

# Claudiu T Supuran

## List of Publications by Year in descending order

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1,806  
papers

100,386  
citations

333

137  
h-index

1381

222  
g-index

1855  
all docs

1855  
docs citations

1855  
times ranked

31548  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Carbonic anhydrases: novel therapeutic applications for inhibitors and activators. <i>Nature Reviews Drug Discovery</i> , 2008, 7, 168-181.                                   | 21.5 | 2,702     |
| 2  | Natural products in drug discovery: advances and opportunities. <i>Nature Reviews Drug Discovery</i> , 2021, 20, 200-216.   | 21.5 | 1,990     |
| 3  | Interfering with pH regulation in tumours as a therapeutic strategy. <i>Nature Reviews Drug Discovery</i> , 2011, 10, 767-777.  | 21.5 | 1,340     |
| 4  | Carbonic anhydrase inhibitors. <i>Medicinal Research Reviews</i> , 2003, 23, 146-189.   | 5.0  | 1,126     |
| 5  | Multiple Binding Modes of Inhibitors to Carbonic Anhydrases: How to Design Specific Drugs Targeting 15 Different Isoforms?. <i>Chemical Reviews</i> , 2012, 112, 4421-4468.   | 23.0 | 1,056     |
| 6  | Carbonic anhydrase inhibitors. <i>Bioorganic and Medicinal Chemistry</i> , 1999, 7, 2397-2406.  | 1.4  | 808       |
| 7  | Structure and function of carbonic anhydrases. <i>Biochemical Journal</i> , 2016, 473, 2023-2032.   | 1.7  | 688       |
| 8  | Targeting Tumor Hypoxia: Suppression of Breast Tumor Growth and Metastasis by Novel Carbonic Anhydrase IX Inhibitors. <i>Cancer Research</i> , 2011, 71, 3364-3376.           | 0.4  | 662       |
| 9  | Anticancer and Antiviral Sulfonamides. <i>Current Medicinal Chemistry</i> , 2003, 10, 925-953.  | 1.2  | 646       |
| 10 | Hypoxia activates the capacity of tumor-associated carbonic anhydrase IX to acidify extracellular pH. <i>FEBS Letters</i> , 2004, 577, 439-445.                               | 1.3  | 620       |
| 11 | Review Article. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2004, 19, 199-229.  | 2.5  | 595       |
| 12 | How many carbonic anhydrase inhibition mechanisms exist?. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2016, 31, 345-360.                                    | 2.5  | 588       |
| 13 | Carbonic anhydrase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 3467-3474.   | 1.0  | 579       |
| 14 | Structure-based drug discovery of carbonic anhydrase inhibitors. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2012, 27, 759-772.                             | 2.5  | 554       |
| 15 | Carbonic anhydrases as targets for medicinal chemistry. <i>Bioorganic and Medicinal Chemistry</i> , 2007, 15, 4336-4350.  | 1.4  | 521       |
| 16 | Carbonic anhydrase inhibitors and their therapeutic potential. <i>Expert Opinion on Therapeutic Patents</i> , 2000, 10, 575-600.  | 2.4  | 485       |
| 17 | Carbonic Anhydrases An Overview. <i>Current Pharmaceutical Design</i> , 2008, 14, 603-614.  | 0.9  | 476       |
| 18 | Non-Zinc Mediated Inhibition of Carbonic Anhydrases: Coumarins Are a New Class of Suicide Inhibitors. <i>Journal of the American Chemical Society</i> , 2009, 131, 3057-3062. | 6.6  | 457       |

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|----|---|-----|-----------|
| 19 | 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       |
| 20 | Ureido-Substituted Benzenesulfonamides Potently Inhibit Carbonic Anhydrase IX and Show Antimetastatic Activity in a Model of Breast Cancer Metastasis. Journal of Medicinal Chemistry, 2011, 54, 1896-1902.   | 2.9 | 443       |
| 21 | Unexpected Nanomolar Inhibition of Carbonic Anhydrase by COX-2-Selective Celecoxib: A New Pharmacological Opportunities Due to Related Binding Site Recognition. Journal of Medicinal Chemistry, 2004, 47, 550-557.   | 2.9 | 426       |
| 22 | Protease inhibitors of the sulfonamide type: Anticancer, antiinflammatory, and antiviral agents. Medicinal Research Reviews, 2003, 23, 535-558.   | 5.0 | 385       |
| 23 | Recent Developments in Targeting Carbonic Anhydrase IX for Cancer Therapeutics. Oncotarget, 2012, 3, 84-97.   | 0.8 | 365       |
| 24 | Deciphering the Mechanism of Carbonic Anhydrase Inhibition with Coumarins and Thiocoumarins. Journal of Medicinal Chemistry, 2010, 53, 335-344.   | 2.9 | 363       |
| 25 | Targeting tumor-associated carbonic anhydrase IX in cancer therapy. Trends in Pharmacological Sciences, 2006, 27, 566-573.  | 4.0 | 362       |
| 26 | Advances in structure-based drug discovery of carbonic anhydrase inhibitors. Expert Opinion on Drug Discovery, 2017, 12, 61-88.   | 2.5 | 356       |
| 27 | An overview of the alpha-, beta- and gamma-carbonic anhydrases from <i>Bacteria</i> : can bacterial carbonic anhydrases shed new light on evolution of bacteria?. Journal of Enzyme Inhibition and Medicinal Chemistry, 2015, 30, 325-332.  | 2.5 | 328       |
| 28 | Adverse Cardiovascular Effects of the Coxibs. Journal of Medicinal Chemistry, 2005, 48, 2251-2257.  | 2.9 | 304       |
| 29 | Discovery of a new family of carbonic anhydrases in the malaria pathogen Plasmodium falciparum – The $\Gamma$ -carbonic anhydrases. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 4389-4396.  | 1.0 | 297       |
| 30 | Carbonic Anhydrase Inhibitors. Synthesis of Water-Soluble, Topically Effective, Intraocular Pressure-Lowering Aromatic/Heterocyclic Sulfonamides Containing Cationic or Anionic Moieties: Is the Tail More Important than the Ring?. Journal of Medicinal Chemistry, 1999, 42, 2641-2650. | 2.9 | 278       |
| 31 | Carbonic anhydrases: from biomedical applications of the inhibitors and activators to biotechnological use for CO <sub>2</sub> capture. Journal of Enzyme Inhibition and Medicinal Chemistry, 2013, 28, 229-230.  | 2.5 | 278       |
| 32 | Antiglaucoma carbonic anhydrase inhibitors: a patent review. Expert Opinion on Therapeutic Patents, 2013, 23, 705-716.  | 2.4 | 273       |
| 33 | Carbonic Anhydrase Activators: X-ray Crystallographic and Spectroscopic Investigations for the Interaction of Isozymes I and II with Histamine,. Biochemistry, 1997, 36, 10384-10392.   | 1.2 | 269       |
| 34 | Carbonic anhydrase inhibitors and activators for novel therapeutic applications. Future Medicinal Chemistry, 2011, 3, 1165-1180.  | 1.1 | 260       |
| 35 | Biochemical Characterization of CA IX, One of the Most Active Carbonic Anhydrase Isozymes. Journal of Biological Chemistry, 2008, 283, 27799-27809.   | 1.6 | 258       |
| 36 | The Warburg Effect and the Hallmarks of Cancer. Anti-Cancer Agents in Medicinal Chemistry, 2017, 17, 164-170.   | 0.9 | 258       |

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|----|---|-----|-----------|
| 37 | Sulfa and trimethoprim-like drugs – antimetabolites acting as carbonic anhydrase, dihydropteroate synthase and dihydrofolate reductase inhibitors. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2014, 29, 379-387.   | 2.5 | 255       |
| 38 | Carbonic anhydrase inhibitors: Sulfonamides as antitumor agents?. <i>Bioorganic and Medicinal Chemistry</i> , 2001, 9, 703-714.   | 1.4 | 252       |
| 39 | Diuretics with carbonic anhydrase inhibitory action: a patent and literature review (2005 – 2013). <i>Expert Opinion on Therapeutic Patents</i> , 2013, 23, 681-691.  | 2.4 | 252       |
| 40 | Carbonic anhydrase inhibitors: E7070, a sulfonamide anticancer agent, potently inhibits cytosolic isozymes I and II, and transmembrane, tumor-associated isozyme IX. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, 14, 217-223.   | 1.0 | 251       |
| 41 | The Role of Carbonic Anhydrase 9 in Regulating Extracellular and Intracellular pH in Three-dimensional Tumor Cell Growths. <i>Journal of Biological Chemistry</i> , 2009, 284, 20299-20310.   | 1.6 | 249       |
| 42 | <b>Antiobesity carbonic anhydrase inhibitors: a literature and patent review</b>. <i>Expert Opinion on Therapeutic Patents</i> , 2013, 23, 725-735.   | 2.4 | 246       |
| 43 | Sulfonamides and Sulfonylated Derivatives as Anticancer Agents. <i>Current Cancer Drug Targets</i> , 2002, 2, 55-75.  | 0.8 | 243       |
| 44 | Applications of carbonic anhydrase inhibitors and activators in therapy. <i>Expert Opinion on Therapeutic Patents</i> , 2002, 12, 217-242.  | 2.4 | 243       |
| 45 | A Small Molecule Drug Conjugate for the Treatment of Carbonic Anhydrase IX Expressing Tumors. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4231-4235.   | 7.2 | 242       |
| 46 | Bacterial Carbonic Anhydrases as Drug Targets: Toward Novel Antibiotics?. <i>Frontiers in Pharmacology</i> , 2011, 2, 34.   | 1.6 | 229       |
| 47 | Exploiting the hydrophobic and hydrophilic binding sites for designing carbonic anhydrase inhibitors. <i>Expert Opinion on Drug Discovery</i> , 2013, 8, 793-810.   | 2.5 | 229       |
| 48 | Glycosyl Coumarin Carbonic Anhydrase IX and XII Inhibitors Strongly Attenuate the Growth of Primary Breast Tumors. <i>Journal of Medicinal Chemistry</i> , 2011, 54, 8271-8277.   | 2.9 | 228       |
| 49 | Anticancer carbonic anhydrase inhibitors: a patent review (2008 – 2013). <i>Expert Opinion on Therapeutic Patents</i> , 2013, 23, 737-749.  | 2.4 | 226       |
| 50 | Carbonic Anhydrase and Matrix Metalloproteinase Inhibitors: Sulfonated Amino Acid Hydroxamates with MMP Inhibitory Properties Act as Efficient Inhibitors of CA Isozymes I, II, and IV, and N-Hydroxysulfonamides Inhibit Both These Zinc Enzymes. <i>Journal of Medicinal Chemistry</i> , 2000, 43, 3677-3687. | 2.9 | 224       |
| 51 | Highly Active Antiretroviral Therapy: Current State of the Art, New Agents and Their Pharmacological Interactions Useful for Improving Therapeutic Outcome. <i>Current Pharmaceutical Design</i> , 2005, 11, 1805-1843.   | 0.9 | 222       |
| 52 | Carbonic anhydrase inhibitors: SAR and X-ray crystallographic study for the interaction of sugar sulfamates/sulfamides with isozymes I, II and IV. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 841-845.   | 1.0 | 221       |
| 53 | Carbonic Anhydrase in the Scleractinian Coral <i>Stylophora pistillata</i> . <i>Journal of Biological Chemistry</i> , 2008, 283, 25475-25484.   | 1.6 | 221       |
| 54 | Diuretics: From Classical Carbonic Anhydrase Inhibitors to Novel Applications of the Sulfonamides. <i>Current Pharmaceutical Design</i> , 2008, 14, 641-648.  | 0.9 | 219       |

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| 55 | Carbonic anhydrase inhibitors. Inhibition of the transmembrane isozyme XII with sulfonamidesâ€”a new target for the design of antitumor and antiglaucoma drugs?. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2005, 15, 963-969.                 | 1.0 | 212       |
| 56 | Dithiocarbamates Strongly Inhibit Carbonic Anhydrases and Show Antiglaucoma Action in Vivo. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 1721-1730.  | 2.9 | 211       |
| 57 | Characterization of CA XIII, a Novel Member of the Carbonic Anhydrase Isozyme Family. <i>Journal of Biological Chemistry</i> , 2004, 279, 2719-2727.  | 1.6 | 210       |
| 58 | Carbonic anhydrase IX: A new druggable target for the design of antitumor agents. <i>Medicinal Research Reviews</i> , 2008, 28, 445-463.  | 5.0 | 210       |
| 59 | Carbonic Anhydrase Inhibitors as Anticonvulsant Agents. <i>Current Topics in Medicinal Chemistry</i> , 2007, 7, 855-864.  | 1.0 | 209       |
| 60 | Carbonic anhydrase inhibitors. Inhibition of human erythrocyte isozymes I and II with a series of antioxidant phenols. <i>Bioorganic and Medicinal Chemistry</i> , 2009, 17, 3207-3211.   | 1.4 | 207       |
| 61 | Inhibition of carbonic anhydrase IX targets primary tumors, metastases, and cancer stem cells: Three for the price of one. <i>Medicinal Research Reviews</i> , 2018, 38, 1799-1836.   | 5.0 | 207       |
| 62 | Carbonic Anhydrase Inhibitors. Design of Fluorescent Sulfonamides as Probes of Tumor-Associated Carbonic Anhydrase IX That Inhibit Isozyme IX-Mediated Acidification of Hypoxic Tumorsâ€”. <i>Journal of Medicinal Chemistry</i> , 2005, 48, 4834-4841. | 2.9 | 205       |
| 63 | Polyamines Inhibit Carbonic Anhydrases by Anchoring to the Zinc-Coordinated Water Molecule. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 5511-5522.  | 2.9 | 205       |
| 64 | Carbonic anhydrase inhibitors. Inhibition of mammalian isoforms Iâ€”XIV with a series of natural product polyphenols and phenolic acids. <i>Bioorganic and Medicinal Chemistry</i> , 2010, 18, 2159-2164.   | 1.4 | 204       |
| 65 | Anti-infective carbonic anhydrase inhibitors: a patent and literature review. <i>Expert Opinion on Therapeutic Patents</i> , 2013, 23, 693-704.   | 2.4 | 203       |
| 66 | Sulfonamides: a patent review (2008 â€” 2012). <i>Expert Opinion on Therapeutic Patents</i> , 2012, 22, 747-758.  | 2.4 | 201       |
| 67 | Carbonic Anhydrase Inhibitors:â€” X-ray and Molecular Modeling Study for the Interaction of a Fluorescent Antitumor Sulfonamide with Isozyme II and IX. <i>Journal of the American Chemical Society</i> , 2006, 128, 8329-8335.                         | 6.6 | 200       |
| 68 | Selective hydrophobic pocket binding observed within the carbonic anhydrase II active site accommodate different 4-substituted-ureido-benzenesulfonamides and correlate to inhibitor potency. <i>Chemical Communications</i> , 2010, 46, 8371.          | 2.2 | 200       |
| 69 | Sulfocoumarins (1,2-Benzoxathiine-2,2-dioxides): A Class of Potent and Isoform-Selective Inhibitors of Tumor-Associated Carbonic Anhydrases. <i>Journal of Medicinal Chemistry</i> , 2013, 56, 293-300.   | 2.9 | 199       |
| 70 | Carbonic Anhydrase Inhibition and the Management of Hypoxic Tumors. <i>Metabolites</i> , 2017, 7, 48.   | 1.3 | 197       |
| 71 | Carbonic Anhydrase Inhibitors. <i>Current Medicinal Chemistry Immunology, Endocrine &amp; Metabolic Agents</i> , 2001, 1, 61-97.  | 0.2 | 195       |
| 72 | Carbonic Anhydrases as Drug Targets - An Overview. <i>Current Topics in Medicinal Chemistry</i> , 2007, 7, 825-833.   | 1.0 | 195       |

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|----|---|-----|-----------|
| 73 | Carbonic anhydrase inhibitors as emerging agents for the treatment and imaging of hypoxic tumors. Expert Opinion on Investigational Drugs, 2018, 27, 963-970.   | 1.9 | 195       |
| 74 | Structure and Inhibition of the CO <sub>2</sub> -Sensing Carbonic Anhydrase Can2 from the Pathogenic Fungus <i>Cryptococcus neoformans</i> . Journal of Molecular Biology, 2009, 385, 1207-1220.  | 2.0 | 193       |
| 75 | Sulfamates and their therapeutic potential. Medicinal Research Reviews, 2005, 25, 186-228.  | 5.0 | 191       |
| 76 | Carbonic anhydrase inhibitors: inhibition of the tumor-associated isozyme IX with aromatic and heterocyclic sulfonamides. Bioorganic and Medicinal Chemistry Letters, 2003, 13, 1005-1009.  | 1.0 | 189       |
| 77 | The &#945; and &#946; Classes Carbonic Anhydrases from <i>Helicobacter pylori</i> as Novel Drug Targets. Current Pharmaceutical Design, 2008, 14, 622-630.  | 0.9 | 188       |
| 78 | Synthesis and Carbonic Anhydrase Isoenzymes I, II, IX, and XII Inhibitory Effects of Dimethoxybromophenol Derivatives Incorporating Cyclopropane Moieties. Journal of Medicinal Chemistry, 2015, 58, 640-650.   | 2.9 | 187       |
| 79 | Carbonic anhydrase inhibitors: Interactions of phenols with the 12 catalytically active mammalian isoforms (CA I&#14;XIV). Bioorganic and Medicinal Chemistry Letters, 2008, 18, 1583-1587.   | 1.0 | 186       |
| 80 | (In)organic anions as carbonic anhydrase inhibitors. Journal of Inorganic Biochemistry, 2012, 111, 117-129.   | 1.5 | 186       |
| 81 | Tumor-associated Carbonic Anhydrase 9 Spatially Coordinates Intracellular pH in Three-dimensional Multicellular Growths. Journal of Biological Chemistry, 2008, 283, 20473-20483.   | 1.6 | 185       |
| 82 | Imaging of CA IX with fluorescent labelled sulfonamides distinguishes hypoxic and (re)-oxygenated cells in a xenograft tumour model. Radiotherapy and Oncology, 2009, 92, 423-428.  | 0.3 | 185       |
| 83 | Carbonic Anhydrase Inhibitors. The Mitochondrial Isozyme VB as a New Target for Sulfonamide and Sulfamate Inhibitors. Journal of Medicinal Chemistry, 2005, 48, 7860-7866.  | 2.9 | 179       |
| 84 | Carbonic Anhydrase Inhibitors:Â Inhibition of Isozymes I, II, and IX with Triazole-Linked O-Glycosides of Benzene Sulfonamides. Journal of Medicinal Chemistry, 2007, 50, 1651-1657.  | 2.9 | 179       |
| 85 | 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       |
| 86 | Carbonic anhydrases in anthozoan corals&#169;A review. Bioorganic and Medicinal Chemistry, 2013, 21, 1437-1450.   | 1.4 | 174       |
| 87 | Bacterial, fungal and protozoan carbonic anhydrases as drug targets. Expert Opinion on Therapeutic Targets, 2015, 19, 1689-1704.  | 1.5 | 174       |
| 88 | Therapeutic potential of sulfamides as enzyme inhibitors. Medicinal Research Reviews, 2006, 26, 767-792.  | 5.0 | 173       |
| 89 | Rosmarinic acid inhibits some metabolic enzymes including glutathione <i>S</i> -transferase, lactoperoxidase, acetylcholinesterase, butyrylcholinesterase and carbonic anhydrase isoenzymes. Journal of Enzyme Inhibition and Medicinal Chemistry, 2016, 31, 1698-1702. | 2.5 | 173       |
| 90 | Sulfonamides and their isosters as carbonic anhydrase inhibitors. Future Medicinal Chemistry, 2014, 6, 1149-1165.   | 1.1 | 172       |

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|-----|---|-----|-----------|
| 91  | <i>In Vitro</i> Inhibition of Human Carbonic Anhydrase I and II Isozymes with Natural Phenolic Compounds. <i>Chemical Biology and Drug Design</i> , 2011, 77, 494-499.  | 1.5 | 170       |
| 92  | In vitro inhibition of $\hat{\Gamma}$ -carbonic anhydrase isozymes by some phenolic compounds. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 4259-4262.   | 1.0 | 170       |
| 93  | A Novel Class of Carbonic Anhydrase Inhibitors: $\hat{\Gamma}$ Glycoconjugate Benzene Sulfonamides Prepared by $\hat{\Gamma}$ Click-Tailing $\hat{\Gamma}$ . <i>Journal of Medicinal Chemistry</i> , 2006, 49, 6539-6548.   | 2.9 | 168       |
| 94  | Saccharin Inhibits Carbonic Anhydrases: Possible Explanation for its Unpleasant Metallic Aftertaste. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 7697-7699.  | 7.2 | 168       |
| 95  | Taking advantage of tumor cell adaptations to hypoxia for developing new tumor markers and treatment strategies. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2009, 24, 1-39.  | 2.5 | 167       |
| 96  | New strategies for targeting the hypoxic tumour microenvironment in breast cancer. <i>Cancer Treatment Reviews</i> , 2013, 39, 171-179.   | 3.4 | 167       |
| 97  | Indisulam: an anticancer sulfonamide in clinical development. <i>Expert Opinion on Investigational Drugs</i> , 2003, 12, 283-287.   | 1.9 | 166       |
| 98  | Carbonic anhydrase IX: Biochemical and crystallographic characterization of a novel antitumor target. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2010, 1804, 404-409.   | 1.1 | 166       |
| 99  | Carbonic anhydrase inhibitors as emerging drugs for the treatment of obesity. <i>Expert Opinion on Emerging Drugs</i> , 2008, 13, 383-392.  | 1.0 | 165       |
| 100 | An Overview of the Bacterial Carbonic Anhydrases. <i>Metabolites</i> , 2017, 7, 56.   | 1.3 | 165       |
| 101 | Carbonic Anhydrases and Metabolism. <i>Metabolites</i> , 2018, 8, 25.   | 1.3 | 164       |
| 102 | In vitro inhibition of salicylic acid derivatives on human cytosolic carbonic anhydrase isozymes I and II. <i>Bioorganic and Medicinal Chemistry</i> , 2008, 16, 9101-9105.   | 1.4 | 160       |
| 103 | Carbonic anhydrase inhibitors as antitumor/antimetastatic agents: a patent review (2008 $\hat{\Gamma}$ 2018). <i>Expert Opinion on Therapeutic Patents</i> , 2018, 28, 729-740.   | 2.4 | 160       |
| 104 | Modulation of carbonic anhydrase activity and its applications in therapy. <i>Expert Opinion on Therapeutic Patents</i> , 2004, 14, 667-702.  | 2.4 | 159       |
| 105 | Carbonic anhydrase inhibitors and activators and their use in therapy. <i>Expert Opinion on Therapeutic Patents</i> , 2006, 16, 1627-1664.  | 2.4 | 158       |
| 106 | Carbonic Anhydrase Inhibitors: $\hat{\Gamma}$ 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. <i>Journal of Medicinal Chemistry</i> , 2005, 48, 5721-5727. | 2.9 | 157       |
| 107 | Imaging the hypoxia surrogate marker CA IX requires expression and catalytic activity for binding fluorescent sulfonamide inhibitors. <i>Radiotherapy and Oncology</i> , 2007, 83, 367-373.   | 0.3 | 157       |
| 108 | Carbonic anhydrase inhibitors: The $\hat{\Gamma}$ -carbonic anhydrase from <i>Helicobacter pylori</i> is a new target for sulfonamide and sulfamate inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2007, 17, 3585-3594.  | 1.0 | 157       |



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| 109 | Dithiocarbamates: a new class of carbonic anhydrase inhibitors. Crystallographic and kinetic investigations. <i>Chemical Communications</i> , 2012, 48, 1868.  | 2.2 | 157       |
| 110 | Specific inhibition of carbonic anhydrase IX activity enhances the in vivo therapeutic effect of tumor irradiation. <i>Radiotherapy and Oncology</i> , 2011, 99, 424-431.  | 0.3 | 156       |
| 111 | Nonaromatic Sulfonamide Group as an Ideal Anchor for Potent Human Carbonic Anhydrase Inhibitors: Role of Hydrogen-Bonding Networks in Ligand Binding and Drug Design. <i>Journal of Medicinal Chemistry</i> , 2002, 45, 3583-3587.   | 2.9 | 154       |
| 112 | Carbonic Anhydrase Inhibitors: DNA Cloning and Inhibition Studies of the $\pm$ -Carbonic Anhydrase from <i>Helicobacter pylori</i> , A New Target for Developing Sulfonamide and Sulfamate Gastric Drugs. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 2117-2126.                                   | 2.9 | 154       |
| 113 | Progress in the development of human carbonic anhydrase inhibitors and their pharmacological applications: Where are we today?. <i>Medicinal Research Reviews</i> , 2020, 40, 2485-2565.   | 5.0 | 154       |
| 114 | Carbonic Anhydrase Inhibitors: Synthesis of Water-Soluble, Aminoacyl/Dipeptidyl Sulfonamides Possessing Long-Lasting Intraocular Pressure-Lowering Properties via the Topical Route. <i>Journal of Medicinal Chemistry</i> , 1999, 42, 3690-3700.  | 2.9 | 153       |
| 115 | Regulation of pH by Carbonic Anhydrase 9 Mediates Survival of Pancreatic Cancer Cells With Activated KRAS in Response to Hypoxia. <i>Gastroenterology</i> , 2019, 157, 823-837.  | 0.6 | 153       |
| 116 | Carbonic anhydrase inhibitors - Part 49: Synthesis of substituted ureido and thioureido derivatives of aromatic/heterocyclic sulfonamides with increased affinities for isozyme I. <i>European Journal of Medicinal Chemistry</i> , 1998, 33, 83-93.   | 2.6 | 152       |
| 117 | 7,8-Disubstituted- but not 6,7-disubstituted coumarins selectively inhibit the transmembrane, tumor-associated carbonic anhydrase isoforms IX and XII over the cytosolic ones I and II in the low nanomolar/subnanomolar range. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 7255-7258. | 1.0 | 152       |
| 118 | Carbonic anhydrase inhibitors. Antioxidant polyphenols effectively inhibit mammalian isoforms I-XV. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 5050-5053.   | 1.0 | 151       |
| 119 | Carbonic anhydrase inhibitors: The first selective, membrane-impermeant inhibitors targeting the tumor-associated isozyme IX. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, 14, 869-873.   | 1.0 | 150       |
| 120 | Are Carbonic Anhydrase Inhibitors Suitable for Obtaining Antiobesity Drugs ?. <i>Current Pharmaceutical Design</i> , 2008, 14, 655-660.  | 0.9 | 150       |
| 121 | A new approach to antiglaucoma drugs: carbonic anhydrase inhibitors with or without NO donating moieties. Mechanism of action and preliminary pharmacology. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2012, 27, 138-147.   | 2.5 | 150       |
| 122 | Carbonic Anhydrase Inhibitors. Design of Selective, Membrane-Impermeant Inhibitors Targeting the Human Tumor-Associated Isozyme IX. <i>Journal of Medicinal Chemistry</i> , 2004, 47, 2337-2347.   | 2.9 | 149       |
| 123 | Antimetastatic Effect of Sulfamate Carbonic Anhydrase IX Inhibitors in Breast Carcinoma Xenografts. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 5591-5600.   | 2.9 | 149       |
| 124 | Carbonic Anhydrase Inhibitors: Synthesis of Membrane-Impermeant Low Molecular Weight Sulfonamides Possessing in Vivo Selectivity for the Membrane-Bound versus Cytosolic Isozymes. <i>Journal of Medicinal Chemistry</i> , 2000, 43, 292-300.  | 2.9 | 147       |
| 125 | Bacterial protease inhibitors. <i>Medicinal Research Reviews</i> , 2002, 22, 329-372.  | 5.0 | 147       |
| 126 | Carbonic anhydrase inhibitors: X-ray crystallographic structure of the adduct of human isozyme II with EMATE, a dual inhibitor of carbonic anhydrases and steroid sulfatase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, 14, 231-234.  | 1.0 | 147       |



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|-----|--|-----|-----------|
| 127 | Metal binding and antibacterial activity of ciprofloxacin complexes. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2005, 20, 303-307.  | 2.5 | 147       |
| 128 | Carbonic Anhydrase Inhibitors: Clash with Ala65 as a Means for Designing Inhibitors with Low Affinity for the Ubiquitous Isozyme II, Exemplified by the Crystal Structure of the Topiramate Sulfamide Analogue. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 7024-7031.   | 2.9 | 147       |
| 129 | Zinc Complexes of Benzothiazole-derived Schiff Bases with Antibacterial Activity. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2003, 18, 259-263.   | 2.5 | 146       |
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