbonic anhydrases from the pathogenic bacterium <i>Vibrio cholerae</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 3413-3417.	1.4	49
26	Difference in hepatic metallothionein content in Antarctic red-blooded and haemoglobinless fish: undetectable metallothionein levels in haemoglobinless fish is accompanied by accumulation of untranslated metallothionein mRNA. <i>Biochemical Journal</i> , 1997, 322, 207-211.	1.7	48
27	Effect of a recombinant manganese superoxide dismutase on prevention of contrast-induced acute kidney injury. <i>Clinical and Experimental Nephrology</i> , 2013, 18, 424-31.	0.7	46
28	Metallothioneins in antarctic fish: evidence for independent duplication and gene conversion. <i>Molecular Biology and Evolution</i> , 1999, 16, 885-897.	3.5	45
29	Cloning, characterization and anion inhibition studies of a $\hat{3}$ -carbonic anhydrase from the Antarctic bacterium <i>Colwellia psychrerythraea</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 835-840.	1.4	44
30	Purification and characterization of pepsins A1 and A2 from the Antarctic rock cod <i>Trematomus bernacchii</i> . <i>FEBS Journal</i> , 2007, 274, 6152-6166.	2.2	42
31	Carbonic Anhydrases: New Perspectives on Protein Functional Role and Inhibition in <i>Helicobacter pylori</i> . <i>Frontiers in Microbiology</i> , 2021, 12, 629163.	1.5	42
32	Anion inhibition studies of the $\hat{2}$ -carbonic anhydrase from the pathogenic bacterium <i>Vibrio cholerae</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 1406-1410.	1.0	39
33	Structural and functional analysis of metal regulatory elements in the promoter region of genes encoding metallothionein isoforms in the Antarctic fish <i>Chionodraco hamatus</i> (icefish). <i>Gene</i> , 2001, 274, 199-208.	1.0	38
34	Adaptive evolution and functional divergence of pepsin gene family. <i>Gene</i> , 2004, 333, 81-90.	1.0	38
35	Identification and characterization of the $\hat{1}$ -CA in the outer membrane vesicles produced by <i>Helicobacter pylori</i> . <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2019, 34, 189-195.	2.5	38
36	Cloning, expression, purification and sulfonamide inhibition profile of the complete domain of the $\hat{1}$ -carbonic anhydrase from <i>Plasmodium falciparum</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 4184-4190.	1.0	37

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37	Differential display analysis of gene expression in Etrog citron leaves infected by Citrus viroid III. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 2007, 1769, 228-235.	2.4	36
38	Identification of cadmium-sensitive genes in the Antarctic fish <i>Chionodraco hamatus</i> by messenger RNA differential display. <i>Gene</i> , 2002, 299, 117-124.	1.0	35
39	Anion inhibition profiles of the complete domain of the $\hat{\Gamma}$ -carbonic anhydrase from <i>Plasmodium falciparum</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 4410-4414.	1.4	34
40	Cathepsin D from the liver of the Antarctic icefish <i>Chionodraco hamatus</i> exhibits unusual activity and stability at high temperatures. <i>BBA - Proteins and Proteomics</i> , 1999, 1431, 64-73.	2.1	33
41	Gene amplification and cold adaptation of pepsin in Antarctic fish. A possible strategy for food digestion at low temperature. <i>Gene</i> , 2004, 336, 195-205.	1.0	33
42	Sulfonamide inhibition studies of the $\hat{\Gamma}$ -carbonic anhydrase from the Antarctic cyanobacterium <i>Nostoc commune</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2015, 23, 1728-1734.	1.4	33
43	A new procedure for the cloning, expression and purification of the $\hat{\Gamma}$ -carbonic anhydrase from the pathogenic yeast <i>Malassezia globosa</i> , an anti-dandruff drug target. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2016, 31, 1156-1161.	2.5	30
44	Comparison of the Sulfonamide Inhibition Profiles of the $\hat{\Gamma}$ - and $\hat{\Gamma}$ -Carbonic Anhydrases from the Pathogenic Bacterium <i>Burkholderia pseudomallei</i> . <i>Molecules</i> , 2017, 22, 421.	1.7	29
45	Sulfonamide inhibition studies of the $\hat{\Gamma}$ -carbonic anhydrase from the Antarctic bacterium <i>Pseudoalteromonas haloplanktis</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 3550-3555.	1.0	28
46	Stability and conformational dynamics of metallothioneins from the antarctic fish <i>Notothenia coriiceps</i> and mouse. <i>Proteins: Structure, Function and Bioinformatics</i> , 2002, 46, 259-267.	1.5	27
47	Cloning, characterization and anion inhibition studies of a new $\hat{\Gamma}$ -carbonic anhydrase from the Antarctic bacterium <i>Pseudoalteromonas haloplanktis</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2015, 23, 4405-4409.	1.4	26
48	Molecular cloning and sequence determination of a novel aspartic proteinase from Antarctic fish. <i>BBA - Proteins and Proteomics</i> , 1998, 1387, 457-461.	2.1	24
49	Structural characterization and thermal stability of <i>Notothenia coriiceps</i> metallothionein. <i>Biochemical Journal</i> , 2001, 354, 291-299.	1.7	24
50	Phylogenetic Divergence of Fish and Mammalian Metallothionein: Relationships with Structural Diversification and Organismal Temperature. <i>Journal of Molecular Evolution</i> , 2003, 57, S250-S257.	0.8	24
51	Gene expression profiling of phytoplasma-infected Madagascar periwinkle leaves using differential display. <i>Molecular Biology Reports</i> , 2011, 38, 2993-3000.	1.0	23
52	Structural characterization and thermal stability of <i>Notothenia coriiceps</i> metallothionein. <i>Biochemical Journal</i> , 2001, 354, 291.	1.7	19
53	Effect of cadmium on gene expression in the liverwort <i>Lunularia cruciata</i> . <i>Gene</i> , 2005, 356, 153-159.	1.0	18
54	Recombinant thermoactive phosphoenolpyruvate carboxylase (PEPC) from <i>Thermosynechococcus elongatus</i> and its coupling with mesophilic/thermophilic bacterial carbonic anhydrases (CAs) for the conversion of CO <sub>2</sub> to oxaloacetate. <i>Bioorganic and Medicinal Chemistry</i> , 2016, 24, 220-225.	1.4	18

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55	The Effect of Substituted Benzene-Sulfonamides and Clinically Licensed Drugs on the Catalytic Activity of CynT2, a Carbonic Anhydrase Crucial for <i>Escherichia coli</i> Life Cycle. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4175.	1.8	18
56	Tissue-specific regulation of metallothionein and metallothionein mRNA accumulation in the Antarctic notothenioid, <i>Notothenia coriiceps</i> . <i>Polar Biology</i> , 2000, 23, 17-23.	0.5	17
57	<i>Phaeodactylum tricornutum</i> as a model organism for testing the membrane penetrability of sulphonamide carbonic anhydrase inhibitors. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2019, 34, 510-518.	2.5	17
58	PCR amplification and cloning of metallothionein complementary DNAs in temperate and Antarctic sea urchin characterized by a large difference in egg metallothionein content. <i>Cellular and Molecular Life Sciences</i> , 1997, 53, 472-477.	2.4	16
59	Aspartic proteinases in Antarctic fish. <i>Marine Genomics</i> , 2009, 2, 1-10.	0.4	16
60	Structural and functional studies of vertebrate metallothioneins: cross-talk between domains in the absence of physical contact. <i>Biochemical Journal</i> , 2005, 391, 95-103.	1.7	14
61	An AGT-based protein-tag system for the labelling and surface immobilization of enzymes on <i>E. coli</i> outer membrane. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2019, 34, 490-499.	2.5	14
62	Cloning, characterization and anion inhibition studies of a $\hat{1}^3$ -carbonic anhydrase from the Antarctic cyanobacterium <i>Nostoc commune</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 4970-4975.	1.0	13
63	A failed tentative to design a super carbonic anhydrase having the biochemical properties of the most thermostable CA ( <i>SspCA</i> ) and the fastest ( <i>SazCA</i> ) enzymes. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2015, 30, 989-994.	2.5	13
64	Sulfonamide inhibition studies of the $\hat{1}^3$ -carbonic anhydrase from the Antarctic bacterium <i>Colwellia psycherythraea</i> . <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 1253-1259.	1.0	13
65	Developmental changes of metallothionein content and synthesis in sea urchin embryos. <i>Cell Biology International Reports</i> , 1991, 15, 305-317.	0.7	12
66	Adenylate cyclase from sea urchin eggs is positively and negatively regulated by D-1 and D-2 dopamine receptors. <i>Experimental Cell Research</i> , 1992, 203, 491-494.	1.2	12
67	Cloning, expression and purification of the $\hat{1}^{\pm}$ -carbonic anhydrase from the mantle of the Mediterranean mussel, <i>Mytilus galloprovincialis</i> . <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2017, 32, 1029-1035.	2.5	11
68	Physiological and ultrastructural effects of acute ozone fumigation in the lichen <i>Xanthoria parietina</i> : the role of parietin and hydration state. <i>Environmental Science and Pollution Research</i> , 2018, 25, 8104-8112.	2.7	11
69	Use of an immobilised thermostable $\hat{1}^{\pm}$ -CA ( <i>SspCA</i> ) for enhancing the metabolic efficiency of the freshwater green microalga <i>Chlorella sorokiniana</i> . <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2020, 35, 913-920.	2.5	11
70	Thermostability enhancement of the $\hat{1}^{\pm}$ -carbonic anhydrase from <i>Sulfurihydrogenibium yellowstonense</i> by using the anchoring-and-self-labelling-protein-tag system (ASL <sup>sup</sup> tag <sup>sup</sup> ). <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2019, 34, 946-954.	2.5	10
71	Changes in dopamine uptake and developmental effects of dopamine receptor inactivation in the sea urchin. <i>Molecular Reproduction and Development</i> , 1995, 40, 379-385.	1.0	9
72	Comparison of the anion inhibition profiles of the $\hat{1}^2$ - and $\hat{1}^3$ -carbonic anhydrases from the pathogenic bacterium <i>Burkholderia pseudomallei</i> . <i>Bioorganic and Medicinal Chemistry</i> , 2017, 25, 2010-2015.	1.4	8

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73	Heterologous expression and biochemical characterisation of the recombinant $\hat{1}^2$ -carbonic anhydrase (MpaCA) from the warm-blooded vertebrate pathogen <i>malassezia pachydermatis</i> . Journal of Enzyme Inhibition and Medicinal Chemistry, 2022, 37, 62-68.	2.5	8
74	Expression and characterization of a recombinant psychrophilic $\hat{1}^3$ -carbonic anhydrase (NcoCA) identified in the genome of the Antarctic cyanobacteria belonging to the genus Nostoc. Journal of Enzyme Inhibition and Medicinal Chemistry, 2016, 31, 810-817.	2.5	7
75	Effect of amino acids and amines on the activity of the recombinant $\hat{1}^1$ -carbonic anhydrase from the Gram-negative bacterium <i>Burkholderia territorii</i> . Journal of Enzyme Inhibition and Medicinal Chemistry, 2021, 36, 1000-1006.	2.5	7
76	Phospholipase A2 and protein kinase C enzymatic activities and their interactions in <i>Hydra vulgaris</i> . Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology, 1995, 111, 211-219.	0.7	5
77	A Molecular Carrier to Transport and Deliver Cisplatin into Endometrial Cancer Cells. Chemical Biology and Drug Design, 2012, 80, 9-16.	1.5	5
78	A dopamine- and octopamine-sensitive adenylate cyclase in the nervous system of <i>Octopus vulgaris</i> . Comparative Biochemistry and Physiology Part B: Comparative Biochemistry, 1991, 100, 805-808.	0.2	4
79	Metal detoxification and homeostasis in Antarctic Notothenioids. A comparative survey on evolution, expression and functional properties of fish and mammal metallothioneins. Reviews in Environmental Science and Biotechnology, 2006, 5, 253-267.	3.9	4
80	Accumulation of untranslated metallothionein mRNA in antarctic hemoglobinless fish (icefish). , 1999, , 167-172.		3
81	Inhibitory Effects of Sulfonamide Derivatives on the $\hat{1}^2$ -Carbonic Anhydrase (MpaCA) from <i>Malassezia pachydermatis</i> , a Commensal, Pathogenic Fungus Present in Domestic Animals. International Journal of Molecular Sciences, 2021, 22, 12601.	1.8	3
82	Guanine nucleotide binding proteins activate adenylate cyclase from sea urchin sperm. Comparative Biochemistry and Physiology Part B: Comparative Biochemistry, 1990, 97, 339-342.	0.2	2
83	Metallothionein in Antarctic Fish. , 1998, , 151-161.		2
84	The sea urchin egg as a model for molecular pharmacology studies on dopaminergic stimulation of the adenylate cyclase. Pharmacological Research Communications, 1988, 20, 290.	0.2	1
85	Metallothionein in Antarctic notothenioids: Genetic polymorphism and differential gene expression. Italian Journal of Zoology, 2000, 67, 13-20.	0.6	1
86	Interaction of 5HT antagonists with D-2 receptors. Pharmacological Research, 1990, 22, 83.	3.1	0
87	Interaction of metergoline with D-2 dopamine receptors*1. Pharmacological Research, 1992, 26, 188.	3.1	0
88	Receptor-mediated inhibition of octopamine-stimulated adenylate cyclase in the optic lobe of <i>Octopus vulgaris</i> . Comparative Biochemistry and Physiology C, Comparative Pharmacology and Toxicology, 1993, 106, 555-559.	0.5	0
89	Aspartic proteinases from Antarctic fish. A biochemical and molecular approach. Italian Journal of Zoology, 2000, 67, 21-26.	0.6	0
90	Nothepsin. , 2013, , 63-69.		0

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91	Metal detoxification and homeostasis in Antarctic Notothenioids. A comparative survey on evolution, expression and functional properties of fish and mammal metallothioneins. , 2006, , 369-383.		0