Citation Report
List of articles citing

Antiglaucoma carbonic anhydrase inhibitors: a patent review

DOI: 10.1517/13543776.2013.794788
Expert Opinion on Therapeutic Patents, 2013, 23, 705-16.

#	Paper	IF	Citations
251	5-Substituted-(1,2,3-triazol-4-yl)thiophene-2-sulfonamides strongly inhibit human carbonic anhydrases I, II, IX and XII: solution and X-ray crystallographic studies. **2013**, 21, 5130-8		26
250	A class of sulfonamides with strong inhibitory action against the □carbonic anhydrase from Trypanosoma cruzi. *Journal of Medicinal Chemistry*, **2013**, 56, 5773-81	8.3	51
249	Synthesis of novel acridine and bis acridine sulfonamides with effective inhibitory activity against the cytosolic carbonic anhydrase isoforms II and VII. **2013**, 21, 5799-805		29
248	Effect of incorporating a thiophene tail in the scaffold of acetazolamide on the inhibition of human carbonic anhydrase isoforms I, II, IX and XII. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 5646-9	2.9	17
247	Structural study of the location of the phenyl tail of benzene sulfonamides and the effect on human carbonic anhydrase inhibition. **2013**, 21, 6674-80		12
246	Inhibition of human carbonic anhydrase isoforms I-XIV with sulfonamides incorporating fluorine and 1,3,5-triazine moieties. **2013**, 21, 6929-36		18
245	4-amino-substituted benzenesulfonamides as inhibitors of human carbonic anhydrases. *Molecules*, **2014**, 19, 17356-80	4.8	16
244	Sulfonamides and their isosters as carbonic anhydrase inhibitors. **2014**, 6, 1149-65		133
243	Classical sulfonamides and their bioisosters as carbonic anhydrase inhibitors. **2014**, 18-33		3
242	A class of 4-sulfamoylphenyl-□aminoalkyl ethers with effective carbonic anhydrase inhibitory action and antiglaucoma effects. *Journal of Medicinal Chemistry*, **2014**, 57, 9673-86	8.3	44
241	Structural insights on carbonic anhydrase inhibitory action, isoform selectivity, and potency of sulfonamides and coumarins incorporating arylsulfonylureido groups. *Journal of Medicinal Chemistry*, **2014**, 57, 9152-67	8.3	46
240	Inhibition studies of new ureido-substituted sulfonamides incorporating a GABA moiety against human carbonic anhydrase isoforms I-XIV. **2014**, 22, 6768-75		21
239	6-Triazolyl-substituted sulfocoumarins are potent, selective inhibitors of the tumor-associated carbonic anhydrases IX and XII. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 1256-60	2.9	52
238	Combining the tail and the ring approaches for obtaining potent and isoform-selective carbonic anhydrase inhibitors: solution and X-ray crystallographic studies. **2014**, 22, 334-40		86
237	Sulfonamide inhibition studies of the □carbonic anhydrase from the diatom Thalassiosira weissflogii. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 275-9	2.9	47
236	Inhibition of carbonic anhydrase isoforms I, II, IX and XII with novel Schiff bases: identification of selective inhibitors for the tumor-associated isoforms over the cytosolic ones. **2014**, 22, 5883-90		11
235	Carbonic anhydrase inhibitory activity of sulfonamides and carboxylic acids incorporating cyclic imide scaffolds. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 5185-9	2.9	41

234	Sulfamates of methyl triterpenoates are effective and competitive inhibitors of carbonic anhydrase II. *European Journal of Medicinal Chemistry*, **2014**, 86, 95-102	6.8	13
233	Quinazoline-sulfonamides with potent inhibitory activity against the -carbonic anhydrase from Vibrio cholerae. **2014**, 22, 5133-40		35
232	Mono- and di-halogenated histamine, histidine and carnosine derivatives are potent carbonic anhydrase I, II, VII, XII and XIV activators. **2014**, 22, 4752-8		16
231	Label-free characterization of carbonic anhydrase-novel inhibitor interactions using surface plasmon resonance, isothermal titration calorimetry and fluorescence-based thermal shift assays. **2014**, 27, 46-56		19
230	Synthesis of 6-tetrazolyl-substituted sulfocoumarins acting as highly potent and selective inhibitors of the tumor-associated carbonic anhydrase isoforms IX and XII. **2014**, 22, 1522-8		45
229	MicroScale Thermophoresis: Interaction analysis and beyond. **2014**, 1077, 101-113		328
228	Carbonic Anhydrase II as Target for Drug Design. **2015**, 51-90		2
227	Nitric oxide donors and selective carbonic anhydrase inhibitors: a dual pharmacological approach for the treatment of glaucoma, cancer and osteoporosis. *Molecules*, **2015**, 20, 5667-79	4.8	29
226	Azobenzene-based inhibitors of human carbonic anhydrase II. **2015**, 11, 1129-35		14
225	Inhibition of carbonic anhydrase isoforms I, II, IX and XII with Schiff's bases incorporating iminoureido moieties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 901-7	5.6	13
224	Synthesis and cytotoxic activity of pentacyclic triterpenoid sulfamates. *Archiv Der Pharmazie*, **2015**, 348, 46-54	4.3	16
223	The -class carbonic anhydrases as drug targets for antimalarial agents. **2015**, 19, 551-63		135
222	X-ray crystallographic and kinetic investigations of 6-sulfamoyl-saccharin as a carbonic anhydrase inhibitor. **2015**, 13, 4064-9		18
221	Synthesis of 6-aryl-substituted sulfocoumarins and investigation of their carbonic anhydrase inhibitory action. **2015**, 23, 1430-6		33
220	A class of sulfonamide carbonic anhydrase inhibitors with neuropathic pain modulating effects. **2015**, 23, 1828-40		103
219	Synthesis of 3,4-dihydroxypyrrolidine-2,5-dione and 3,5-dihydroxybenzoic acid derivatives and evaluation of the carbonic anhydrase I and II inhibition. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 896-900	5.6	17
218	Sulfonamide inhibition studies of the -carbonic anhydrase from the Antarctic bacterium Pseudoalteromonas haloplanktis. *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 3550-5	2.9	28
217	Synthesis and carbonic anhydrase I, II, IX and XII inhibitory activity of sulfamates incorporating piperazinyl-ureido moieties. **2015**, 23, 5619-25		14

216	Synthesis of sulfonamides incorporating piperazinyl-ureido moieties and their carbonic anhydrase I, II, IX and XII inhibitory activity. *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 3850-3	2.9	23
215	Inhibition studies of bacterial, fungal and protozoan class carbonic anhydrases with Schiff bases incorporating sulfonamide moieties. **2015**, 23, 4181-4187		24
214	Acetazolamide for the treatment of idiopathic intracranial hypertension. **2015**, 15, 851-6		108
213	Sulfonamide bearing pyrazolylpyrazolines as potent inhibitors of carbonic anhydrase isoforms I, II, IX and XII. *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 3208-12	2.9	33
212	The carbonic anhydrase from the malaria mosquito Anopheles gambiae is highly inhibited by sulfonamides. **2015**, 23, 2303-9		20
211	Synthesis of a new series of dithiocarbamates with effective human carbonic anhydrase inhibitory activity and antiglaucoma action. **2015**, 23, 2368-76		34
210	Discovery of novel isatin-based sulfonamides with potent and selective inhibition of the tumor-associated carbonic anhydrase isoforms IX and XII. **2015**, 13, 6493-9		46
209	7-Amino-3,4-dihydro-1H-quinolin-2-one, a compound similar to the substituted coumarins, inhibits carbonic anhydrases without hydrolysis of the lactam ring. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 773-7	5.6	21
208	Sulfonamide inhibition studies of the carbonic anhydrase from the Antarctic cyanobacterium Nostoc commune. **2015**, 23, 1728-34		32
207	Dendrimers incorporating benzenesulfonamide moieties strongly inhibit carbonic anhydrase isoforms I-XIV. **2015**, 13, 6453-7		12
206	Poly(amidoamine) Dendrimers with Carbonic Anhydrase Inhibitory Activity and Antiglaucoma Action. *Journal of Medicinal Chemistry*, **2015**, 58, 4039-45	8.3	28
205	Inhibition of mammalian carbonic anhydrase isoforms I-XIV with a series of phenolic acid esters. **2015**, 23, 7181-8		24
204	New natural product carbonic anhydrase inhibitors incorporating phenol moieties. **2015**, 23, 7219-25		31
203	Cyclodextrin complexation highly enhances efficacy of arylsulfonylureido benzenesulfonamide carbonic anhydrase inhibitors as a topical antiglaucoma agents. **2015**, 23, 6223-7		9
202	Poly(amidoamine) dendrimers show carbonic anhydrase inhibitory activity against and class enzymes. **2015**, 23, 6794-8		26
201	Synthesis and carbonic anhydrase isoenzymes I, II, IX, and XII inhibitory effects of dimethoxybromophenol derivatives incorporating cyclopropane moieties. *Journal of Medicinal Chemistry*, **2015**, 58, 640-50	8.3	164
200	Inhibition of human carbonic anhydrase isozymes I, II, IX and XII with a new series of sulfonamides incorporating aroylhydrazone-, [1,2,4]triazolo[3,4-b][1,3,4]thiadiazinyl- or 2-(cyanophenylmethylene)-1,3,4-thiadiazol-3(2H)-yl moieties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 52-6	5.6	38
199	6-Substituted 1,2-benzoxathiine-2,2-dioxides are isoform-selective inhibitors of human carbonic anhydrases IX, XII and VA. **2015**, 13, 77-80		30

198	Phenols and Polyphenols as Carbonic Anhydrase Inhibitors. *Molecules*, **2016**, 21,	4.8	49
197	Legionella pneumophila Carbonic Anhydrases: Underexplored Antibacterial Drug Targets. **2016**, 5,		37
196	Investigation of the Effect of Some Optically Active Imine Compounds on the Enzyme Activities of hCA-I and hCA-II under In Vitro Conditions: An Experimental and Theoretical Study. **2016**, 30, 277-86		1
195	Carbonic anhydrase inhibition and the management of neuropathic pain. **2016**, 16, 961-8		104
194	Synthesis of 4-(thiazol-2-ylamino)-benzenesulfonamides with carbonic anhydrase I, II and IX inhibitory activity and cytotoxic effects against breast cancer cell lines. **2016**, 24, 3043-3051		43
193	Intramolecular oxidative deselenization of acylselenoureas: a facile synthesis of benzoxazole amides and carbonic anhydrase inhibitors. **2016**, 14, 11353-11356		23
192	Synthesis and carbonic anhydrase inhibitory activities of new thienyl-substituted pyrazoline benzenesulfonamides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 1-5	5.6	39
191	Prostaglandins with Carboxylic Functionalities for the Treatment of Glaucoma. **2016**, 269-279		1
190	Structure and function of carbonic anhydrases. **2016**, 473, 2023-32		524
189	Bacterial Carbonic Anhydrases. **2016**, 135-152		2
188	Benzenesulfonamides Incorporating Flexible Triazole Moieties Are Highly Effective Carbonic Anhydrase Inhibitors: Synthesis and Kinetic, Crystallographic, Computational, and Intraocular Pressure Lowering Investigations. *Journal of Medicinal Chemistry*, **2016**, 59, 10692-10704	8.3	73
187	Monothiocarbamates Strongly Inhibit Carbonic Anhydrases in Vitro and Possess Intraocular Pressure Lowering Activity in an Animal Model of Glaucoma. *Journal of Medicinal Chemistry*, **2016**, 59, 5857-67	8.3	47
186	Dorzolamide-induced relaxation of isolated rabbit ciliary arteries mediated by inhibition of extracellular calcium influx. **2016**, 60, 103-10		6
185	Kinetic and X-ray crystallographic investigations of substituted 2-thio-6-oxo-1,6-dihydropyrimidine-benzenesulfonamides acting as carbonic anhydrase inhibitors. **2016**, 24, 3643-8		12
184	Three-component synthesis and carbonic anhydrase inhibitory properties of novel octahydroacridines incorporating sulfaguanidine scaffold. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 63-69	5.6	3
183	Synthesis 4-[2-(2-mercapto-4-oxo-4H-quinazolin-3-yl)-ethyl]-benzenesulfonamides with subnanomolar carbonic anhydrase II and XII inhibitory properties. **2016**, 24, 4100-4107		9
182	A Divalent PAMAM-Based Matrix Metalloproteinase/Carbonic Anhydrase Inhibitor for the Treatment of Dry Eye Syndrome. **2016**, 22, 1714-21		11
181	Dithiocarbamates with potent inhibitory activity against the Saccharomyces cerevisiae β-carbonic anhydrase. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 132-6	5.6	15

180	Kinetic and in silico studies of hydroxy-based inhibitors of carbonic anhydrase isoforms I and II. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 31-7	5.6	10
179	Inhibition of carbonic anhydrase isoforms I, II, IX and XII with secondary sulfonamides incorporating benzothiazole scaffolds. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 1306-11	5.6	15
178	4-Arylbenzenesulfonamides as Human Carbonic Anhydrase Inhibitors (hCAIs): Synthesis by Pd Nanocatalyst-Mediated Suzuki-Miyaura Reaction, Enzyme Inhibition, and X-ray Crystallographic Studies. *Journal of Medicinal Chemistry*, **2016**, 59, 721-32	8.3	32
177	How many carbonic anhydrase inhibition mechanisms exist?. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 345-60	5.6	485
176	Drug interaction considerations in the therapeutic use of carbonic anhydrase inhibitors. **2016**, 12, 423-31		68
175	Development of 3-(4-aminosulphonyl)-phenyl-2-mercapto-3H-quinazolin-4-ones as inhibitors of carbonic anhydrase isoforms involved in tumorigenesis and glaucoma. **2016**, 24, 1402-7		9
174	Anion inhibition studies of the β-carbonic anhydrase from the pathogenic bacterium Vibrio cholerae. *Bioorganic and Medicinal Chemistry Letters*, **2016**, 26, 1406-10	2.9	18
173	Synthesis of N-alkyl (aril)-tetra pyrimidine thiones and investigation of their human carbonic anhydrase I and II inhibitory effects. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 1192-7	5.6	18
172	Synthesis and carbonic anhydrase I, II, IV and XII inhibitory properties of N-protected amino acid - sulfonamide conjugates. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 1476-83	5.6	13
171	Kinetic and X-ray crystallographic investigations on carbonic anhydrase isoforms I, II, IX and XII of a thioureido analog of SLC-0111. **2016**, 24, 976-81		59
170	Metal complexes of benzimidazole derived sulfonamide: Synthesis, molecular structures and antimicrobial activity. **2016**, 443, 179-185		33
169	Thioxocoumarins Show an Alternative Carbonic Anhydrase Inhibition Mechanism Compared to Coumarins. *Journal of Medicinal Chemistry*, **2016**, 59, 462-73	8.3	62
168	Development of a mechanism and an accurate and simple mathematical model for the description of drug release: Application to a relevant example of acetazolamide-controlled release from a bio-inspired elastin-based hydrogel. **2016**, 61, 286-92		21
167	Carbonic anhydrase inhibition for the management of cerebral ischemia: in vivo evaluation of sulfonamide and coumarin inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 894-9	5.6	78
166	Expression and characterization of a recombinant psychrophilic β-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, 810-7	5.6	6
165	A magnificent enzyme superfamily: carbonic anhydrases, their purification and characterization. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 689-94	5.6	105
164	Carbonic anhydrase inhibitory properties of some uracil derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 74-77	5.6	26
163	Synthesis and biological evaluation of cyclic imides incorporating benzenesulfonamide moieties as carbonic anhydrase I, II, IV and IX inhibitors. **2017**, 25, 1666-1671		27

162	Synthesis of bulky-tailed sulfonamides incorporating pyrido[2,3-d][1,2,4]triazolo[4,3-a]pyrimidin-1(5H)-yl) moieties and evaluation of their carbonic anhydrases I, II, IV and IX inhibitory effects. **2017**, 25, 2210-2217		30
161	Synthesis and human/bacterial carbonic anhydrase inhibition with a series of sulfonamides incorporating phthalimido moieties. **2017**, 25, 2524-2529		23
160	Lead Development of Thiazolylsulfonamides with Carbonic Anhydrase Inhibitory Action. *Journal of Medicinal Chemistry*, **2017**, 60, 3154-3164	8.3	10
159	Comparison of the anion inhibition profiles of the □and □carbonic anhydrases from the pathogenic bacterium Burkholderia pseudomallei. **2017**, 25, 2010-2015		6
158	Discovery of Benzenesulfonamides with Potent Human Carbonic Anhydrase Inhibitory and Effective Anticonvulsant Action: Design, Synthesis, and Pharmacological Assessment. *Journal of Medicinal Chemistry*, **2017**, 60, 2456-2469	8.3	38
157	N-Substituted and ring opened saccharin derivatives selectively inhibit transmembrane, tumor-associated carbonic anhydrases IX and XII. **2017**, 25, 3583-3589		29
156	A novel proton transfer salt of 2-amino-6-sulfamoylbenzothiazole and its metal complexes: the evaluation of their inhibition effects on human cytosolic carbonic anhydrases. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 231-239	5.6	5
155	Herbicide oryzalin inhibits human carbonic anhydrases in vitro. **2017**, 31, e21894		4
154	Synthesis and biological evaluation of novel aromatic and heterocyclic bis-sulfonamide Schiff bases as carbonic anhydrase I, II, VII and IX inhibitors. **2017**, 25, 3093-3097		42
153	Dual-tail approach to discovery of novel carbonic anhydrase IX inhibitors by simultaneously matching the hydrophobic and hydrophilic halves of the active site. *European Journal of Medicinal Chemistry*, **2017**, 132, 1-10	6.8	25
152	Synthesis of an acridine orange sulfonamide derivative with potent carbonic anhydrase IX inhibitory action. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 701-706	5.6	10
151	Inhibition of Malassezia globosa carbonic anhydrase with phenols. **2017**, 25, 2577-2582		34
150	Synthesis and carbonic anhydrase inhibition of a series of SLC-0111 analogs. **2017**, 25, 2569-2576		62
149	Psychoactive substances belonging to the amphetamine class potently activate brain carbonic anhydrase isoforms VA, VB, VII, and XII. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 1253-1259	5.6	24
148	Synthesis and biological evaluation of benzenesulphonamide-bearing 1,4,5-trisubstituted-1,2,3-triazoles possessing human carbonic anhydrase I, II, IV, and IX inhibitory activity. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 1187-1194	5.6	30
147	Development of sulfonamides incorporating phenylacrylamido functionalities as carbonic anhydrase isoforms I, II, IX and XII inhibitors. **2017**, 25, 5726-5732		8
146	Novel 4/3-((4-oxo-5-(2-oxoindolin-3-ylidene)thiazolidin-2-ylidene)amino) benzenesulfonamides: Synthesis, carbonic anhydrase inhibitory activity, anticancer activity and molecular modelling studies. *European Journal of Medicinal Chemistry*, **2017**, 139, 250-262	6.8	89
145	Synthesis and carbonic anhydrase I, II, VII, and IX inhibition studies with a series of benzo[d]thiazole-5- and 6-sulfonamides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 1071-1078	5.6	39

144	Synthesis and biological evaluation of histamine Schiff bases as carbonic anhydrase I, II, IV, VII, and IX activators. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 1305-1312	5.6	41
143	Carbonic anhydrase I, II, IV and IX inhibition with a series of 7-amino-3,4-dihydroquinolin-2(1H)-one derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 885-892	5.6	8
142	Advances in structure-based drug discovery of carbonic anhydrase inhibitors. *Expert Opinion on Drug Discovery*, **2017**, 12, 61-88	6.2	298
141	A class of carbonic anhydrase I - selective activators. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2017**, 32, 37-46	5.6	31
140	Zinc Enzyme Inhibitors. **2017**,		1
139	Discovery of 4-sulfamoyl-phenyl-□lactams as a new class of potent carbonic anhydrase isoforms I, II, IV and VII inhibitors: The first example of subnanomolar CA IV inhibitors. **2017**, 25, 539-544		13
138	Special Issue: Sulfonamides. *Molecules*, **2017**, 22,	4.8	47
137	Carbonic anhydrase activators. **2018**, 10, 561-573		86
136	Dynamics and Interactions of a 29 kDa Human Enzyme Studied by Solid-State NMR. **2018**, 9, 1307-1311		24
135	Activation studies of the □and □carbonic anhydrases from the pathogenic bacterium Vibrio cholerae with amines and amino acids. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 227-233	5.6	16
134	Synthesis and Biological Evaluation of 4-Sulfamoylphenyl/Sulfocoumarin Carboxamides as Selective Inhibitors of Carbonic Anhydrase Isoforms hCA II, IX, and XII. **2018**, 13, 1165-1171		8
133	Activation studies with amines and amino acids of the □carbonic anhydrase from the pathogenic protozoan Leishmania donovani chagasi. *Bioorganic Chemistry*, **2018**, 78, 406-410	5.1	17
132	Sulfonamide inhibition studies of two □carbonic anhydrases from the ascomycete fungus Sordaria macrospora, CAS1 and CAS2. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 390-396	5.6	9
131	Investigation of piperazines as human carbonic anhydrase I, II, IV and VII activators. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 303-308	5.6	5
130	Inhibition studies of Brucella suis □carbonic anhydrases with a series of 4-substituted pyridine-3-sulphonamides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 255-259	5.6	7
129	Activation studies with amines and amino acids of the □carbonic anhydrase encoded by the Rv3273 gene from the pathogenic bacterium Mycobacterium tuberculosis. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 364-369	5.6	16
128	The □carbonic anhydrase from the pathogenic bacterium Vibrio cholerae is potently activated by amines and amino acids. *Bioorganic Chemistry*, **2018**, 77, 1-5	5.1	16
127	The first activation study of a □carbonic anhydrase: TweCA□from the diatom Thalassiosira weissflogii is effectively activated by amines and amino acids. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 680-685	5.6	16

126	Discovery of Benzenesulfonamide Derivatives as Carbonic Anhydrase Inhibitors with Effective Anticonvulsant Action: Design, Synthesis, and Pharmacological Evaluation. *Journal of Medicinal Chemistry*, **2018**, 61, 3151-3165	8.3	18
125	Sulfonamide carbonic anhydrase inhibitors: Zinc coordination and tail effects influence inhibitory efficacy and selectivity for different isoforms. **2018**, 470, 128-132		6
124	Crystal structure of the human carbonic anhydrase II adduct with 1-(4-sulfamoylphenyl-ethyl)-2,4,6-triphenylpyridinium perchlorate, a membrane-impermeant, isoform selective inhibitor. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 151-157	5.6	24
123	Sulphonamide inhibition studies of the carbonic anhydrase from the bacterial pathogen Clostridium perfringens. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 31-36	5.6	12
122	Thermodynamic, kinetic, and structural parameterization of human carbonic anhydrase interactions toward enhanced inhibitor design. **2018**, 51, e10		24
121	Development of a high throughput yeast-based screening assay for human carbonic anhydrase isozyme II inhibitors. **2018**, 8, 124		7
120	Carbonic anhydrase inhibitors as emerging agents for the treatment and imaging of hypoxic tumors. **2018**, 27, 963-970		139
119	Carbonic anhydrase inhibitors and their potential in a range of therapeutic areas. *Expert Opinion on Therapeutic Patents*, **2018**, 28, 709-712	6.8	100
118	Applications of carbonic anhydrases inhibitors in renal and central nervous system diseases. *Expert Opinion on Therapeutic Patents*, **2018**, 28, 713-721	6.8	81
117	Organoruthenium and Organoosmium Complexes of 2-Pyridinecarbothioamides Functionalized with a Sulfonamide Motif: Synthesis, Cytotoxicity and Biomolecule Interactions. **2018**, 83, 612-619		9
116	Discovery of Adrenergic Receptors Blocker-Carbonic Anhydrase Inhibitor Hybrids for Multitargeted Antiglaucoma Therapy. *Journal of Medicinal Chemistry*, **2018**, 61, 5380-5394	8.3	45
115	Activation of and carbonic anhydrases from pathogenic bacteria with tripeptides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 945-950	5.6	28
114	The first activation studies of the carbonic anhydrase from the malaria parasite Plasmodium falciparum with amines and amino acids. *Bioorganic Chemistry*, **2018**, 80, 94-98	5.1	20
113	Inhibition of and carbonic anhydrases from bacteria and diatoms with NSaryl-N-hydroxy-ureas. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 1194-1198	5.6	16
112	Novel 6- and 7-Substituted Coumarins with Inhibitory Action against Lipoxygenase and Tumor-Associated Carbonic Anhydrase IX. *Molecules*, **2018**, 23,	4.8	20
111	Biomedical applications of prokaryotic carbonic anhydrases. *Expert Opinion on Therapeutic Patents*, **2018**, 28, 745-754	6.8	67
110	Carbonic Anhydrases and Metabolism. **2018**, 8,		115
109	Amino Acids as Building Blocks for Carbonic Anhydrase Inhibitors. **2018**, 8,		14

108	Benzamide-4-Sulfonamides Are Effective Human Carbonic Anhydrase I, II, VII, and IX Inhibitors. **2018**, 8,		10
107	Potent and Selective Carboxylic Acid Inhibitors of Tumor-Associated Carbonic Anhydrases IX and XII. *Molecules*, **2017**, 23,	4.8	8
106	Revisiting the Therapeutic Potential of Bothrops jararaca Venom: Screening for Novel Activities Using Connectivity Mapping. **2018**, 10,		4
105	Activation studies with amines and amino acids of the β-carbonic anhydrase from the pathogenic protozoan Trypanosoma cruzi. **2018**, 26, 4187-4190		12
104	Discovery of potent anti-convulsant carbonic anhydrase inhibitors: Design, synthesis, in-vitro and in-vivo appraisal. *European Journal of Medicinal Chemistry*, **2018**, 156, 430-443	6.8	13
103	Inhibition of carbonic anhydrases by a substrate analog: benzyl carbamate directly coordinates the catalytic zinc ion mimicking bicarbonate binding. **2018**, 54, 10312-10315		14
102	Synthesis, characterization, antimicrobial activity, carbonic anhydrase enzyme inhibitor effects, and computational studies on new Schiff bases of Sulfa drugs and their Pd(II), Cu(II) complexes. **2018**, 1171, 214-222		22
101	Novel therapies for glaucoma: a patent review (2013-2019). *Expert Opinion on Therapeutic Patents*, **2019**, 29, 769-780	6.8	15
100	Synthesis and biological evaluation of novel 3-(quinolin-4-ylamino)benzenesulfonamidesAQ3 as carbonic anhydrase isoforms I and II inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2019**, 34, 1457-1464	5.6	20
99	Advances in the structural annotation of human carbonic anhydrases and impact on future drug discovery. *Expert Opinion on Drug Discovery*, **2019**, 14, 1175-1197	6.2	96
98	Carbonic anhydrase activators and their potential in the pharmaceutical field. **2019**, 477-492		
97	Biotechnologic applications of carbonic anhydrases from extremophiles. **2019**, 495-514		
96	Carbonic Anhydrase 1-Mediated Calcification Is Associated With Atherosclerosis, and Methazolamide Alleviates Its Pathogenesis. **2019**, 10, 766		11
95	Mechanisms of action of carbonic anhydrase inhibitors. **2019**, 187-222		1
94	Synthesis, molecular docking analysis and carbonic anhydrase I-II inhibitory evaluation of new sulfonamide derivatives. *Bioorganic Chemistry*, **2019**, 91, 103153	5.1	33
93	Carbonic anhydrase inhibition and the management of glaucoma: a literature and patent review 2013-2019. *Expert Opinion on Therapeutic Patents*, **2019**, 29, 781-792	6.8	44
92	Carbonic anhydrases. **2019**, 3-16		11
91	Carbonic anhydrase inhibitors for the treatment of epilepsy and obesity. **2019**, 311-329		2

90	Promising Approach in the Treatment of Glaucoma Using Nanotechnology and Nanomedicine-Based Systems. *Molecules*, **2019**, 24,	4.8	13
89	Prostaglandin receptor agonists as antiglaucoma agents (a patent review 2013 - 2018). *Expert Opinion on Therapeutic Patents*, **2019**, 29, 793-803	6.8	16
88	Adrenergic agonists and antagonists as antiglaucoma agents: a literature and patent review (2013-2019). *Expert Opinion on Therapeutic Patents*, **2019**, 29, 805-815	6.8	13
87	Diagnostic markers for glaucoma: a patent and literature review (2013-2019). *Expert Opinion on Therapeutic Patents*, **2019**, 29, 829-839	6.8	11
86	The management of glaucoma and macular degeneration. *Expert Opinion on Therapeutic Patents*, **2019**, 29, 745-747	6.8	23
85	Agents for the prevention and treatment of age-related macular degeneration and macular edema: a literature and patent review. *Expert Opinion on Therapeutic Patents*, **2019**, 29, 761-767	6.8	28
84	Organoruthenium(II) complexes of acetazolamide potently inhibit human carbonic anhydrase isoforms I, II, IX and XII. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2019**, 34, 388-393	5.6	11
83	Indole-Based Hydrazones Containing A Sulfonamide Moiety as Selective Inhibitors of Tumor-Associated Human Carbonic Anhydrase Isoforms IX and XII. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	9
82	Pain Relieving Effect of-NSAIDs-CAIs Hybrid Molecules: Systemic and Intra-Articular Treatments against Rheumatoid Arthritis. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	17
81	Thermostability enhancement of the □carbonic anhydrase from Sulfurihydrogenibium yellowstonense by using the anchoring-and-self-labelling-protein-tag system (ASL). *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2019**, 34, 946-954	5.6	8
80	Carbonic Anhydrase Inhibitor□NO Donor Hybrids and Their Pharmacological Applications. **2019**, 229-242		6
79	Novel 8-Substituted Coumarins That Selectively Inhibit Human Carbonic Anhydrase IX and XII. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	14
78	A selectivity study of benzenesulfonamide derivatives on human carbonic anhydrase II/IX by 3D-QSAR, Molecular Docking and Molecular Dynamics Simulation. **2019**, 80, 234-243		10
77	Inhibition of □ □ □ □ □and □class carbonic anhydrases from bacteria, fungi, algae, diatoms and protozoans with famotidine. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2019**, 34, 644-650	5.6	30
76	Inhibition of bacterial □ □and □class carbonic anhydrases with selenazoles incorporating benzenesulfonamide moieties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2019**, 34, 244-249	5.6	12
75	Synthesis of novel benzenesulfonamide bearing 1,2,3-triazole linked hydroxy-trifluoromethylpyrazolines and hydrazones as selective carbonic anhydrase isoforms IX and XII inhibitors. *Bioorganic Chemistry*, **2019**, 85, 198-208	5.1	16
74	Microwave-assisted synthesis of 1-substituted-1H-benzimidazolium salts: Non-competitive inhibition of human carbonic anhydrase I and II. *Archiv Der Pharmazie*, **2019**, 352, e1800325	4.3	4
73	New sulfonamides containing organometallic-acylhydrazones: synthesis, characterisation and biological evaluation as inhibitors of human carbonic anhydrases. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2019**, 34, 451-458	5.6	8

72	Enhancement of the tail hydrophobic interactions within the carbonic anhydrase IX active site via structural extension: Design and synthesis of novel N-substituted isatins-SLC-0111 hybrids as carbonic anhydrase inhibitors and antitumor agents. *European Journal of Medicinal Chemistry*, **2019**, 162, 147-160	6.8	63
71	Direct and straightforward access to substituted alkyl selenols as novel carbonic anhydrase inhibitors. *European Journal of Medicinal Chemistry*, **2020**, 185, 111811	6.8	19
70	Synthesis and selective inhibitory effects of some 2-oxindole benzenesulfonamide conjugates on human carbonic anhydrase isoforms CA I, CA II, CA IX and CAXII. *Bioorganic Chemistry*, **2020**, 95, 103514	5.1	8
69	Structure-activity relationship of human carbonic anhydrase-II inhibitors: Detailed insight for future development as anti-glaucoma agents. *Bioorganic Chemistry*, **2020**, 95, 103557	5.1	18
68	Design, synthesis and biological evaluation of carbohydrate-based sulphonamide derivatives as topical antiglaucoma agents through selective inhibition of carbonic anhydrase II. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2020**, 35, 383-390	5.6	11
67	Effects of New NSAID-CAI Hybrid Compounds in Inflammation and Lung Fibrosis. **2020**, 10,		6
66	Synthesis of N-phenylsulfonamide derivatives and investigation of some esterase enzymes inhibiting properties. *Bioorganic Chemistry*, **2020**, 104, 104279	5.1	10
65	Optimization to development of chitosan decorated polycaprolactone nanoparticles for improved ocular delivery of dorzolamide: In vitro, ex vivo and toxicity assessments. **2020**, 163, 2392-2404		35
64	Carbonic anhydrase modulation of emotional memory. Implications for the treatment of cognitive disorders. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2020**, 35, 1206-1214	5.6	31
63	Carbonic anhydrase from extremophiles and their potential use in biotechnological applications. **2020**, 295-306		1
62	An update on drug interaction considerations in the therapeutic use of carbonic anhydrase inhibitors. **2020**, 16, 297-307		22
61	5-[2-(N-(Substituted phenyl)acetamide)]amino-1,3,4-thiadiazole-2-sulfonamides as Selective Carbonic Anhydrase II Inhibitors with Neuroprotective Effects. **2020**, 15, 705-715		3
60	N-Quinary heterocycle-4-sulphamoylbenzamides exert anti-hypoxic effects as dual inhibitors of carbonic anhydrases I/II. *Bioorganic Chemistry*, **2020**, 100, 103931	5.1	6
59	An Overview of Coumarin as a Versatile and Readily Accessible Scaffold with Broad-Ranging Biological Activities. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	66
58	Bioorganometallic derivatives of 4-hydrazino-benzenesulphonamide as carbonic anhydrase inhibitors: synthesis, characterisation and biological evaluation. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2020**, 35, 622-628	5.6	6
57	Coumarins from as inhibitors of the tumour-associated carbonic anhydrases IX and XII: isolation, biological studies and in silico evaluation. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2020**, 35, 539-548	5.6	14
56	Coordination behavior of dinuclear silver complex of sulfamethoxazole with solvent molecule having static rotational disorder: Spectroscopic characterization, crystal structure, Hirshfeld surface and antimicrobial activity. **2021**, 1228, 129777		8
55	Unconventional approaches for the introduction of sulfur-based functional groups. **2021**, 19, 6926-6957		1

54	Chemical Constituents and Carbonic Anhydrase II Activity of Essential Oil of Acridocarpus orientalis A. Juss. in Comparison With Stem and Leaves. *Journal of Essential Oil-bearing Plants: JEOP*, **2021**, 24, 68-74	1.7	4
53	Synthesis, spectroscopic characterizations, carbonic anhydrase II inhibitory activity, anticancer activity and docking studies of new Schiff bases of sulfa drugs. **2021**, 1223, 128911		15
52	Tetrahydroquinazole-based secondary sulphonamides as carbonic anhydrase inhibitors: synthesis, biological evaluation against isoforms I, II, IV, and IX, and computational studies. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2021**, 36, 1874-1883	5.6	2
51	Inhibitory Evaluation and Molecular Docking Analysis of Benzenesulfonamides on Carbonic Anhydrase II. *Russian Journal of Bioorganic Chemistry*, **2021**, 47, 261-269	1	0
50	Biological evaluation, radiosensitizing activity and structural insights of novel halogenated quinazoline-sulfonamide conjugates as selective human carbonic anhydrases IX/XII inhibitors. *Bioorganic Chemistry*, **2021**, 107, 104618	5.1	3
49	Design and synthesis of benzenesulfonamide-linked imidazo[2,1-b][1,3,4]thiadiazole derivatives as carbonic anhydrase I and II inhibitors. *Archiv Der Pharmazie*, **2021**, 354, e2100028	4.3	2
48	Discovery of Potent Carbonic Anhydrase Inhibitors as Effective Anticonvulsant Agents: Drug Design, Synthesis, and In Vitro and In Vivo Investigations. *Journal of Medicinal Chemistry*, **2021**, 64, 3100-3114	8.3	10
47	Advances in the discovery of novel agents for the treatment of glaucoma. *Expert Opinion on Drug Discovery*, **2021**, 16, 1209-1225	6.2	8
46	Emerging role of carbonic anhydrase inhibitors. *Clinical Science*, **2021**, 135, 1233-1249	6.5	41
45	Chromene-Containing Aromatic Sulfonamides with Carbonic Anhydrase Inhibitory Properties. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	1
44	Inhibitors of CA IX Enzyme Based on Polyhedral Boron Compounds. *ChemBioChem*, **2021**, 22, 2741-2761	3.8	11
43	Recent Updates on the Synthesis of Bioactive Quinoxaline-Containing Sulfonamides. *Applied Sciences (Switzerland)*, **2021**, 11, 5702	2.6	5
42	Synthesis and biological evaluation of new pyrazolebenzene-sulphonamides as potential anticancer agents and hCA I and II inhibitors. *Turkish Journal of Chemistry*, **2021**, 45, 528-539	1	1
41	Synthesis and biological evaluation of some 1-naphthol derivatives as antioxidants, acetylcholinesterase, and carbonic anhydrase inhibitors. *Archiv Der Pharmazie*, **2021**, 354, e2100113	4.3	6
40	Inhibition studies on carbonic anhydrase isoforms I, II, IV and IX with N-arylsubstituted secondary sulfonamides featuring a bicyclic tetrahydroindazole scaffold. *European Journal of Medicinal Chemistry*, **2021**, 220, 113490	6.8	5
39	Binding site comparison for coumarin inhibitors and amine/amino acid activators of human carbonic anhydrases. *European Journal of Medicinal Chemistry*, **2021**, 226, 113875	6.8	7
38	Cyclodextrin-based formulation of carbonic anhydrase inhibitors for ocular delivery - A review. *International Journal of Pharmaceutics*, **2021**, 606, 120955	6.5	7
37	Activation of carbonic anhydrase isoforms involved in modulation of emotional memory and cognitive disorders with histamine agonists, antagonists and derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2021**, 36, 719-726	5.6	8

36	Carbonic Anhydrases: An Overview. **2015**, 3-13		11
35	Investigation of inhibitory properties of some hydrazone compounds on hCA I, hCA II and AChE enzymes. *Bioorganic Chemistry*, **2019**, 86, 316-321	5.1	80
34	State of the Art on Carbonic Anhydrase Modulators for Biomedical Purposes. *Current Medicinal Chemistry*, **2019**, 26, 2558-2573	4.3	9
33	Next-generation dithiocarbamate carbonic anhydrase inhibitors. **2014**, 114-130		
32	Chemical Composition and Biological Activities of Essential Oil from Aerial Parts of Frankenia pulverulenta L. and Boerhavia elegans Choisy from Northern Oman. *Journal of Essential Oil-bearing Plants: JEOP*, 1-12	1.7	2
31	Carbonic Anhydrase Inhibitors in the Treatment of Glaucoma. Review. Part II. *Oftalmologiya*, **2020**, 17, 676-682	0.3	
30	C Vitamininin Karbonik Anhidraz □oenzimleri (hCA I ve II) □erine Etkisi. *Afyon Kocatepe University Journal of Sciences and Engineering*, **2021**, 21, 1038-1045	0.1	
29	New Carbonic Anhydrase-II Inhibitors from Marine Macro Brown Alga Supported by In Silico Studies. *Molecules*, **2021**, 26,	4.8	1
28	The Carbonic Anhydrases in Health and Disease. *Progress in Drug Research Fortschritte Der Arzneimittelforschung Progres Des Recherches Pharmaceutiques*, **2021**, 1-12		
27	Commikuanoids A-C: New cycloartane triterpenoids with exploration of carbonic anhydrase-II inhibition from the resins of Commiphora kua by in vitro and in silico molecular docking.. *F□toterap□* , **2022**, 157, 105125	3.2	1
26	Formulation, optimization and evaluation of vitamin E TPGS emulsified dorzolamide solid lipid nanoparticles. *Journal of Drug Delivery Science and Technology*, **2022**, 68, 103062	4.5	3
25	In vitro and In silico Interactions of Antiulcer, Glucocorticoids and Urological Drugs on Human Carbonic Anhydrase I and II isozymes.. *Biopharmaceutics and Drug Disposition*, **2022**,	1.7	0
24	2-(2-Hydroxyethyl)piperazine derivatives as potent human carbonic anhydrase inhibitors: Synthesis, enzyme inhibition, computational studies and antiglaucoma activity.. *European Journal of Medicinal Chemistry*, **2022**, 228, 114026	6.8	
23	Design, synthesis and human carbonic anhydrase I, II, IX and XII inhibitory properties of 1,3-thiazole sulfonamides.. *Bioorganic and Medicinal Chemistry Letters*, **2022**, 59, 128581	2.9	1
22	Some phenolic natural compounds as carbonic anhydrase inhibitors: An in vitro and in silico study.. *Archiv Der Pharmazie*, **2022**, e2100476	4.3	2
21	Direct sulfonylamidation of unfunctionalized arenes in C-H activation manner: a simple protocol to access primary sulfonamides. *Tetrahedron Letters*, **2022**, 153781	2	0
20	Carbonic Anhydrase Activators for Neurodegeneration: An Overview.. *Molecules*, **2022**, 27,	4.8	1
19	Image_1.tif. **2019**,		

18	Image_2.tif. **2019**,		
17	Table_1.docx. **2019**,		
16	Table_2.docx. **2019**,		
15	Table_3.docx. **2019**,		
14	Effect of Orogastric Acetazolamide on Optic Nerve Sheath Diameter in Patients Undergoing Laparoscopic Donor Nephrectomies: A Randomized, Double-Blind Trial.. *Cureus*, **2022**, 14, e24454	1.2	
13	The production and biochemical characterization of β-carbonic anhydrase from Lactobacillus rhamnosus GG. *Applied Microbiology and Biotechnology*,	5.7	
12	Recent Advances on Biological Active Sulfonamide based Hybrid Compounds Part A: Two-Component Sulfonamide Hybrids.. *Current Medicinal Chemistry*, **2022**, 29,	4.3	0
11	Enaminone-based carboxylic acids as novel non-classical carbonic anhydrases inhibitors: design, synthesis and in vitro biological assessment. **2022**, 37, 2256-2264		1
10	Development of benzene and benzothiazole-sulfonamide analogues as selective inhibitors of the tumor-associated carbonic anhydrase IX. **2022**, 243, 114793		1
9	Selective and low-cost triterpene urea and amide derivatives of high cytotoxicity and selectivity. **2022**, 100610		0
8	Synthesis , in vitro and in silico Biological Studies of Sulfonamide Chalcones as Esterase Inhibitors. **2022**, 7,		0
7	New isoxazolidinyl-based N-alkylethanolamines as new activators of human brain carbonic anhydrases. **2023**, 38,		0
6	Half-Sandwich Ruthenium Arene Complexes Bearing Clinically Approved Drugs as Ligands: The Importance of Metal–Drug Synergism in Metallodrug Design. **2023**, 20, 1453-1479		1
5	Development of novel anilinoquinazoline-based carboxylic acids as non-classical carbonic anhydrase IX and XII inhibitors. **2023**, 38,		0
4	The Multifarious Effects of Various Glaucoma Pharmacotherapy on Corneal Endothelium: A Narrative Review.		0
3	Recent advances in triazole-benzenesulfonamide hybrids and their biological activities. **2023**, 32, 777-801		0
2	New Sulfur-Containing Diketopiperazine from Marine-Derived Bacteria Streptomyces rochei sp. 81 with Potent Carbonic Anhydrase II Inhibition.		0
1	Advances in the discovery of novel agents for the treatment of glaucoma: The role of nitric oxide donors. **2023**, 305-317		0