Anna Di Fiore

List of Publications by Year
in descending order

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62	4,518	136885 32	138417 58
papers	citations	h-index	g-index

63	63	63	3304
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multiple Binding Modes of Inhibitors to Carbonic Anhydrases: How to Design Specific Drugs Targeting 15 Different Isoforms?. Chemical Reviews, 2012, 112, 4421-4468.	23.0	1,056
2	Crystal structure of the catalytic domain of the tumor-associated human carbonic anhydrase IX. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16233-16238.	3.3	451
3	Biochemical Characterization of CA IX, One of the Most Active Carbonic Anhydrase Isozymes. Journal of Biological Chemistry, 2008, 283, 27799-27809.	1.6	258
4	Inhibition of carbonic anhydrase IX targets primary tumors, metastases, and cancer stem cells: Three for the price of one. Medicinal Research Reviews, 2018, 38, 1799-1836.	5.0	207
5	Carbonic anhydrase inhibitors. Zonisamide is an effective inhibitor of the cytosolic isozyme II and mitochondrial isozyme V: solution and X-ray crystallographic studies. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 2315-2320.	1.0	176
6	Carbonic anhydrase inhibitors as emerging drugs for the treatment of obesity. Expert Opinion on Emerging Drugs, 2008, 13, 383-392.	1.0	165
7	Carbonic Anhydrase Inhibitors:Â Stacking with Phe131 Determines Active Site Binding Region of Inhibitors As Exemplified by the X-ray Crystal Structure of a Membrane-Impermeant Antitumor Sulfonamide Complexed with Isozyme II. Journal of Medicinal Chemistry, 2005, 48, 5721-5727.	2.9	157
8	Are Carbonic Anhydrase Inhibitors Suitable for Obtaining Antiobesity Drugs ?. Current Pharmaceutical Design, 2008, 14, 655-660.	0.9	150
9	The zinc coordination pattern in the Î-carbonic anhydrase from Plasmodium falciparum is different from all other carbonic anhydrase genetic families. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 1385-1389.	1.0	108
10	Carbonic Anhydrase Inhibitors:Â Hypoxia-Activatable Sulfonamides Incorporating Disulfide Bonds that Target the Tumor-Associated Isoform IXâ€. Journal of Medicinal Chemistry, 2006, 49, 5544-5551.	2.9	100
11	X-ray structure of the first `extremo-Î±-carbonic anhydrase', a dimeric enzyme from the thermophilic bacteriumSulfurihydrogenibium yellowstonenseYO3AOP1. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 1150-1159.	2.5	100
12	2-Substituted Estradiol Bis-sulfamates, Multitargeted Antitumor Agents:Â Synthesis, In Vitro SAR, Protein Crystallography, and In Vivo Activityâ€. Journal of Medicinal Chemistry, 2006, 49, 7683-7696.	2.9	98
13	Crystal structure of human carbonic anhydrase XIII and its complex with the inhibitor acetazolamide. Proteins: Structure, Function and Bioinformatics, 2009, 74, 164-175.	1.5	97
14	Carbonic anhydrase inhibitors: Valdecoxib binds to a different active site region of the human isoform II as compared to the structurally related cyclooxygenase II â€˜selectiveâ€™ inhibitor celecoxib. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 437-442.	1.0	93
15	Crystal structure of the C183S/C217S mutant of human CA VII in complex with acetazolamide. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 5023-5026.	1.0	81
16	Crystal structure of the most catalytically effective carbonic anhydrase enzyme known, SazCA from the thermophilic bacterium Sulfurihydrogenibium azorense. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 2002-2006.	1.0	72
17	Benzoxaborole as a new chemotype for carbonic anhydrase inhibition. Chemical Communications, 2016, 52, 11983-11986.	2.2	69
18	Thermostable Carbonic Anhydrases in Biotechnological Applications. International Journal of Molecular Sciences, 2015, 16, 15456-15480.	1.8	66

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19	Hydroxamate represents a versatile zinc binding group for the development of new carbonic anhydrase inhibitors. Chemical Communications, 2012, 48, 8838.	2.2	63
20	Carbonic anhydrase VII is S-glutathionylated without loss of catalytic activity and affinity for sulfonamide inhibitors. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 1560-1564.	1.0	53
21	Structureâ€“Activity Relationships of C-17 Cyano-Substituted Estratrienes as Anticancer Agents. Journal of Medicinal Chemistry, 2008, 51, 1295-1308.	2.9	50
22	Carbonic anhydrase inhibitors: X-ray crystallographic studies for the binding of N-substituted benzenesulfonamides to human isoform II. Chemical Communications, 2011, 47, 11636.	2.2	50
23	The Importance of Dynamic Effects on the Enzyme Activity. Journal of Biological Chemistry, 2005, 280, 17953-17960.	1.6	49
24	Carbonic anhydrase inhibitors: X-ray crystal structure of a benzenesulfonamide strong CA II and CA IX inhibitor bearing a pentafluorophenylaminothioureido tail in complex with isozyme II. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 1937-1942.	1.0	40
25	Probing Molecular Interactions between Human Carbonic Anhydrases (hCAs) and a Novel Class of Benzenesulfonamides. Journal of Medicinal Chemistry, 2017, 60, 4316-4326.	2.9	40
26	Anticancer steroid sulfatase inhibitors: synthesis of a potent fluorinated second-generation agent, in vitro and in vivo activities, molecular modeling, and protein crystallography. Molecular Cancer Therapeutics, 2008, 7, 2435-2444.	1.9	39
27	Carbonic anhydrase inhibitors: Binding of an antiglaucoma glycosyl-sulfanilamide derivative to human isoform II and its consequences for the drug design of enzyme inhibitors incorporating sugar moieties. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 1726-1731.	1.0	38
28	Carbonic anhydrase inhibitors: The X-ray crystal structure of ethoxzolamide complexed to human isoform II reveals the importance of thr200 and gln92 for obtaining tight-binding inhibitors. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 2669-2674.	1.0	35
29	Insights into the role of reactive sulfhydryl groups of Carbonic Anhydrase III and VII during oxidative damage. Journal of Enzyme Inhibition and Medicinal Chemistry, 2017, 32, 5-12.	2.5	35
30	Structure and Stability of the Non-covalent Swapped Dimer of Bovine Seminal Ribonuclease. Journal of Biological Chemistry, 2004, 279, 36753-36760.	1.6	33
31	Carbonic anhydrase inhibitors: X-ray crystallographic studies for the binding of 5-amino-1,3,4-thiadiazole-2-sulfonamide and 5-(4-amino-3-chloro-5-fluorophenylsulfonamido)-1,3,4-thiadiazole-2-sulfonamide to human isoform II. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 6204-6208.	1.0	32
32	Recent Advances in Structural Studies of the Carbonic Anhydrase Family: The Crystal Structure of Human CA IX and CA XIII. Current Pharmaceutical Design, 2010, 16, 3246-3254.	0.9	32
33	Protective Role of Carbonic Anhydrases III and VII in Cellular Defense Mechanisms upon Redox Unbalance. Oxidative Medicine and Cellular Longevity, 2018, 2018, 1-9.	1.9	32
34	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.	2.0	31
35	Exploring structural properties of potent human carbonic anhydrase inhibitors bearing a 4-(cycloalkylamino-1-carbonyl)benzenesulfonamide moiety. European Journal of Medicinal Chemistry, 2019, 163, 443-452.	2.6	31
36	The Role of the Hinge Loop in Domain Swapping. Journal of Biological Chemistry, 2005, 280, 13771-13778.	1.6	29

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37	Carbonic anhydrase inhibitors: Crystallographic and solution binding studies for the interaction of a boron-containing aromatic sulfamide with mammalian isoforms Iâ€“XV. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 3601-3605.	1.0	27
38	Faox enzymes inhibited Maillard reaction development during storage both in protein glucose model system and low lactose UHT milk. Amino Acids, 2014, 46, 279-288.	1.2	27
39	X-ray crystallographic and kinetic investigations of 6-sulfamoyl-saccharin as a carbonic anhydrase inhibitor. Organic and Biomolecular Chemistry, 2015, 13, 4064-4069.	1.5	26
40	The anticonvulsant sulfamide JNJ-26990990 and its S,S-dioxide analog strongly inhibit carbonic anhydrases: solution and X-ray crystallographic studies. Organic and Biomolecular Chemistry, 2016, 14, 4853-4858.	1.5	26
41	The Crystal Structure of a hCA VII Variant Provides Insights into the Molecular Determinants Responsible for Its Catalytic Behavior. International Journal of Molecular Sciences, 2018, 19, 1571.	1.8	23
42	Human carbonic anhydrases and post-translational modifications: a hidden world possibly affecting protein properties and functions. Journal of Enzyme Inhibition and Medicinal Chemistry, 2020, 35, 1450-1461.	2.5	19
43	Biochemical and structural characterisation of a protozoan beta-carbonic anhydrase from Trichomonas vaginalis. Journal of Enzyme Inhibition and Medicinal Chemistry, 2020, 35, 1292-1299.	2.5	19
44	The unswapped chain of bovine seminal ribonuclease: Crystal structure of the free and liganded monomeric derivative. Proteins: Structure, Function and Bioinformatics, 2003, 52, 263-271.	1.5	17
45	Disclosing the Interaction of Carbonic Anhydrase IX with Cullin-Associated NEDD8-Dissociated Protein 1 by Molecular Modeling and Integrated Binding Measurements. ACS Chemical Biology, 2017, 12, 1460-1465.	1.6	17
46	Hydrophobic Substituents of the Phenylmethylsulfamide Moiety Can Be Used for the Development of New Selective Carbonic Anhydrase Inhibitors. BioMed Research International, 2014, 2014, 1-11.	0.9	14
47	Hydroxylamine-O-sulfonamide is a versatile lead compound for the development of carbonic anhydrase inhibitors. Chemical Communications, 2015, 51, 11519-11522.	2.2	10
48	Inhibition of the newly discovered Î²â€carbonic anhydrase from the protozoan pathogen Trichomonas vaginalis with inorganic anions and small molecules. Journal of Inorganic Biochemistry, 2020, 213, 111274.	1.5	10
49	Exploration of the residues modulating the catalytic features of human carbonic anhydrase XIII by a site-specific mutagenesis approach. Journal of Enzyme Inhibition and Medicinal Chemistry, 2019, 34, 1506-1510.	2.5	7
50	Exploring benzoxaborole derivatives as carbonic anhydrase inhibitors: a structural and computational analysis reveals their conformational variability as a tool to increase enzyme selectivity. Journal of Enzyme Inhibition and Medicinal Chemistry, 2019, 34, 1498-1505.	2.5	7
51	Post-translational modifications in tumor-associated carbonic anhydrases. Amino Acids, 2022, 54, 543-558.	1.2	7
52	Looking toward the Rim of the Active Site Cavity of Druggable Human Carbonic Anhydrase Isoforms. ACS Medicinal Chemistry Letters, 2020, 11, 1000-1005.	1.3	6
53	Interaction Studies between Carbonic Anhydrase and a Sulfonamide Inhibitor by Experimental and Theoretical Approaches. ACS Medicinal Chemistry Letters, 2022, 13, 271-277.	1.3	6
54	Biochemical and Structural Insights into the Winged Helix Domain of P150, the Largest Subunit of the Chromatin Assembly Factor 1. International Journal of Molecular Sciences, 2022, 23, 2160.	1.8	6

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55	Recent Developments of Carbonic Anhydrase Inhibitors as Potential Drugs. BioMed Research International, 2015, 2015, 1-2.	0.9	4
56	Inhibition of the Î²-carbonic anhydrase from the protozoan pathogen Trichomonas vaginalis with sulphonamides. Journal of Enzyme Inhibition and Medicinal Chemistry, 2021, 36, 330-335.	2.5	4
57	Î±-Carbonic anhydrases. , 2019, , 19-54.		2
58	The crystal structures of 2-(4-benzhydrylpiperazin-1-yl)-N-(4-sulfamoylphenyl)acetamide in complex with human carbonic anhydrase II and VII provide insights into selective CA inhibitor development. New Journal of Chemistry, 2021, 45, 147-152.	1.4	2
59	Design, synthesis and biochemical evaluation of novel carbonic anhydrase inhibitors triggered by structural knowledge on hCA VII. Bioorganic and Medicinal Chemistry, 2021, 44, 116279.	1.4	2
60	Carbonic Anhydrase VII. , 2015, , 151-168.		1
61	Î- and Î¸-carbonic anhydrases. , 2019, , 139-148.		1
62	Beta-Carbonic Anhydrase 1 from Trichomonas Vaginalis as New Antiprotozoan Drug Target. Topics in Medicinal Chemistry, 2021, , 1.	0.4	0