Andrea Scozzafava

List of Publications by Citations

640 papers	37,516 citations	102 h-index	155 g-index
690 ext. papers	39,297 ext. citations	4.7 avg, IF	7.23 L-index

#	Paper	IF	Citations
640	Carbonic anhydrase inhibitors. *Medicinal Research Reviews*, **2003**, 23, 146-89	14.4	1062
639	Targeting tumor hypoxia: suppression of breast tumor growth and metastasis by novel carbonic anhydrase IX inhibitors. *Cancer Research*, **2011**, 71, 3364-76	10.1	563
638	Anticancer and antiviral sulfonamides. *Current Medicinal Chemistry*, **2003**, 10, 925-53	4.3	557
637	Hypoxia activates the capacity of tumor-associated carbonic anhydrase IX to acidify extracellular pH. *FEBS Letters*, **2004**, 577, 439-45	3.8	556
636	Carbonic anhydrases as targets for medicinal chemistry. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 4336-50	3.4	462
635	Carbonic anhydrase inhibitors and their therapeutic potential. *Expert Opinion on Therapeutic Patents*, **2000**, 10, 575-600	6.8	432
634	Non-zinc mediated inhibition of carbonic anhydrases: coumarins are a new class of suicide inhibitors. *Journal of the American Chemical Society*, **2009**, 131, 3057-62	16.4	400
633	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, 16233-8	11.5	399
632	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, 1896-902	8.3	391
631	Unexpected nanomolar inhibition of carbonic anhydrase by COX-2-selective celecoxib: new pharmacological opportunities due to related binding site recognition. *Journal of Medicinal Chemistry*, **2004**, 47, 550-7	8.3	381
630	Protease inhibitors of the sulfonamide type: anticancer, antiinflammatory, and antiviral agents. *Medicinal Research Reviews*, **2003**, 23, 535-58	14.4	320
629	Deciphering the mechanism of carbonic anhydrase inhibition with coumarins and thiocoumarins. *Journal of Medicinal Chemistry*, **2010**, 53, 335-44	8.3	311
628	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, 2641-50	8.3	250
627	Carbonic anhydrase activators: X-ray crystallographic and spectroscopic investigations for the interaction of isozymes I and II with histamine. *Biochemistry*, **1997**, 36, 10384-92	3.2	246
626	Carbonic anhydrase inhibitors: E7070, a sulfonamide anticancer agent, potently inhibits cytosolic isozymes I and II, and transmembrane, tumor-associated isozyme IX. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 217-23	2.9	235
625	Antiglaucoma carbonic anhydrase inhibitors: a patent review. *Expert Opinion on Therapeutic Patents* , **2013**, 23, 705-16	6.8	232
624	Applications of carbonic anhydrase inhibitors and activators in therapy. *Expert Opinion on Therapeutic Patents*, **2002**, 12, 217-242	6.8	228

623	Carbonic anhydrase inhibitors: sulfonamides as antitumor agents?. *Bioorganic and Medicinal Chemistry*, **2001**, 9, 703-14	3.4	225
622	Biochemical characterization of CA IX, one of the most active carbonic anhydrase isozymes. *Journal of Biological Chemistry*, **2008**, 283, 27799-27809	5.4	224
621	Antiobesity carbonic anhydrase inhibitors: a literature and patent review. *Expert Opinion on Therapeutic Patents*, **2013**, 23, 725-35	6.8	213
620	Carbonic anhydrase inhibitors: SAR and X-ray crystallographic study for the interaction of sugar sulfamates/sulfamides with isozymes I, II and IV. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 841-5	2.9	209
619	Sulfonamides and sulfonylated derivatives as anticancer agents. *Current Cancer Drug Targets*, **2002**, 2, 55-75	2.8	209
618	Carbonic anhydrase and matrix metalloproteinase inhibitors: sulfonylated 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. *Journal of Medicinal Chemistry*, **2000**, 43, 3677-87	8.3	202
617	Glycosyl coumarin carbonic anhydrase IX and XII inhibitors strongly attenuate the growth of primary breast tumors. *Journal of Medicinal Chemistry*, **2011**, 54, 8271-7	8.3	201
616	Carbonic anhydrase inhibitors. Inhibition of the transmembrane isozyme XII with sulfonamides-a new target for the design of antitumor and antiglaucoma drugs?. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 963-9	2.9	199
615	Highly active antiretroviral therapy: current state of the art, new agents and their pharmacological interactions useful for improving therapeutic outcome. *Current Pharmaceutical Design*, **2005**, 11, 1805-43	3.3	199
614	Dithiocarbamates strongly inhibit carbonic anhydrases and show antiglaucoma action in vivo. *Journal of Medicinal Chemistry*, **2012**, 55, 1721-30	8.3	195
613	Carbonic anhydrase IX: a new druggable target for the design of antitumor agents. *Medicinal Research Reviews*, **2008**, 28, 445-63	14.4	192
612	Carbonic anhydrase inhibitors. Design of fluorescent sulfonamides as probes of tumor-associated carbonic anhydrase IX that inhibit isozyme IX-mediated acidification of hypoxic tumors. *Journal of Medicinal Chemistry*, **2005**, 48, 4834-41	8.3	192
611	Characterization of CA XIII, a novel member of the carbonic anhydrase isozyme family. *Journal of Biological Chemistry*, **2004**, 279, 2719-27	5.4	187
610	Carbonic anhydrase inhibitors: X-ray and molecular modeling study for the interaction of a fluorescent antitumor sulfonamide with isozyme II and IX. *Journal of the American Chemical Society*, **2006**, 128, 8329-35	16.4	186
609	Polyamines inhibit carbonic anhydrases by anchoring to the zinc-coordinated water molecule. *Journal of Medicinal Chemistry*, **2010**, 53, 5511-22	8.3	184
608	Selective hydrophobic pocket binding observed within the carbonic anhydrase II active site accommodate different 4-substituted-ureido-benzenesulfonamides and correlate to inhibitor potency. *Chemical Communications*, **2010**, 46, 8371-3	5.8	180
607	Carbonic anhydrase inhibitors: inhibition of the tumor-associated isozyme IX with aromatic and heterocyclic sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 1005-9	2.9	176
606	Sulfocoumarins (1,2-benzoxathiine-2,2-dioxides): a class of potent and isoform-selective inhibitors of tumor-associated carbonic anhydrases. *Journal of Medicinal Chemistry*, **2013**, 56, 293-300	8.3	174

605	Imaging of CA IX with fluorescent labelled sulfonamides distinguishes hypoxic and (re)-oxygenated cells in a xenograft tumour model. *Radiotherapy and Oncology*, **2009**, 92, 423-8	5.3	173
604	Carbonic anhydrase inhibitors: interactions of phenols with the 12 catalytically active mammalian isoforms (CA I-XIV). *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 1583-7	2.9	170
603	Sulfamates and their therapeutic potential. *Medicinal Research Reviews*, **2005**, 25, 186-228	14.4	169
602	Sulfonamides: a patent review (2008 - 2012). *Expert Opinion on Therapeutic Patents*, **2012**, 22, 747-58	6.8	167
601	Carbonic Anhydrase Inhibitors. *Current Medicinal Chemistry Immunology, Endocrine & Metabolic Agents*, **2001**, 1, 61-97		167
600	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, 2315-20	2.9	166
599	Carbonic anhydrase inhibitors. The mitochondrial isozyme VB as a new target for sulfonamide and sulfamate inhibitors. *Journal of Medicinal Chemistry*, **2005**, 48, 7860-6	8.3	161
598	Taking advantage of tumor cell adaptations to hypoxia for developing new tumor markers and treatment strategies. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2009**, 24 Suppl 1, 1-39	5.6	153
597	Therapeutic potential of sulfamides as enzyme inhibitors. *Medicinal Research Reviews*, **2006**, 26, 767-92	14.4	153
596	Carbonic anhydrase inhibitors: 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, 5721-7	8.3	150
595	Dithiocarbamates: a new class of carbonic anhydrase inhibitors. Crystallographic and kinetic investigations. *Chemical Communications*, **2012**, 48, 1868-70	5.8	149
594	Modulation of carbonic anhydrase activity and its applications in therapy. *Expert Opinion on Therapeutic Patents*, **2004**, 14, 667-702	6.8	148
593	Carbonic anhydrase inhibitors: synthesis of water-soluble, topically effective intraocular pressure lowering aromatic/heterocyclic sulfonamides containing 8-quinoline-sulfonyl moieties: is the tail more important than the ring?. *Bioorganic and Medicinal Chemistry*, **1999**, 7, 2397-406	3.4	148
592	Carbonic anhydrase inhibitors: the beta-carbonic anhydrase from Helicobacter pylori is a new target for sulfonamide and sulfamate inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 3585-94	2.9	146
591	Carbonic anhydrase inhibitors: synthesis of water-soluble, aminoacyl/dipeptidyl sulfonamides possessing long-lasting intraocular pressure-lowering properties via the topical route. *Journal of Medicinal Chemistry*, **1999**, 42, 3690-700	8.3	146
590	Carbonic anhydrase inhibitors. Part 37. Novel classes of isozyme I and II inhibitors and their mechanism of action. Kinetic and spectroscopic investigations on native and cobalt-substituted enzymes. *European Journal of Medicinal Chemistry*, **1996**, 31, 1001-1010	6.8	146
589	Carbonic anhydrase inhibitors. Design of selective, membrane-impermeant inhibitors targeting the human tumor-associated isozyme IX. *Journal of Medicinal Chemistry*, **2004**, 47, 2337-47	8.3	145
588	Specific inhibition of carbonic anhydrase IX activity enhances the in vivo therapeutic effect of tumor irradiation. *Radiotherapy and Oncology*, **2011**, 99, 424-31	5.3	144

587	Nonaromatic sulfonamide group as an ideal anchor for potent human carbonic anhydrase inhibitors: role of hydrogen-bonding networks in ligand binding and drug design. *Journal of Medicinal Chemistry*, **2002**, 45, 3583-7	8.3	144
586	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. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 7255-8	2.9	143
585	Carbonic anhydrase inhibitors and activators and their use in therapy. *Expert Opinion on Therapeutic Patents*, **2006**, 16, 1627-1664	6.8	143
584	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. *Journal of Medicinal Chemistry*, **2006**, 49, 7024-31	8.3	142
583	Carbonic anhydrase inhibitors: the first selective, membrane-impermeant inhibitors targeting the tumor-associated isozyme IX. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 869-73	2.9	140
582	Carbonic anhydrase inhibitors - Part 49: Synthesis of substituted ureido and thioureido derivatives of aromatic/heterocyclic sulfonamides with increased affinities for isozyme I. *European Journal of Medicinal Chemistry*, **1998**, 33, 83-93	6.8	139
581	Imaging the hypoxia surrogate marker CA IX requires expression and catalytic activity for binding fluorescent sulfonamide inhibitors. *Radiotherapy and Oncology*, **2007**, 83, 367-73	5.3	138
580	Carbonic anhydrase inhibitors: synthesis of membrane-impermeant low molecular weight sulfonamides possessing in vivo selectivity for the membrane-bound versus cytosolic isozymes. *Journal of Medicinal Chemistry*, **2000**, 43, 292-300	8.3	138
579	Carbonic anhydrase inhibitors: DNA cloning and inhibition studies of the alpha-carbonic anhydrase from Helicobacter pylori, a new target for developing sulfonamide and sulfamate gastric drugs. *Journal of Medicinal Chemistry*, **2006**, 49, 2117-26	8.3	137
578	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. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 231-4	2.9	137
577	Carbonic anhydrase inhibitors: water-soluble 4-sulfamoylphenylthioureas as topical intraocular pressure-lowering agents with long-lasting effects. *Journal of Medicinal Chemistry*, **2000**, 43, 4884-92	8.3	137
576	Carbonic anhydrase inhibitors. Antioxidant polyphenols effectively inhibit mammalian isoforms I-XV. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 5050-3	2.9	135
575	Metalloantibiotics: synthesis and antibacterial activity of cobalt(II), copper(II), nickel(II) and zinc(II) complexes of kefzol. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2004**, 19, 79-84	5.6	135
574	Carbonic anhydrase inhibitors. Inhibition of mitochondrial isozyme V with aromatic and heterocyclic sulfonamides. *Journal of Medicinal Chemistry*, **2004**, 47, 1272-9	8.3	135
573	Rosmarinic acid inhibits some metabolic enzymes including glutathione S-transferase, lactoperoxidase, acetylcholinesterase, butyrylcholinesterase and carbonic anhydrase isoenzymes. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 1698-702	5.6	134
572	Carbonic anhydrase inhibitors. Inhibition of cytosolic isozymes I and II and transmembrane, tumor-associated isozyme IX with sulfamates including EMATE also acting as steroid sulfatase inhibitors. *Journal of Medicinal Chemistry*, **2003**, 46, 2197-204	8.3	134
571	Sulfonamides and their isosters as carbonic anhydrase inhibitors. *Future Medicinal Chemistry*, **2014**, 6, 1149-65	4.1	133
570	Carbonic anhydrase inhibitors. Inhibition of tumor-associated isozyme IX by halogenosulfanilamide and halogenophenylaminobenzolamide derivatives. *Journal of Medicinal Chemistry*, **2003**, 46, 2187-96	8.3	133

569	Proton NOE studies on dicopper(II) dicobalt(II) superoxide dismutase. *Inorganic Chemistry*, **1989**, 28, 4650-4656	5.1	133
568	Carbonic anhydrase inhibitors Part 29 1: Interaction of isozymes I, II and IV with benzolamide-like derivatives. *European Journal of Medicinal Chemistry*, **1998**, 33, 739-751	6.8	130
567	Metal binding and antibacterial activity of ciprofloxacin complexes. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2005**, 20, 303-7	5.6	130
566	Zinc complexes of benzothiazole-derived Schiff bases with antibacterial activity. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2003**, 18, 259-63	5.6	130
565	Carbonic anhydrase inhibitors: anticonvulsant sulfonamides incorporating valproyl and other lipophilic moieties. *Journal of Medicinal Chemistry*, **2002**, 45, 312-20	8.3	129
564	Carbonic anhydrase inhibitors: novel sulfonamides incorporating 1,3,5-triazine moieties as inhibitors of the cytosolic and tumour-associated carbonic anhydrase isozymes I, II and IX. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 3102-8	2.9	129
563	Characterization of cobalt(II) bovine carbonic anhydrase and of its derivatives. *Journal of the American Chemical Society*, **1978**, 100, 4873-4877	16.4	129
562	Bacterial protease inhibitors. *Medicinal Research Reviews*, **2002**, 22, 329-72	14.4	128
561	Carbonic anhydrase inhibitors. Inhibition of the human cytosolic isozyme VII with aromatic and heterocyclic sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 971-6	2.9	128
560	Carbonic anhydrase inhibitors: perfluoroalkyl/aryl-substituted derivatives of aromatic/heterocyclic sulfonamides as topical intraocular pressure-lowering agents with prolonged duration of action. *Journal of Medicinal Chemistry*, **2000**, 43, 4542-51	8.3	128
559	Carbonic anhydrase inhibitors. A general approach for the preparation of water-soluble sulfonamides incorporating polyamino-polycarboxylate tails and of their metal complexes possessing long-lasting, topical intraocular pressure-lowering properties. *Journal of Medicinal Chemistry*, **2002**, 45, 1466-76	8.3	127
558	ESI mass spectrometry and X-ray diffraction studies of adducts between anticancer platinum drugs and hen egg white lysozyme. *Chemical Communications*, **2007**, 156-8	5.8	126
557	Carbonic anhydrase inhibitors: inhibition of the transmembrane isozyme XIV with sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 3828-33	2.9	125
556	Antimetastatic effect of sulfamate carbonic anhydrase IX inhibitors in breast carcinoma xenografts. *Journal of Medicinal Chemistry*, **2012**, 55, 5591-600	8.3	123
555	Carbonic anhydrase activators. Activation of isozymes I, II, IV, VA, VII, and XIV with l- and d-histidine and crystallographic analysis of their adducts with isoform II: engineering proton-transfer processes within the active site of an enzyme. *Chemistry - A European Journal*, **2006**, 12, 7057-66	4.8	122
554	Carbonic anhydrase inhibitors Part 52. Metal complexes of heterocyclic sulfonamides: A new class of strong topical intraocular pressure-lowering agents in rabbits. *European Journal of Medicinal Chemistry*, **1998**, 33, 247-254	6.8	120
553	Carbonic anhydrase IX from cancer-associated fibroblasts drives epithelial-mesenchymal transition in prostate carcinoma cells. *Cell Cycle*, **2013**, 12, 1791-801	4.7	119
552	Designing of Novel Carbonic Anhydrase Inhibitors and Activators. *Current Medicinal Chemistry Cardiovascular and Hematological Agents*, **2004**, 2, 49-68		119

551	Carbonic anhydrase activators. Activation of isoforms I, II, IV, VA, VII, and XIV with L- and D-phenylalanine and crystallographic analysis of their adducts with isozyme II: stereospecific recognition within the active site of an enzyme and its consequences for the drug design. *Journal of Medicinal Chemistry*, **2006**, 49, 3019-27	8.3	116
550	COX-2 selective inhibitors, carbonic anhydrase inhibition and anticancer properties of sulfonamides belonging to this class of pharmacological agents. *Mini-Reviews in Medicinal Chemistry*, **2004**, 4, 625-32	3.2	116
549	Inhibitors of HIV-1 protease: current state of the art 10 years after their introduction. From antiretroviral drugs to antifungal, antibacterial and antitumor agents based on aspartic protease inhibitors. *Current Medicinal Chemistry*, **2007**, 14, 2734-48	4.3	115
548	Unsymmetrical 1,1′-disubstituted ferrocenes: synthesis of Co(ii), Cu(ii), Ni(ii) and Zn(ii) chelates of ferrocenyl -1-thiadiazolo-1′-tetrazole, -1-thiadiazolo-1′-triazole and -1-tetrazolo-1′-triazole with antimicrobial properties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 261-6	5.6	115
547	Carbonic anhydrase inhibitors: inhibition of mammalian isoforms I-XIV with a series of substituted phenols including paracetamol and salicylic acid. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 7424-8	3.4	114
546	Carbonic anhydrase: An insight into the zinc binding site and into the active cavity through metal substitution **1982**, 45-92		114
545	The coumarin-binding site in carbonic anhydrase accommodates structurally diverse inhibitors: the antiepileptic lacosamide as an example and lead molecule for novel classes of carbonic anhydrase inhibitors. *Journal of Medicinal Chemistry*, **2010**, 53, 850-4	8.3	110
544	Carbonic anhydrase inhibitors. Inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, IX, and XII with Schiff's bases incorporating chromone and aromatic sulfonamide moieties, and their zinc complexes. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 3096-101	2.9	106
543	Carbonic anhydrase inhibitors: synthesis of sulfonamides incorporating dtpa tails and of their zinc complexes with powerful topical antiglaucoma properties. *Bioorganic and Medicinal Chemistry Letters*, **2001**, 11, 575-82	2.9	106
542	Carbonic anhydrase inhibitors: guaiacol and catechol derivatives effectively inhibit certain human carbonic anhydrase isoenzymes (hCA I, II, IX and XII). *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 586-91	5.6	105
541	Novel therapies for glaucoma: a patent review 2007 - 2011. *Expert Opinion on Therapeutic Patents*, **2012**, 22, 79-88	6.8	104
540	Proton NMR spectroscopy and the electronic structure of the high potential iron-sulfur protein from Chromatium vinosum. *Journal of the American Chemical Society*, **1991**, 113, 1237-1245	16.4	104
539	A class of sulfonamide carbonic anhydrase inhibitors with neuropathic pain modulating effects. *Bioorganic and Medicinal Chemistry*, **2015**, 23, 1828-40	3.4	103
538	The effect of caffeic acid phenethyl ester (CAPE) on metabolic enzymes including acetylcholinesterase, butyrylcholinesterase, glutathione S-transferase, lactoperoxidase, and carbonic anhydrase isoenzymes I, II, IX, and XII. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 1095-101	5.6	101
537	Novel coumarins and 2-thioxo-coumarins as inhibitors of the tumor-associated carbonic anhydrases IX and XII. *Bioorganic and Medicinal Chemistry*, **2012**, 20, 2266-73	3.4	101
536	Single-crystal ESR spectra of copper(II) complexes with geometries intermediate between a square pyramid and a trigonal bipyramid. *Inorganic Chemistry*, **1978**, 17, 3194-3197	5.1	100
535	Carbonic anhydrase inhibitor coated gold nanoparticles selectively inhibit the tumor-associated isoform IX over the cytosolic isozymes I and II. *Journal of the American Chemical Society*, **2008**, 130, 16130-1	16.4	99
534	Bacterial proteases: current therapeutic use and future prospects for the development of new antibiotics. *Expert Opinion on Therapeutic Patents*, **2001**, 11, 221-259	6.8	99

533	Carbonic anhydrase inhibitors. Cloning, characterization, and inhibition studies of a new beta-carbonic anhydrase from Mycobacterium tuberculosis. *Journal of Medicinal Chemistry*, **2009**, 52, 3116-20	8.3	98
532	Cloning, characterization, and inhibition studies of a beta-carbonic anhydrase from Brucella suis. *Journal of Medicinal Chemistry*, **2010**, 53, 2277-85	8.3	97
531	An □carbonic anhydrase from the thermophilic bacterium Sulphurihydrogenibium azorense is the fastest enzyme known for the CO2 hydration reaction. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 1465-9	3.4	96
530	Design and Synthesis of Novel Nonsteroidal Anti-Inflammatory Drugs and Carbonic Anhydrase Inhibitors Hybrids (NSAIDs-CAIs) for the Treatment of Rheumatoid Arthritis. *Journal of Medicinal Chemistry*, **2017**, 60, 1159-1170	8.3	94
529	Carbonic anhydrase inhibitors: Hypoxia-activatable sulfonamides incorporating disulfide bonds that target the tumor-associated isoform IX. *Journal of Medicinal Chemistry*, **2006**, 49, 5544-51	8.3	93
528	DNA cloning, characterization, and inhibition studies of an □carbonic anhydrase from the pathogenic bacterium Vibrio cholerae. *Journal of Medicinal Chemistry*, **2012**, 55, 10742-8	8.3	91
527	Crystal structure of a blue laccase from Lentinus tigrinus: evidences for intermediates in the molecular oxygen reductive splitting by multicopper oxidases. *BMC Structural Biology*, **2007**, 7, 60	2.7	91
526	Carbonic anhydrase activators: X-ray crystal structure of the adduct of human isozyme II with L-histidine as a platform for the design of stronger activators. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 5136-41	2.9	91
525	Crystal structure of human carbonic anhydrase XIII and its complex with the inhibitor acetazolamide. *Proteins: Structure, Function and Bioinformatics*, **2009**, 74, 164-75	4.2	90
524	Carbonic anhydrase inhibitors: cloning, characterization, and inhibition studies of the cytosolic isozyme III with sulfonamides. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 7229-36	3.4	90
523	Carbonic anhydrase inhibitors: inhibition of the beta-class enzymes from the fungal pathogens Candida albicans and Cryptococcus neoformans with simple anions. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 5066-70	2.9	90
522	Carbonic anhydrase inhibitors: synthesis and inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, and IX with sulfonamides incorporating 1,2,4-triazine moieties. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 5427-33	2.9	90
521	Dithiocarbamates are strong inhibitors of the beta-class fungal carbonic anhydrases from Cryptococcus neoformans, Candida albicans and Candida glabrata. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 859-62	2.9	89
520	X-ray structure of the first □extremo-□carbonic anhydrase□a dimeric enzyme from the thermophilic bacterium Sulfurihydrogenibium yellowstonense YO3AOP1. *Acta Crystallographica Section D: Biological Crystallography*, **2013**, 69, 1150-9		89
519	Kinetic and docking studies of phenol-based inhibitors of carbonic anhydrase isoforms I, II, IX and XII evidence a new binding mode within the enzyme active site. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 1381-9	3.4	89
518	Carbonic anhydrase inhibitors: Valdecoxib binds to a different active site region of the human isoform II as compared to the structurally related cyclooxygenase II "selective" inhibitor celecoxib. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 437-42	2.9	89
517	Investigations of the esterase, phosphatase, and sulfatase activities of the cytosolic mammalian carbonic anhydrase isoforms I, II, and XIII with 4-nitrophenyl esters as substrates. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 2267-71	2.9	88
516	Combining the tail and the ring approaches for obtaining potent and isoform-selective carbonic anhydrase inhibitors: solution and X-ray crystallographic studies. *Bioorganic and Medicinal Chemistry* , **2014**, 22, 334-40	3.4	86

515	Carbonic anhydrase inhibitors--Part 94. 1,3,4-thiadiazole-2-sulfonamidederivatives as antitumor agents?. *European Journal of Medicinal Chemistry*, **2000**, 35, 867-74	6.8	86
514	Glaucoma and the applications of carbonic anhydrase inhibitors. *Sub-Cellular Biochemistry*, **2014**, 75, 349-59	5.5	86
513	Biochemical properties of a new β-carbonic anhydrase from the human pathogenic bacterium, Vibrio cholerae. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2014**, 29, 23-7	5.6	85
512	Molecular cloning, characterization, and inhibition studies of the Rv1284 beta-carbonic anhydrase from Mycobacterium tuberculosis with sulfonamides and a sulfamate. *Journal of Medicinal Chemistry*, **2009**, 52, 2226-32	8.3	85
511	Antiviral sulfonamide derivatives. *Mini-Reviews in Medicinal Chemistry*, **2004**, 4, 189-200	3.2	84
510	Crystal structure of the blue multicopper oxidase from the white-rot fungus Trametes trogii complexed with p-toluate. *Inorganica Chimica Acta*, **2008**, 361, 4129-4137	2.7	83
509	Inhibition of the alpha- and beta-carbonic anhydrases from the gastric pathogen Helycobacter pylori with anions. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2013**, 28, 388-91	5.6	82
508	Xanthates and trithiocarbonates strongly inhibit carbonic anhydrases and show antiglaucoma effects in vivo. *Journal of Medicinal Chemistry*, **2013**, 56, 4691-700	8.3	82
507	Sulfonamides incorporating 1,3,5-triazine moieties selectively and potently inhibit carbonic anhydrase transmembrane isoforms IX, XII and XIV over cytosolic isoforms I and II: Solution and X-ray crystallographic studies. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 3105-19	3.4	82
506	Carbonic anhydrase activators: L-Adrenaline plugs the active site entrance of isozyme II, activating better isoforms I, IV, VA, VII, and XIV. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 628-35	2.9	82
505	Carbonic anhydrase inhibitors: aromatic and heterocyclic sulfonamides incorporating adamantyl moieties with strong anticonvulsant activity. *Bioorganic and Medicinal Chemistry*, **2004**, 12, 2717-26	3.4	82
504	Cloning, characterization, and sulfonamide and thiol inhibition studies of an β-carbonic anhydrase from Trypanosoma cruzi, the causative agent of Chagas disease. *Journal of Medicinal Chemistry*, **2013**, 56, 1761-71	8.3	81
503	Carbonic anhydrase inhibitors. DNA cloning, characterization, and inhibition studies of the human secretory isoform VI, a new target for sulfonamide and sulfamate inhibitors. *Journal of Medicinal Chemistry*, **2007**, 50, 381-8	8.3	80
502	Investigation of Cu2Co2SOD and its anion derivatives. Proton NMR and electronic spectra. *Journal of the American Chemical Society*, **1985**, 107, 4391-4396	16.4	80
501	Targeting tumour hypoxia to prevent cancer metastasis. From biology, biosensing and technology to drug development: the METOXIA consortium. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 689-721	5.6	79
500	Carbonic anhydrase inhibitors: inhibition of the beta-class enzyme from the yeast Saccharomyces cerevisiae with sulfonamides and sulfamates. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 1158-63	3.4	78
499	The development of topically acting carbonic anhydrase inhibitors as antiglaucoma agents. *Current Pharmaceutical Design*, **2008**, 14, 649-54	3.3	78
498	Antibacterial Schiff bases of oxalyl-hydrazine/diamide incorporating pyrrolyl and salicylyl moieties and of their zinc(II) complexes. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 1-7	5.6	78

497	Carbonic anhydrase inhibitors. Inhibition of the prokariotic beta and gamma-class enzymes from Archaea with sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 6001-6	2.9	77
496	Discovery of low nanomolar and subnanomolar inhibitors of the mycobacterial beta-carbonic anhydrases Rv1284 and Rv3273. *Journal of Medicinal Chemistry*, **2009**, 52, 4063-7	8.3	75
495	Carbonic anhydrase inhibitors. Inhibition of Plasmodium falciparum carbonic anhydrase with aromatic sulfonamides: towards antimalarials with a novel mechanism of action?. *Bioorganic and Medicinal Chemistry*, **2005**, 13, 483-9	3.4	75
494	The impact of hydroquinone on acetylcholine esterase and certain human carbonic anhydrase isoenzymes (hCA I, II, IX, and XII). *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 941-6	5.6	74
493	Carbonic anhydrase inhibitors. X-ray crystal studies of the carbonic anhydrase II-trithiocarbonate adduct--an inhibitor mimicking the sulfonamide and urea binding to the enzyme. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 474-8	2.9	74
492	Carbonic anhydrase inhibitors. Sulfonamide diuretics revisited--old leads for new applications?. *Organic and Biomolecular Chemistry*, **2008**, 6, 2499-506	3.9	74
491	Carbonic anhydrase activators: the first X-ray crystallographic study of an adduct of isoform I. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 5152-6	2.9	74
490	Carbonic anhydrase inhibitors: inhibition of transmembrane, tumor-associated isozyme IX, and cytosolic isozymes I and II with aliphatic sulfamates. *Journal of Medicinal Chemistry*, **2003**, 46, 5471-7	8.3	74
489	The proteoglycan region of the tumor-associated carbonic anhydrase isoform IX acts as anintrinsic buffer optimizing CO2 hydration at acidic pH values characteristic of solid tumors. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 5825-8	2.9	73
488	Carbonic anhydrase activation and the drug design. *Current Pharmaceutical Design*, **2008**, 14, 708-15	3.3	73
487	Carbonic anhydrase inhibitors: inhibition of cytosolic isozymes I and II with sulfamide derivatives. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 837-40	2.9	73
486	A new β-carbonic anhydrase from Brucella suis, its cloning, characterization, and inhibition with sulfonamides and sulfamates, leading to impaired pathogen growth. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 1172-8	3.4	72
485	Secondary/tertiary benzenesulfonamides with inhibitory action against the cytosolic human carbonic anhydrase isoforms I and II. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2013**, 28, 294-8	5.6	71
484	Anion inhibition studies of an β-carbonic anhydrase from the thermophilic bacterium Sulfurihydrogenibium yellowstonense YO3AOP1. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 5630-4	2.9	71
483	Dihalogenated sulfanilamides and benzolamides are effective inhibitors of the three β-class carbonic anhydrases from Mycobacterium tuberculosis. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2013**, 28, 384-7	5.6	71
482	The β-carbonic anhydrases from Mycobacterium tuberculosis as drug targets. *Current Pharmaceutical Design*, **2010**, 16, 3300-9	3.3	70
481	Carbonic anhydrase inhibitors. Part 53. Synthesis of substituted-pyridinium derivatives of aromatic sulfonamides: The first non-polymeric membrane-impermeable inhibitors with selectivity for isozyme IV. *European Journal of Medicinal Chemistry*, **1998**, 33, 577-594	6.8	70
480	New zinc binding motifs in the design of selective carbonic anhydrase inhibitors. *Mini-Reviews in Medicinal Chemistry*, **2006**, 6, 921-36	3.2	70

479	Arylsulfonyl-N,N-diethyl-dithiocarbamates: a novel class of antitumor agents. *Bioorganic and Medicinal Chemistry Letters*, **2000**, 10, 1887-91	2.9	70
478	The first activation study of a bacterial carbonic anhydrase (CA). The thermostable ECA from Sulfurihydrogenibium yellowstonense YO3AOP1 is highly activated by amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 6324-7	2.9	69
477	Inhibition of the Ecarbonic anhydrase from Streptococcus pneumoniae by inorganic anions and small molecules: Toward innovative drug design of antiinfectives?. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 243-8	3.4	69
476	Design of zinc binding functions for carbonic anhydrase inhibitors. *Current Pharmaceutical Design*, **2008**, 14, 615-21	3.3	69
475	Carbonic anhydrase inhibitors: synthesis and inhibition of cytosolic/membrane-associated carbonic anhydrase isozymes I, II, and IX with sulfonamides incorporating hydrazino moieties. *Journal of Medicinal Chemistry*, **2005**, 48, 2121-5	8.3	69
474	Carbonic anhydrase inhibitors: the first QSAR study on inhibition of tumor-associated isoenzyme IX with aromatic and heterocyclic sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 3283-90	2.9	69
473	Inhibition of the Eclass carbonic anhydrases from Mycobacterium tuberculosis with carboxylic acids. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2013**, 28, 392-6	5.6	68
472	Carbonic anhydrase activators: design of high affinity isozymes I, II, and IV activators, incorporating tri-/tetrasubstituted-pyridinium-azole moieties. *Journal of Medicinal Chemistry*, **2002**, 45, 504-10	8.3	68
471	Secondary and tertiary sulfonamides: a patent review (2008 - 2012). *Expert Opinion on Therapeutic Patents*, **2013**, 23, 203-13	6.8	67
470	Carbonic anhydrase inhibitors. The X-ray crystal structure of human isoform II in adduct with an adamantyl analogue of acetazolamide resides in a less utilized binding pocket than most hydrophobic inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 4376-81	2.9	66
469	Fungal laccase, cellobiose dehydrogenase, and chemical mediators: combined actions for the decolorization of different classes of textile dyes. *Bioresource Technology*, **2008**, 99, 7003-10	11	66
468	Anticonvulsant 4-aminobenzenesulfonamide derivatives with branched-alkylamide moieties: X-ray crystallography and inhibition studies of human carbonic anhydrase isoforms I, II, VII, and XIV. *Journal of Medicinal Chemistry*, **2011**, 54, 3977-81	8.3	65
467	The sulfamide motif in the design of enzyme inhibitors. *Expert Opinion on Therapeutic Patents*, **2006** , 16, 27-47	6.8	65
466	The protein tyrosine kinase inhibitors imatinib and nilotinib strongly inhibit several mammalian alpha-carbonic anhydrase isoforms. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 4102-6	2.9	64
465	Carbonic anhydrase inhibitors: N-(p-sulfamoylphenyl)-alpha-D-glycopyranosylamines as topically acting antiglaucoma agents in hypertensive rabbits. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 225-9	2.9	64
464	Carbonic anhydrase inhibitors. Inhibition of the cytosolic and tumor-associated carbonic anhydrase isozymes I, II, and IX with a series of 1,3,4-thiadiazole- and 1,2,4-triazole-thiols. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 2347-52	2.9	64
463	Inhibition studies with anions and small molecules of two novel Ecarbonic anhydrases from the bacterial pathogen Salmonella enterica serovar Typhimurium. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 3591-5	2.9	63
462	Thioxocoumarins Show an Alternative Carbonic Anhydrase Inhibition Mechanism Compared to Coumarins. *Journal of Medicinal Chemistry*, **2016**, 59, 462-73	8.3	62

461	Biochemical characterization of the β-carbonic anhydrase from the oral pathogen Porphyromonas gingivalis, PgiCA. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2014**, 29, 532-7	5.6	62
460	Polypharmacology of sulfonamides: pazopanib, a multitargeted receptor tyrosine kinase inhibitor in clinical use, potently inhibits several mammalian carbonic anhydrases. *Chemical Communications*, **2012**, 48, 8177-9	5.8	62
459	7-Substituted-sulfocoumarins are isoform-selective, potent carbonic anhydrase II inhibitors. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 4502-10	3.4	62
458	Which carbonic anhydrases are targeted by the antiepileptic sulfonamides and sulfamates?. *Chemical Biology and Drug Design*, **2009**, 74, 317-21	2.9	62
457	Novel aromatic/heterocyclic sulfonamides and their metal complexes as inhibitors of carbonic anhydrase isozymes I, II and IV. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1997**, 12, 37-51		62
456	Carbonic anhydrase inhibitors: X-ray crystallographic structure of the adduct of human isozyme II with the antipsychotic drug sulpiride. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 337-41	2.9	62
455	Antibacterial Co(II), Cu(II), Ni(II) and Zn(II) complexes of thiadiazole derived furanyl, thiophenyl and pyrrolyl Schiff bases. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 117-22	5.6	61
454	Carbonic anhydrase inhibitors: sulfonamides incorporating furan-, thiophene- and pyrrole-carboxamido groups possess strong topical intraocular pressure lowering properties as aqueous suspensions. *Bioorganic and Medicinal Chemistry*, **2000**, 8, 2145-55	3.4	61
453	Proton NMR spectra of oxidized high-potential iron-sulfur protein (HiPIP) from Rhodocyclus gelatinosus. A model for oxidized HiPIPs. *Inorganic Chemistry*, **1991**, 30, 4517-4524	5.1	61
452	The extremo-β-carbonic anhydrase from the thermophilic bacterium Sulfurihydrogenibium azorense is highly inhibited by sulfonamides. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 4521-5	3.4	60
451	Anion inhibition studies of the fastest carbonic anhydrase (CA) known, the extremo-CA from the bacterium Sulfurihydrogenibium azorense. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 7142-5	2.9	60
450	Carbonic anhydrase activators: kinetic and X-ray crystallographic study for the interaction of D- and L-tryptophan with the mammalian isoforms I-XIV. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 8373-8	3.4	60
449	Carbonic anhydrase activators: human isozyme II is strongly activated by oligopeptides incorporating the carboxyterminal sequence of the bicarbonate anion exchanger AE1. *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 1177-80	2.9	60
448	Carbonic anhydrase inhibitors. Interaction of isozymes I, II, IV, V, and IX with carboxylates. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 573-8	2.9	60
447	Carbonic anhydrase activators: high affinity isozymes I, II, and IV activators, incorporating a beta-alanyl-histidine scaffold. *Journal of Medicinal Chemistry*, **2002**, 45, 284-91	8.3	60
446	Carbonic anhydrase inhibitors. Interaction of indapamide and related diuretics with 12 mammalian isozymes and X-ray crystallographic studies for the indapamide-isozyme II adduct. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 2567-73	2.9	59
445	A highly catalytically active β-carbonic anhydrase from the pathogenic anaerobe Porphyromonas gingivalis and its inhibition profile with anions and small molecules. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 4067-71	2.9	58
444	Carbonic anhydrase activation enhances object recognition memory in mice through phosphorylation of the extracellular signal-regulated kinase in the cortex and the hippocampus. *Neuropharmacology*, **2017**, 118, 148-156	5.5	57

443	Coumarinyl-substituted sulfonamides strongly inhibit several human carbonic anhydrase isoforms: solution and crystallographic investigations. *Bioorganic and Medicinal Chemistry*, **2010**, 18, 4873-8	3.4	57
442	Characterization of the first beta-class carbonic anhydrase from an arthropod (Drosophila melanogaster) and phylogenetic analysis of beta-class carbonic anhydrases in invertebrates. *BMC Biochemistry*, **2010**, 11, 28	4.8	57
441	Carbonic anhydrase inhibitors. Inhibition of the zinc and cobalt $gamma;-class enzyme from the archaeon Methanosarcina thermophila with anions. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 3327-3331	2.9	57
440	Cloning, characterization and anion inhibition study of the □-class carbonic anhydrase (TweCA) from the marine diatom Thalassiosira weissflogii. *Bioorganic and Medicinal Chemistry*, **2014**, 22, 531-7	3.4	56
439	Carbonic anhydrase inhibitors: Inhibition of the new membrane-associated isoform XV with phenols. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 3593-6	2.9	56
438	An update in the development of HIV entry inhibitors. *Current Topics in Medicinal Chemistry*, **2007**, 7, 1273-89	3	56
437	Carbonic anhydrase inhibitors: topical sulfonamide antiglaucoma agents incorporating secondary amine moieties. *Bioorganic and Medicinal Chemistry Letters*, **2000**, 10, 673-6	2.9	56
436	Protease inhibitors: synthesis of potent bacterial collagenase and matrix metalloproteinase inhibitors incorporating N-4-nitrobenzylsulfonylglycine hydroxamate moieties. *Journal of Medicinal Chemistry*, **2000**, 43, 1858-65	8.3	56
435	Carbonic anhydrase inhibitors: Schiff bases of aromatic and heterocyclic sulfonamides and their metal complexes. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2004**, 19, 263-7	5.6	55
434	Carbonic anhydrase inhibitors: aromatic sulfonamides and disulfonamides act as efficient tumor growth inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 597-610		55
433	Nuclear relaxation in the magnetic coupled system Cu2Co2SOD. Histidine-44 is detached upon anion binding. *Journal of the American Chemical Society*, **1987**, 109, 2328-2334	16.4	55
432	5- and 6-membered (thio)lactones are prodrug type carbonic anhydrase inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 267-70	2.9	54
431	Carbonic anhydrase inhibitors. Part 43. Schiff bases derived from aromatic sulfonamides: towards more specific inhibitors for membrane-bound versus cytosolic isozymes. *European Journal of Medicinal Chemistry*, **1997**, 32, 445-452	6.8	54
430	Targeting cysteine residues of biomolecules: new approaches for the design of antiviral and anticancer drugs. *Current Medicinal Chemistry*, **2002**, 9, 1167-85	4.3	54
429	Jahn-Teller distortions of tris(ethylenediamine)copper(II) complexes. *Inorganic Chemistry*, **1977**, 16, 1973-1976	5.1	54
428	Carbonic anhydrase inhibitors. Comparison of chlorthalidone, indapamide, trichloromethiazide, and furosemide X-ray crystal structures in adducts with isozyme II, when several water molecules make the difference. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 1214-21	3.4	53
427	Carbonic anhydrase inhibitors. inhibition of cytosolic isozymes I and II and transmembrane, cancer-associated isozyme IX with anions. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2003**, 18, 403-6	5.6	53
426	The extremo-□carbonic anhydrase (CA) from Sulfurihydrogenibium azorense, the fastest CA known, is highly activated by amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 1087-90	2.9	52

425	Carbonic anhydrase inhibitors: 4-sulfamoyl-benzenecarboxamides and 4-chloro-3-sulfamoyl-benzenecarboxamides with strong topical antiglaucoma properties. *Bioorganic and Medicinal Chemistry Letters*, **2001**, 11, 1787-91	2.9	52
424	Carbonic anhydrase catalyzes cyanamide hydration to urea: is it mimicking the physiological reaction?. *Journal of Biological Inorganic Chemistry*, **1999**, 4, 528-36	3.7	52
423	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
422	Ureido-substituted sulfamates show potent carbonic anhydrase IX inhibitory and antiproliferative activities against breast cancer cell lines. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 4681-5	2.9	51
421	Carbonic anhydrase inhibitors. Inhibition and homology modeling studies of the fungal beta-carbonic anhydrase from Candida albicans with sulfonamides. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 4503-9	3.4	51
420	Purification, biochemical properties and substrate specificity of a catechol 1,2-dioxygenase from a phenol degrading Acinetobacter radioresistens. *FEBS Letters*, **1997**, 416, 61-4	3.8	51
419	The alpha-carbonic anhydrase from the thermophilic bacterium Sulfurihydrogenibium yellowstonense YO3AOP1 is highly susceptible to inhibition by sulfonamides. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 1534-8	3.4	50
418	Anion inhibition studies of the □carbonic anhydrase from the pathogenic bacterium Vibrio cholerae. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 1636-8	2.9	50
417	Phosphodiesterase 5 inhibitors--drug design and differentiation based on selectivity, pharmacokinetic and efficacy profiles. *Current Pharmaceutical Design*, **2006**, 12, 3459-65	3.3	50
416	New selective carbonic anhydrase IX inhibitors: synthesis and pharmacological evaluation of diarylpyrazole-benzenesulfonamides. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 1451-64	3.4	49
415	Carbonic anhydrase inhibitors. Comparison of chlorthalidone and indapamide X-ray crystal structures in adducts with isozyme II: when three water molecules and the keto-enol tautomerism make the difference. *Journal of Medicinal Chemistry*, **2009**, 52, 322-8	8.3	49
414	The development of topically acting carbonic anhydrase inhibitors as anti-glaucoma agents. *Current Topics in Medicinal Chemistry*, **2007**, 7, 849-54	3	49
413	Carbonic anhydrase inhibitors. Synthesis and inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, and IX with boron-containing sulfonamides, sulfamides, and sulfamates: toward agents for boron neutron capture therapy of hypoxic tumors. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 3302-6	2.9	49
412	Carbonic anhydrase inhibitors. Arylsulfonylureido- and arylureido-substituted aromatic and heterocyclic sulfonamides: towards selective inhibitors of carbonic anhydrase isozyme I. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1999**, 14, 343-63		49
411	Inhibition studies of a beta-carbonic anhydrase from Brucella suis with a series of water soluble glycosyl sulfanilamides. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 2178-82	2.9	48
410	Carbonic anhydrase inhibitors. Novel sulfanilamide/acetazolamide derivatives obtained by the tail approach and their interaction with the cytosolic isozymes I and II, and the tumor-associated isozyme IX. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 367-72	2.9	48
409	Six-coordinate copper complexes wlth g. *Coordination Chemistry Reviews*, **1979**, 29, 67-84	23.2	48
408	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

407	Sulfonamide inhibition studies of the β-carbonic anhydrase from the diatom Thalassiosira weissflogii. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 275-9	2.9	47
406	Carbonic anhydrase inhibitors: X-ray crystallographic structure of the adduct of human isozyme II with the perfluorobenzoyl analogue of methazolamide. Implications for the drug design of fluorinated inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2003**, 18, 303-8	5.6	47
405	Carbonic anhydrase inhibitors. Inhibition of the beta-class enzyme from the methanoarchaeon Methanobacterium thermoautotrophicum (Cab) with anions. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 4563-7	2.9	47
404	Carbonic anhydrase inhibitors. Part 71. Synthesis and ocular pharmacology of a new class of water-soluble, topically effective intraocular pressure lowering sulfonamides incorporating picolinoyl moieties. *European Journal of Pharmaceutical Sciences*, **1999**, 8, 317-28	5.1	47
403	Effects of planar and tetrahedral distortions on the ESR parameters of bis(salicylaldiminato)copper(II) complexes. *Inorganic Chemistry*, **1980**, 19, 2198-2200	5.1	47
402	Sulfonamide inhibition studies of the β-carbonic anhydrase from the oral pathogen Porphyromonas gingivalis. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 240-4	2.9	46
401	New chemotypes acting as isozyme-selective carbonic anhydrase inhibitors with low affinity for the offtarget cytosolic isoform II. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 2182-5	2.9	46
400	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
399	Carbonic anhydrase inhibitors: bioreductive nitro-containing sulfonamides with selectivity for targeting the tumor associated isoforms IX and XII. *Journal of Medicinal Chemistry*, **2008**, 51, 3230-7	8.3	46
398	Carbonic anhydrase inhibitors. Inhibition of the cytosolic human isozymes I and II, and the transmembrane, tumor-associated isozymes IX and XII with substituted aromatic sulfonamides activatable in hypoxic tumors. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 4846-51	2.9	46
397	Carbonic anhydrase inhibitors: X-ray crystallographic structure of the adduct of human isozyme II with a topically acting antiglaucoma sulfonamide. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 2357-61	2.9	46
396	Carbonic anhydrase inhibitors: the first on-resin screening of a 4-sulfamoylphenylthiourea library. *Journal of Medicinal Chemistry*, **2004**, 47, 5224-9	8.3	46
395	Sulfonamide derivatives with protease inhibitory action as anticancer, anti-inflammatory and antiviral agents. *Expert Opinion on Therapeutic Patents*, **2002**, 12, 1307-1327	6.8	46
394	Hypoxia induced CA9 inhibitory targeting by two different sulfonamide derivatives including acetazolamide in human glioblastoma. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 3949-57	3.4	45
393	Anion inhibition studies of the β-carbonic anhydrase from the protozoan pathogen Trypanosoma cruzi, the causative agent of Chagas disease. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 4472-6	3.4	45
392	Conformational variability of different sulfonamide inhibitors with thienyl-acetamido moieties attributes to differential binding in the active site of cytosolic human carbonic anhydrase isoforms. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 3732-8	3.4	45
391	Inhibition studies of the β-carbonic anhydrases from the bacterial pathogen Salmonella enterica serovar Typhimurium with sulfonamides and sulfamates. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 5023-30	3.4	45
390	Carbonic anhydrase inhibitors. Inhibition of transmembrane isoforms IX, XII, and XIV with less investigated anions including trithiocarbonate and dithiocarbamate. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 1548-50	2.9	45

389	Carbonic anhydrase activators: activation of the human isoforms VII (cytosolic) and XIV (transmembrane) with amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 4107-12	2.9	45
388	Phosph(on)ate as a zinc-binding group in metalloenzyme inhibitors: X-ray crystal structure of the antiviral drug foscarnet complexed to human carbonic anhydrase I. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 2210-5	2.9	45
387	Carbonic anhydrase inhibitors: inhibition of human, bacterial, and archaeal isozymes with benzene-1,3-disulfonamides--solution and crystallographic studies. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 4201-7	2.9	45
386	Carbonic anhydrase activators: activation of isozyme XIII with amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 3955-9	2.9	45
385	Carbonic anhydrase inhibitors: inhibition of the tumor-associated isozyme IX with fluorine-containing sulfonamides. The first subnanomolar CA IX inhibitor discovered. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 2351-6	2.9	45
384	Carbonic anhydrase inhibitors: synthesis and inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, and IX with sulfonamides derived from 4-isothiocyanato-benzolamide. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 5775-80	2.9	45
383	Antimycobacterial activity of 9-sulfonylated/sulfenylated-6-mercaptopurine derivatives. *Bioorganic and Medicinal Chemistry Letters*, **2001**, 11, 1675-8	2.9	45
382	1H-NMR studies on partially and fully reduced 2(4Fe-4S) ferredoxin from Clostridium pasteurianum. *FEBS Journal*, **1992**, 204, 831-9		45
381	Anion inhibition studies of two new □carbonic anhydrases from the bacterial pathogen Legionella pneumophila. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 1127-32	2.9	44
380	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
379	Molecular cloning, characterization, and inhibition studies of a □carbonic anhydrase from Malassezia globosa, a potential antidandruff target. *Journal of Medicinal Chemistry*, **2012**, 55, 3513-20	8.3	44
378	Carbonic anhydrase activators: activation of the human tumor-associated isozymes IX and XII with amino acids and amines. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 3530-6	3.4	44
377	Crystal structure of 4-chlorocatechol 1,2-dioxygenase from the chlorophenol-utilizing gram-positive Rhodococcus opacus 1CP. *Journal of Biological Chemistry*, **2004**, 279, 27646-55	5.4	44
376	Carbonic anhydrase inhibitors: inhibition of human and murine mitochondrial isozymes V with anions. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 2857-61	2.9	44
375	Mono-/dihydroxybenzoic acid esters and phenol pyridinium derivatives as inhibitors of the mammalian carbonic anhydrase isoforms I, II, VII, IX, XII and XIV. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 1564-9	3.4	43
374	Carbonic anhydrase activators: gold nanoparticles coated with derivatized histamine, histidine, and carnosine show enhanced activatory effects on several mammalian isoforms. *Journal of Medicinal Chemistry*, **2011**, 54, 1170-7	8.3	43
373	Carbonic anhydrase and matrix metalloproteinase inhibitors. Inhibition of human tumor-associated isozymes IX and cytosolic isozyme I and II with sulfonylated hydroxamates. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 2298-311	3.4	43
372	Carbonic anhydrase inhibitors. Interaction of 2-(hydrazinocarbonyl)-3-phenyl-1H-indole-5-sulfonamide with 12 mammalian isoforms: kinetic and X-ray crystallographic studies. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 152-8	2.9	43

371	Carbonic anhydrase inhibitors: synthesis and inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, IX, and XII with N-hydroxysulfamides--a new zinc-binding function in the design of inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 2353-8	2.9	43
370	Anion inhibition studies of a β-carbonic anhydrase from Clostridium perfringens. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 6706-10	2.9	42
369	Carbonic anhydrase inhibitors. Inhibition of the fungal beta-carbonic anhydrases from Candida albicans and Cryptococcus neoformans with boronic acids. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 2642-5	2.9	42
368	Synthesis and crystallographic analysis of new sulfonamides incorporating NO-donating moieties with potent antiglaucoma action. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 3216-21	2.9	42
367	Carbonic anhydrase activators: the first activation study of the human secretory isoform VI with amino acids and amines. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 5351-7	3.4	42
366	Carbonic anhydrase inhibitors. Inhibition of isoforms I, II, IV, VA, VII, IX, and XIV with sulfonamides incorporating fructopyranose-thioureido tails. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 2685-91	2.9	42
365	Carbonic anhydrase inhibitors. Inhibition of the newly isolated murine isozyme XIII with anions. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 5435-9	2.9	42
364	Crystal structure of a zinc-activated variant of human carbonic anhydrase I, CA I Michigan 1: evidence for a second zinc binding site involving arginine coordination. *Biochemistry*, **2002**, 41, 6237-44	3.2	42
363	Mechanism of cyanamide hydration catalyzed by carbonic anhydrase II suggested by cryogenic X-ray diffraction. *Biochemistry*, **2000**, 39, 12391-7	3.2	42
362	Sulfonamide inhibition studies of two β-carbonic anhydrases from the bacterial pathogen Legionella pneumophila. *Bioorganic and Medicinal Chemistry*, **2014**, 22, 2939-46	3.4	41
361	SYNTHESIS AND CARBONIC ANHYDRASE INHIBITORY ACTIVITY OF 5-BENZOYLAMIDO- AND 5-(3-NITROBENZOYLAMIDO)- 1,3,4-THIADIAZOLE-2-SULFONAMIDE AND THEIR METAL COMPLEXES. *Main Group Metal Chemistry*, **1997**, 20,	1.6	41
360	Carbonic anhydrase activators: an activation study of the human mitochondrial isoforms VA and VB with amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 1336-40	2.9	41
359	Carbonic anhydrase inhibitors: synthesis and inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, and IX with bis-sulfamates. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 579-84	2.9	41
358	Modulation of carbonic anhydrase 9 (CA9) in human brain cancer. *Current Pharmaceutical Design*, **2010**, 16, 3288-99	3.3	40
357	Cloning, polymorphism, and inhibition of beta-carbonic anhydrase of Helicobacter pylori. *Journal of Gastroenterology*, **2008**, 43, 849-57	6.9	40
356	Antifungal activity of silver and zinc complexes of sulfadrug derivatives incorporating arylsulfonylureido moieties. *European Journal of Pharmaceutical Sciences*, **2000**, 11, 99-107	5.1	40
355	2D 1H NMR studies of oxidized 2(Fe4S4) ferredoxin from Clostridium pasteurianum. *FEBS Letters*, **1991**, 289, 253-6	3.8	40
354	Non-peptidic chemokine receptors antagonists as emerging anti-HIV agents. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 69-76	5.6	39

353	Purification and catalytic properties of two catechol 1,2-dioxygenase isozymes from benzoate-grown cells of Acinetobacter radioresistens. *The Protein Journal*, **2000**, 19, 709-16		39
352	Carbonic anhydrase inhibitors: synthesis of sulfonamides incorporating 2,4,6-trisubstituted-pyridinium-ethylcarboxamido moieties possessing membrane-impermeability and in vivo selectivity for the membrane-bound (CA IV) versus the cytosolic (CA I and CA II) isozymes. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 381-401		39
351	Sulfonamides incorporating fluorine and 1,3,5-triazine moieties are effective inhibitors of three β-class carbonic anhydrases from Mycobacterium tuberculosis. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2014**, 29, 686-9	5.6	38
350	Carbonic anhydrase inhibitors. Inhibition of cytosolic isoforms I and II, and extracellular isoforms IV, IX, and XII with sulfamides incorporating sugar moieties. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 5086-90	2.9	38
349	Crystal structure of the hydroxyquinol 1,2-dioxygenase from Nocardioides simplex 3E, a key enzyme involved in polychlorinated aromatics biodegradation. *Journal of Biological Chemistry*, **2005**, 280, 21144-54	5.4	38
348	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, 1937-42	2.9	38
347	Discovery of Novel Nonsteroidal Anti-Inflammatory Drugs and Carbonic Anhydrase Inhibitors Hybrids (NSAIDs-CAIs) for the Management of Rheumatoid Arthritis. *Journal of Medicinal Chemistry*, **2018**, 61, 4961-4977	8.3	37
346	Salen and tetrahydrosalen derivatives act as effective inhibitors of the tumor-associated carbonic anhydrase XII--a new scaffold for designing isoform-selective inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 6759-63	2.9	37
345	Restoring catalytic activity to the human carbonic anhydrase (CA) related proteins VIII, X and XI affords isoforms with high catalytic efficiency and susceptibility to anion inhibition. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 256-60	2.9	37
344	Catechol 1,2-dioxygenase from the Gram-positive Rhodococcus opacus 1CP: quantitative structure/activity relationship and the crystal structures of native enzyme and catechols adducts. *Journal of Structural Biology*, **2010**, 170, 548-64	3.4	36
343	Salicylate 1,2-dioxygenase from Pseudaminobacter salicylatoxidans: crystal structure of a peculiar ring-cleaving dioxygenase. *Journal of Molecular Biology*, **2008**, 380, 856-68	6.5	36
342	Carbonic anhydrase inhibitors: cloning and sulfonamide inhibition studies of a carboxyterminal truncated alpha-carbonic anhydrase from Helicobacter pylori. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 2182-8	2.9	36
341	Carbonic anhydrase inhibitors. Inhibition of cytosolic isozyme XIII with aromatic and heterocyclic sulfonamides: a novel target for the drug design. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 3757-62	2.9	36
340	Hydroxyurea is a carbonic anhydrase inhibitor. *Bioorganic and Medicinal Chemistry*, **2003**, 11, 2241-6	3.4	36
339	Proton NMR studies of the oxidized and partially reduced 2(4Fe-4S) ferredoxin from Clostridium pasteurianum. *Inorganic Chemistry*, **1990**, 29, 1874-1880	5.1	36
338	Carbonic anhydrase inhibitors. Aromatic/heterocyclic sulfonamides incorporating phenacetyl, pyridylacetyl and thienylacetyl tails act as potent inhibitors of human mitochondrial isoforms VA and VB. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 4894-9	3.4	35
337	Carbonic anhydrase inhibitors. Inhibition of cytosolic isoforms I, II, III, VII and XIII with less investigated inorganic anions. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 1855-7	2.9	35
336	Inhibition of the R1 fragment of the cadmium-containing zeta-class carbonic anhydrase from the diatom Thalassiosira weissflogii with anions. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 4745-8	2.9	35

335	Sulfenamido-sulfonamides as inhibitors of carbonic anhydrase isozymes I, II and IV. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1997**, 12, 175-90		35
334	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, 1726-31	2.9	35
333	Carbonic anhydrase inhibitors: thioxolone versus sulfonamides for obtaining isozyme-selective inhibitors?. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 3938-41	2.9	35
332	Carbonic anhydrase inhibitors: copper(II) complexes of polyamino-polycarboxylamido aromatic/heterocyclic sulfonamides are very potent inhibitors of the tumor-associated isoforms IX and XII. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 836-41	2.9	35
331	Transition metal acetylsalicylates and their anti-inflammatory activity. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 87-91	5.6	35
330	Carbonic Anhydrase Inhibitors. Synthesis of Topically Effective Intraocular Pressure Lowering Agents Derived from 5-(□Amino-Alkylcarboxamido)-1,3,4-Thia-Diazole-2-Sulfonamide. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1999**, 15, 23-46		35
329	Plasmonic Particles that Hit Hypoxic Cells. *Advanced Functional Materials*, **2015**, 25, 316-323	15.6	34
328	Synthesis of a new series of dithiocarbamates with effective human carbonic anhydrase inhibitory activity and antiglaucoma action. *Bioorganic and Medicinal Chemistry*, **2015**, 23, 2368-76	3.4	34
327	Molecular modeling study for the binding of zonisamide and topiramate to the human mitochondrial carbonic anhydrase isoform VA. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 4152-8	3.4	34
326	Carbonic anhydrase inhibitors. Interaction of the antiepileptic drug sulthiame with twelve mammalian isoforms: kinetic and X-ray crystallographic studies. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 4866-72	2.9	34
325	N-hydroxyurea--a versatile zinc binding function in the design of metalloenzyme inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 4316-20	2.9	34
324	Synthesis of Biologically Active Co(II), Cu(II), Ni(II) and Zn(II) Complexes of Symmetrically 1,1?-Disubstituted Ferrocene-Derived Compounds. *Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry*, **2003**, 33, 241-257		34
323	Protease inhibitors: synthesis of a series of bacterial collagenase inhibitors of the sulfonyl amino acyl hydroxamate type. *Journal of Medicinal Chemistry*, **2001**, 44, 2253-8	8.3	34
322	Binding sites of anions in superoxide dismutase. *Journal of the American Chemical Society*, **1981**, 103, 7779-7783	16.4	34
321	Single crystal electronic spectra and ligand field parameters of some nickel(II) amine-isothiocyanato and amine-nitrito complexes. *Inorganic Chemistry*, **1976**, 15, 203-207	5.1	34
320	Kinetic and anion inhibition studies of a □carbonic anhydrase (FbiCA 1) from the C4 plant Flaveria bidentis. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 1626-30	2.9	33
319	Carbonic anhydrase inhibitors. Phenacetyl-, pyridylacetyl- and thienylacetyl-substituted aromatic sulfonamides act as potent and selective isoform VII inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 3170-3	2.9	33
318	Carbonic anhydrase inhibitors. Inhibition of transmembrane isozymes XII (cancer-associated) and XIV with anions. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 1532-7	2.9	33

317	Carbonic anhydrase activators: activation of the archaeal beta-class (Cab) and gamma-class (Cam) carbonic anhydrases with amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 6194-8	2.9	33
316	Crystal structure of 3-chlorocatechol 1,2-dioxygenase key enzyme of a new modified ortho-pathway from the Gram-positive Rhodococcus opacus 1CP grown on 2-chlorophenol. *Journal of Molecular Biology*, **2006**, 360, 788-99	6.5	33
315	Carbonic anhydrase inhibitors: X-ray crystallographic structure of the adduct of human isozyme II with a bis-sulfonamide-two heads are better than one?. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 2759-63	2.9	33
314	Carbonic anhydrase inhibitors: synthesis of N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamides and their interaction with isozymes I, II and IV. *Bioorganic and Medicinal Chemistry Letters*, **2000**, 10, 1117-20	2.9	33
313	Sulfonamide inhibition studies of the □-carbonic anhydrase from the Antarctic cyanobacterium Nostoc commune. *Bioorganic and Medicinal Chemistry*, **2015**, 23, 1728-34	3.4	32
312	Sulfonamide inhibition study of the carbonic anhydrases from the bacterial pathogen Porphyromonas gingivalis: the □-class (PgiCAb) versus the □-class (PgiCA) enzymes. *Bioorganic and Medicinal Chemistry*, **2014**, 22, 4537-43	3.4	32
311	Tricyclic sulfonamides incorporating benzothiopyrano[4,3-c]pyrazole and pyridothiopyrano[4,3-c]pyrazole effectively inhibit □-and □-carbonic anhydrase: X-ray crystallography and solution investigations on 15 isoforms. *Journal of Medicinal Chemistry*, **2012**, 55, 9619-29	8.3	32
310	Carbonic anhydrase inhibitors. Cloning, characterization and inhibition studies of the cytosolic isozyme III with anions. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2009**, 24, 70-6	5.6	32
309	Carbonic anhydrase inhibitors. Inhibition studies of the human secretory isoform VI with anions. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 1037-42	2.9	32
308	Carbonic anhydrase inhibitors: synthesis and topical intraocular pressure lowering effects of fluorine-containing inhibitors devoid of enhanced reactivity. *Journal of Medicinal Chemistry*, **2004**, 47, 2796-804	8.3	32
307	Carbonic anhydrase inhibitors: inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, and IX with benzo[b]thiophene 1,1-dioxide sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 4872-6	2.9	32
306	Carbonic anhydrase activators. Part 24. High affinity isozymes I, II and IV activators, derivatives of 4-(4-chlorophenylsulfonylureido-amino acyl)ethyl-1H-imidazole. *European Journal of Pharmaceutical Sciences*, **2000**, 10, 29-41	5.1	32
305	X-ray absorption studies on catechol 2,3-dioxygenase from Pseudomonas putida mt2. *Biochemistry*, **1994**, 33, 10777-84	3.2	32
304	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, 6204-8	2.9	31
303	Benzolamide is not a membrane-impermeant carbonic anhydrase inhibitor. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2004**, 19, 269-73	5.6	31
302	Carbonic anhydrase inhibitors: synthesis of water soluble sulfonamides incorporating a 4-sulfamoylphenylmethylthiourea scaffold, with potent intraocular pressure lowering properties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 333-43	5.6	31
301	Novel carbonic anhydrase isozymes I, II and IV activators incorporating sulfonyl-histamino moieties. *Bioorganic and Medicinal Chemistry Letters*, **1999**, 9, 2043-8	2.9	31
300	New advances in HIV entry inhibitors development. *Current Drug Targets Infectious Disorders*, **2004**, 4, 339-55		31

299	Inhibition of carbonic anhydrase IX: a new strategy against cancer. *Anti-Cancer Agents in Medicinal Chemistry*, **2009**, 9, 693-702	2.2	31
298	6-Substituted 1,2-benzoxathiine-2,2-dioxides are isoform-selective inhibitors of human carbonic anhydrases IX, XII and VA. *Organic and Biomolecular Chemistry*, **2015**, 13, 77-80	3.9	30
297	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, 2669-74	2.9	30
296	Carbonic anhydrase inhibitors: topically acting antiglaucoma sulfonamides incorporating esters and amides of 3- and 4-carboxybenzolamide. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 2867-73	2.9	30
295	Carbonic anhydrase inhibitors. Inhibition of isozymes I, II, IV, V, and IX with anions isosteric and isoelectronic with sulfate, nitrate, and carbonate. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 567-71	2.9	30
294	4-toluenesulfonylureido derivatives of amines, amino acids and dipeptides: a novel class of potential antitumor agents. *European Journal of Pharmaceutical Sciences*, **2000**, 11, 325-32	5.1	30
293	Ligand field interpretation of high-spin trigonal-bipyramidal cobalt(II) complexes. *Inorganic Chemistry*, **1975**, 14, 812-815	5.1	30
292	Inhibition of β-class cytosolic human carbonic anhydrases I, II, IX and XII, and β-class fungal enzymes by carboxylic acids and their derivatives: new isoform-I selective nanomolar inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 5801-6	2.9	29
291	Carbonic anhydrase inhibitors. Inhibition studies of a coral secretory isoform by sulfonamides. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 5054-8	3.4	29
290	Laccase isoforms with unusual properties from the basidiomycete Steccherinum ochraceum strain 1833. *Journal of Applied Microbiology*, **2008**, 105, 2065-75	4.7	29
289	Carbonic anhydrase activators: Activation of the human cytosolic isozyme III and membrane-associated isoform IV with amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 4303-7	2.9	29
288	Protein tyrosine kinase inhibitors as anticancer agents. *Expert Opinion on Therapeutic Patents*, **2004**, 14, 35-53	6.8	29
287	Therapeutic applications of sulfamates. *Expert Opinion on Therapeutic Patents*, **2004**, 14, 1273-1308	6.8	29
286	Cysteine-modifying agents: a possible approach for effective anticancer and antiviral drugs. *Environmental Health Perspectives*, **2002**, 110 Suppl 5, 801-6	8.4	29
285	Carbonic anhydrase inhibitors. Inhibition of the membrane-bound human and bovine isozymes IV with sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 1149-54	2.9	29
284	Protease inhibitors: synthesis and QSAR study of novel classes of nonbasic thrombin inhibitors incorporating sulfonylguanidine and O-methylsulfonylisourea moieties at P1. *Journal of Medicinal Chemistry*, **2000**, 43, 1793-806	8.3	29
283	Sulfonamide inhibition studies of the β-carbonic anhydrase from the Antarctic bacterium Pseudoalteromonas haloplanktis. *Bioorganic and Medicinal Chemistry Letters*, **2015**, 25, 3550-5	2.9	28
282	Novel small molecule protein arginine deiminase 4 (PAD4) inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 715-9	2.9	28

281	Carbonic Anhydrases Possess Thioesterase Activity. *ACS Medicinal Chemistry Letters*, **2015**, 6, 292-5	4.3	28
280	Carbonic anhydrase inhibitors. Inhibition of the class enzymes from the fungal pathogens Candida albicans and Cryptococcus neoformans with branched aliphatic/aromatic carboxylates and their derivatives. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 2521-6	2.9	28
279	Carbonic anhydrase inhibitors: design of membrane-impermeant copper(II) complexes of DTPA-, DOTA-, and TETA-tailed sulfonamides targeting the tumor-associated transmembrane isoform IX. *ChemMedChem*, **2008**, 3, 1780-8	3.7	28
278	3D QSAR selectivity analyses of carbonic anhydrase inhibitors: insights for the design of isozyme selective inhibitors. *Journal of Chemical Information and Modeling*, **2006**, 46, 2737-60	6.1	28
277	Antibacterial cobalt(II), nickel(II) and zinc(II) complexes of nicotinic acid-derived Schiff-bases. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 101-6	5.6	28
276	Protease inhibitors - part 5. Alkyl/arylsulfonyl- and arylsulfonylureido-/arylureido- glycine hydroxamate inhibitors of Clostridium histolyticum collagenase. *European Journal of Medicinal Chemistry*, **2000**, 35, 299-307	6.8	28
275	Carbonic anhydrase activators: synthesis of high affinity isozymes I, II and IV activators, derivatives of 4-(4-tosylureido-amino acyl)ethyl-1H-imidazole (histamine derivatives). *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 139-61		28
274	Carbonic anhydrase inhibitors: inhibition of isozymes I, II and IV by sulfamide and sulfamic acid derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 443-53		28
273	Carbonic anhydrase inhibitors. Water-soluble, topically effective intraocular pressure lowering agents derived from isonicotinic acid and aromatic/heterocyclic sulfonamides: is the tail more important than the ring?. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1999**, 14, 457-74		28
272	Superoxide dismutase-thiocyanate: a study of the binding sites of anions on copper(II) in superoxide dismutase. *Journal of the American Chemical Society*, **1980**, 102, 7349-7353	16.4	28
271	Interaction of cobalt-bovine carbonic anhydrase with the acetate ion. *Biochimica Et Biophysica Acta - Biomembranes*, **1976**, 452, 239-44	3.8	28
270	Anion inhibition study of the class carbonic anhydrase (PgiCAb) from the oral pathogen Porphyromonas gingivalis. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 4402-4406	2.9	27
269	Inhibition of beta-carbonic anhydrases from the bacterial pathogen Brucella suis with inorganic anions. *Journal of Inorganic Biochemistry*, **2012**, 110, 36-9	4.2	27
268	Differential decolorization of textile dyes in mixtures and the joint effect of laccase and cellobiose dehydrogenase activities present in extracellular extracts from Funalia trogii. *Enzyme and Microbial Technology*, **2011**, 49, 465-71	3.8	27
267	Carbonic anhydrase inhibitors: inhibition studies of a coral secretory isoform with inorganic anions. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 650-3	2.9	27
266	Carbonic anhydrase inhibitors. Inhibition of the human cytosolic isoforms I and II and transmembrane, tumor-associated isoforms IX and XII with boronic acids. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 3649-52	3.4	27
265	Carbonic anhydrase inhibitors. Inhibition of the Rv1284 and Rv3273 beta-carbonic anhydrases from Mycobacterium tuberculosis with diazenylbenzenesulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 4929-32	2.9	27
264	Carbonic anhydrase activators. Part 17. Synthesis and activation study of a series of 1-(1,2,4-triazole-(1H)-3-yl)-2,4,6-trisubstituted-pyridinium salts against isozymes I, II and IV. *European Journal of Medicinal Chemistry*, **1997**, 32, 911-918	6.8	27

263	Carbonic anhydrase inhibitors: ureido and thioureido derivatives of aromatic sulfonamides possessing increased affinities for isozyme I. A novel route to 2,5-disubstituted-1,3,4-thiadiazoles via thioureas, and their interaction with isozymes I, II and IV. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1998**, 13, 103-23		27
262	Carbonic anhydrase inhibitors: inhibition of cytosolic/tumor-associated isoforms I, II, and IX with iminodiacetic carboxylates/hydroxamates also incorporating benzenesulfonamide moieties. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 1538-43	2.9	27
261	Carbonic anhydrase inhibitors: inhibition of human cytosolic isozymes I and II and tumor-associated isozymes IX and XII with S-substituted 4-chloro-2-mercapto-5-methyl-benzenesulfonamides. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 3933-40	3.4	27
260	Carbonic anhydrase activators - part 21. Novel activators of isozymes I, II and IV incorporating carboxamido and ureido histamine moieties. *European Journal of Medicinal Chemistry*, **2000**, 35, 31-9	6.8	27
259	Evidence of exchangeable protons in the donor groups of the acidic form of cobalt bovine carbonic anhydrase B. *Biochemical and Biophysical Research Communications*, **1977**, 78, 158-60	3.4	27
258	Interaction of cobalt(II) bovine carbonic anhydrase with aniline, benzoate, and anthranilate. *Journal of the American Chemical Society*, **1977**, 99, 581-4	16.4	27
257	Role of surfactants in optimizing fluorene assimilation and intermediate formation by Rhodococcus rhodochrous VKM B-2469. *Bioresource Technology*, **2009**, 100, 839-44	11	26
256	Inhibition of □carbonic anhydrases with ureido-substituted benzenesulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 102-5	2.9	26
255	Carbonic anhydrase inhibitors. The beta-carbonic anhydrases from the fungal pathogens Cryptococcus neoformans and Candida albicans are strongly inhibited by substituted-phenyl-1H-indole-5-sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 2508-11	2.9	26
254	Carbonic Anhydrase Inhibitors. Part 46 Inhibition of Carbonic Anhydrase Isozymes I, II and IV With Trifluoromethylsulfonamide Derivatives and Their Zinc(II) and Copper(II) Complexes. *Metal-Based Drugs*, **1997**, 4, 27-34		26
253	Carbonic anhydrase inhibitors: inhibition of the cytosolic human isozyme VII with anions. *Bioorganic and Medicinal Chemistry Letters*, **2006**, 16, 3139-43	2.9	26
252	Carbonic anhydrase inhibitors: inhibition of the membrane-bound human isozyme IV with anions. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 5769-73	2.9	26
251	Protease inhibitors. Part 7. Inhibition of Clostridium histolyticum collagenase with sulfonylated derivatives of L-valine hydroxamate. *European Journal of Pharmaceutical Sciences*, **2000**, 10, 67-76	5.1	26
250	Carbonic anhydrase inhibitors: inhibition of isozymes I, II and IV with N-hydroxysulfonamides--a novel class of intraocular pressure lowering agents. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1998**, 13, 267-84		26
249	Carbonic anhydrase inhibitors. Schiff bases of some aromatic sulfonamides and their metal complexes: towards more selective inhibitors of carbonic anhydrase isozyme IV. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1999**, 14, 407-23		26
248	The acid-base equilibria of carbonic anhydrase. *Inorganica Chimica Acta*, **1980**, 46, 85-89	2.7	26
247	Cloning, characterization and anion inhibition studies of a new □carbonic anhydrase from the Antarctic bacterium Pseudoalteromonas haloplanktis. *Bioorganic and Medicinal Chemistry*, **2015**, 23, 4405-4409	3.4	25
246	Furazan and furoxan sulfonamides are strong □carbonic anhydrase inhibitors and potential antiglaucoma agents. *Bioorganic and Medicinal Chemistry*, **2014**, 22, 3913-21	3.4	25

245	Protein-protein interactions: inhibition of mammalian carbonic anhydrases I-XV by the murine inhibitor of carbonic anhydrase and other members of the transferrin family. *Journal of Medicinal Chemistry*, **2012**, 55, 5529-35	8.3	25
244	Pyridinium derivatives of histamine are potent activators of cytosolic carbonic anhydrase isoforms I, II and VII. *Organic and Biomolecular Chemistry*, **2011**, 9, 2790-800	3.9	25
243	An inhibitor-like binding mode of a carbonic anhydrase activator within the active site of isoform II. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 2764-8	2.9	25
242	Carbonic anhydrase inhibitors. Inhibition studies with anions and sulfonamides of a new cytosolic enzyme from the scleractinian coral Stylophora pistillata. *Bioorganic and Medicinal Chemistry Letters* , **2011**, 21, 710-4	2.9	25
241	Sulfonylamido derivatives of aminoglutethimide and their copper(II) complexes: a novel class of antifungal compounds. *European Journal of Medicinal Chemistry*, **1997**, 32, 901-910	6.8	25
240	A ternary complex of carbonic anhydrase: X-ray crystallographic structure of the adduct of human carbonic anhydrase II with the activator phenylalanine and the inhibitor azide. *Inorganica Chimica Acta*, **1998**, 275-276, 295-300	2.7	25
239	External pH influences the transcriptional profile of the carbonic anhydrase, CAH-4b in Caenorhabditis elegans. *Molecular and Biochemical Parasitology*, **2008**, 161, 140-9	1.9	25
238	Carbonic anhydrase inhibitors. Design of anticonvulsant sulfonamides incorporating indane moieties. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 5781-6	2.9	25
237	Carbonic anhydrase inhibitors: inhibition of the tumor-associated isozymes IX and XII with a library of aromatic and heteroaromatic sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 4862-8	2.9	25
236	Carbonic anhydrase inhibitors: design of thioureido sulfonamides with potent isozyme II and XII inhibitory properties and intraocular pressure lowering activity in a rabbit model of glaucoma. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 3821-7	2.9	25
235	Protease inhibitors. Part 8: synthesis of potent Clostridium histolyticum collagenase inhibitors incorporating sulfonylated L-alanine hydroxamate moieties. *Bioorganic and Medicinal Chemistry*, **2000**, 8, 637-45	3.4	25
234	Carbonic anhydrase activators: amino acyl/dipeptidyl histamine derivatives bind with high affinity to isozymes I, II and IV and act as efficient activators. *Bioorganic and Medicinal Chemistry*, **1999**, 7, 2915-23	3.4	25
233	1H NOE studies of oxidized high potential iron sulfur protein II from Ectothiorhodospira halophila. *Inorganica Chimica Acta*, **1991**, 180, 171-175	2.7	25
232	Reaction intermediates and redox state changes in a blue laccase from Steccherinum ochraceum observed by crystallographic high/low X-ray dose experiments. *Journal of Inorganic Biochemistry*, **2012**, 111, 203-9	4.2	24
231	Crystal structures of salicylate 1,2-dioxygenase-substrates adducts: A step towards the comprehension of the structural basis for substrate selection in class III ring cleaving dioxygenases. *Journal of Structural Biology*, **2012**, 177, 431-8	3.4	24
230	Characterization of an intradiol dioxygenase involved in the biodegradation of the chlorophenoxy herbicides 2,4-D and 2,4,5-T. *FEBS Letters*, **1997**, 407, 69-72	3.8	24
229	Complexes With Biologically Active Ligands. Part 10 Inhibition of Carbonic Anhydrase Isozymes I and II With Metal Complexes of Imidazo[2,1-b]-1,3,4-Thiadiazole-2-Sulfonamide. *Metal-Based Drugs*, **1997**, 4, 19-26		24
228	Carbonic anhydrase inhibitors: Selective inhibition of the extracellular, tumor-associated isoforms IX and XII over isozymes I and II with glycosyl-thioureido-sulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 5096-100	2.9	24

227	Protease inhibitors: synthesis of clostridium histolyticum collagenase inhibitors incorporating sulfonyl-L-alanine hydroxamate moieties. *Bioorganic and Medicinal Chemistry Letters*, **2000**, 10, 499-502	2.9	24
226	Antifungal activity of Ag(I) and Zn(II) complexes of aminobenzolamide (5-sulfanilylamido-1,3,4-thiadiazole-2-sulfonamide) derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 517-31		24
225	Dipotassium-trioxohydroxytetrafluorotriborate, K[BO$_3$F$_4$OH], is a potent inhibitor of human carbonic anhydrases. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 341-4	5.6	23
224	Development and ex vivo evaluation of 5-aminolevulinic acid-loaded niosomal formulations for topical photodynamic therapy. *International Journal of Pharmaceutics*, **2015**, 494, 258-63	6.5	23
223	Metalloenzyme inhibitors for the treatment of Gram-negative bacterial infections: a patent review (2009-2012). *Expert Opinion on Therapeutic Patents*, **2013**, 23, 777-88	6.8	23
222	Cloning, expression, post-translational modifications and inhibition studies on the latest mammalian carbonic anhydrase isoform, CA XV. *Journal of Medicinal Chemistry*, **2009**, 52, 646-54	8.3	23
221	Carbonic anhydrase inhibitors: inhibition of isozymes I, II and IV with heterocyclic mercaptans, sulfenamides, sulfonamides and their metal complexes. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1998**, 13, 177-94		23
220	Carbonic anhydrase inhibitors. Interaction of isozymes I, II, IV, V, and IX with phosphates, carbamoyl phosphate, and the phosphonate antiviral drug foscarnet. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 5763-7	2.9	23
219	Transport characteristics of L-carnosine and the anticancer derivative 4-toluenesulfonylureido-carnosine in a human epithelial cell line. *Pharmaceutical Research*, **2002**, 19, 1337-44	4.5	23
218	Protease inhibitors: synthesis of bacterial collagenase and matrix metalloproteinase inhibitors incorporating arylsulfonylureido and 5-dibenzo-suberenyl/suberyl moieties. *Bioorganic and Medicinal Chemistry*, **2003**, 11, 2227-39	3.4	23
217	Carbonic anhydrase inhibitors. Interaction of isozymes I, II, IV, V, and IX with organic phosphates and phosphonates. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 1683-6	2.9	23
216	Carbonic anhydrase inhibitors: synthesis and inhibition of cytosolic/tumor-associated carbonic anhydrase isozymes I, II, and IX with sulfonamides incorporating thioureido-sulfanilyl scaffolds. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 2359-64	2.9	23
215	Therapeutic applications of serine protease inhibitors. *Expert Opinion on Therapeutic Patents*, **2002**, 12, 1181-1214	6.8	23
214	Aliphatic and aromatic inhibitors binding to the active site of catechol 2,3-dioxygenase from Pseudomonas putida mt-2. *FEBS Letters*, **1994**, 343, 56-60	3.8	23
213	Binding affinity of bicarboxylate ions for cobalt (II) bovine carbonic anhydrase. *Bioinorganic Chemistry*, **1978**, 9, 93-100		23
212	Anion inhibition study of the β-carbonic anhydrase (CahB1) from the cyanobacterium Coleofasciculus chthonoplastes (ex-Microcoleus chthonoplastes). *Bioorganic and Medicinal Chemistry*, **2014**, 22, 1667-71	3.4	22
211	The salicylate 1,2-dioxygenase as a model for a conventional gentisate 1,2-dioxygenase: crystal structures of the G106A mutant and its adducts with gentisate and salicylate. *FEBS Journal*, **2013**, 280, 1643-52	5.7	22
210	Serendipitous fragment-based drug discovery: ketogenic diet metabolites and statins effectively inhibit several carbonic anhydrases. *Chemical Communications*, **2012**, 48, 3551-3	5.8	22

209	Metal binding functions in the design of carbonic anhydrase inhibitors. *Current Topics in Medicinal Chemistry*, **2007**, 7, 835-48	3	22
208	Protease inhibitors: synthesis of matrix metalloproteinase and bacterial collagenase inhibitors incorporating 5-amino-2-mercapto-1,3,4-thiadiazole zinc binding functions. *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 2667-72	2.9	22
207	Agents that target cysteine residues of biomolecules and their therapeutic potential. *Expert Opinion on Therapeutic Patents*, **2001**, 11, 765-787	6.8	22
206	Advances in the NMR investigation of paramagnetic molecules in solution. *Coordination Chemistry Reviews*, **1992**, 120, 1-28	23.2	22
205	Static□ynamic distortions of the tris(1,2-diaminoethane)copper(II) cation [Cu(en)3]2+. Crystal structures of the salts [Cu(en)3][SO4] at 120 K and of [Cu(en)3]Cl2□0.75 en at 298 K. *Journal of the Chemical Society Dalton Transactions*, **1979**, 1409-1414		22
204	Inhibition studies of new ureido-substituted sulfonamides incorporating a GABA moiety against human carbonic anhydrase isoforms I-XIV. *Bioorganic and Medicinal Chemistry*, **2014**, 22, 6768-75	3.4	21
203	Carbonic anhydrase activators: activation of human isozymes I, II and IX with phenylsulfonylhydrazido l-histidine derivatives. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 2440-3	2.9	21
202	Carbonic anhydrase inhibitors: synthesis and inhibition studies against mammalian isoforms I-XV with a series of 2-(hydrazinocarbonyl)-3-substituted-phenyl-1H-indole-5-sulfonamides. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 9113-20	3.4	21
201	Carbonic anhydrase inhibitors. Inhibition of cytosolic isozymes I and II and transmembrane, cancer-associated isozyme IX with lipophilic sulfonamides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2003**, 18, 333-8	5.6	21
200	Carbonic anhydrase activators. The selective serotonin reuptake inhibitors fluoxetine, sertraline and citalopram are strong activators of isozymes I and II. *Bioorganic and Medicinal Chemistry Letters*, **2003**, 13, 2765-8	2.9	21
199	Small molecule antagonists of chemokine receptors as emerging anti-HIV agents. *Expert Opinion on Therapeutic Patents*, **2001**, 11, 1245-1252	6.8	21
198	Carbonic anhydrase inhibitors: synthesis of Schiff bases of hydroxybenzaldehydes with aromatic sulfonamides and their reactions with arylsulfonyl isocyanates. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 533-46		21
197	Spectroscopic investigation of copper(II) bovine carbonic anhydrase and its inhibitor derivatives. *Journal of the Chemical Society Dalton Transactions*, **1978**, 1269		21
196	Synthesis of sulfonamides with effective inhibitory action against Porphyromonas gingivalis □carbonic anhydrase. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 4006-10	2.9	20
195	Flavones and structurally related 4-chromenones inhibit carbonic anhydrases by a different mechanism of action compared to coumarins. *Bioorganic and Medicinal Chemistry Letters*, **2012**, 22, 3063-6	2.9	20
194	Carbonic anhydrase I and II activation with mono- and dihalogenated histamine derivatives. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 4884-7	2.9	20
193	Antiglaucoma Carbonic Anhydrase Inhibitors as Ophthalomologic Drugs139-153		20
192	Design, solid-phase synthesis, and biological evaluation of novel 1,5-diarylpyrrole-3-carboxamides as carbonic anhydrase IX inhibitors. *Bioorganic and Medicinal Chemistry*, **2010**, 18, 7392-401	3.4	20

191	Carbonic anhydrase inhibitors. Interaction of 2-N,N-dimethylamino-1,3,4-thiadiazole-5-methanesulfonamide with 12 mammalian isoforms: kinetic and X-ray crystallographic studies. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 999-1005	2.9	20
190	Carbonic anhydrase inhibitors: inhibition of the human transmembrane isozyme XIV with a library of aromatic/heterocyclic sulfonamides. *Bioorganic and Medicinal Chemistry*, **2005**, 13, 6089-93	3.4	20
189	Biodegradation of 2-naphthalensulfonic acid polymers by white-rot fungi: Scale-up into non-sterile packed bed bioreactors. *Chemosphere*, **2016**, 164, 120-127	8.4	20
188	Inhibition of tumor-associated human carbonic anhydrase isozymes IX and XII by a new class of substituted-phenylacetamido aromatic sulfonamides. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 5228-32	3.4	19
187	Structural effect of phenyl ring compared to thiadiazole based adamantyl-sulfonamides on carbonic anhydrase inhibition. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 2314-2318	3.4	19
186	Carbonic anhydrase inhibitors. Inhibition of the cytosolic and tumor-associated carbonic anhydrase isozymes I, II and IX with some 1,3,4-oxadiazole- and 1,2,4-triazole-thiols. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2008**, 23, 101-7	5.6	19
185	Indanesulfonamides as carbonic anhydrase inhibitors and anticonvulsant agents: structure-activity relationship and pharmacological evaluation. *European Journal of Medicinal Chemistry*, **2008**, 43, 2853-60	6.8	19
184	Carbonic anhydrase inhibitors: inhibition of the human isozymes I, II, VA, and IX with a library of substituted difluoromethanesulfonamides. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 5192-6	2.9	19
183	Biophysical investigation of bacterial aromatic extradiol dioxygenases involved in biodegradation processes. *Coordination Chemistry Reviews*, **1995**, 144, 321-345	23.2	19
182	Inhibition of human carbonic anhydrase isoforms I-XIV with sulfonamides incorporating fluorine and 1,3,5-triazine moieties. *Bioorganic and Medicinal Chemistry*, **2013**, 21, 6929-36	3.4	18
181	Carbonic anhydrase inhibitors. Biphenylsulfonamides with inhibitory action towards the transmembrane, tumor-associated isozymes IX possess cytotoxic activity against human colon, lung and breast cancer cell lines. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2009**, 24, 499-505	5.6	18
180	Carbonic anhydrase inhibitors. Diazenylbenzenesulfonamides are potent and selective inhibitors of the tumor-associated isozymes IX and XII over the cytosolic isoforms I and II. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 7093-9	3.4	18
179	A thiabendazole sulfonamide shows potent inhibitory activity against mammalian and nematode alpha-carbonic anhydrases. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 1371-5	2.9	18
178	Carbonic anhydrase activators: activation of the beta-carbonic anhydrases from the pathogenic fungi Candida albicans and Cryptococcus neoformans with amines and amino acids. *Bioorganic and Medicinal Chemistry*, **2010**, 18, 1034-7	3.4	18
177	Carbonic anhydrase inhibitors: 2-substituted-1,3,4-thiadiazole-5-sulfamides act as powerful and selective inhibitors of the mitochondrial isozymes VA and VB over the cytosolic and membrane-associated carbonic anhydrases I, II and IV. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 6332-5	2.9	18
176	Inhibitors of HIV-1 protease: 10 years after. *Expert Opinion on Therapeutic Patents*, **2006**, 16, 1067-1091	6.8	18
175	Carbonic anhydrase inhibitors. Preparation of potent sulfonamides inhibitors incorporating bile acid tails. *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 1551-7	2.9	18
174	Carbonic anhydrase inhibitors. Inhibition of isozymes I, II, IV, V and IX with complex fluorides, chlorides and cyanides. *Bioorganic and Medicinal Chemistry Letters*, **2005**, 15, 1909-13	2.9	18

173	Carbonic anhydrase inhibitors: metal complexes of a sulfanilamide derived Schiff base and their interaction with isozymes I, II and IV. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 499-505		18
172	Activation of carbonic anhydrase isozymes. *Exs*, **2000**, 197-219		18
171	A new class of inhibitors capable of binding both the acidic and alkaline forms of carbonic anhydrase. *Biochimica Et Biophysica Acta (BBA) - Protein Structure*, **1981**, 668, 16-26		18
170	Carbonic anhydrase activators: Activation of the beta-carbonic anhydrase from the pathogenic yeast Candida glabrata with amines and amino acids. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 1701-4	2.9	17
169	Efficient polycyclic aromatic hydrocarbons dihydroxylation in direct micellar systems. *Biotechnology and Bioengineering*, **2001**, 74, 240-8	4.9	17
168	Selective interaction of ferricyanide with cluster I of Clostridium pasteurianum 2[Fe4S4] ferredoxin. *FEBS Letters*, **1993**, 332, 268-72	3.8	17
167	Mono- and di-halogenated histamine, histidine and carnosine derivatives are potent carbonic anhydrase I, II, VII, XII and XIV activators. *Bioorganic and Medicinal Chemistry*, **2014**, 22, 4752-8	3.4	16
166	Benzenesulfonamides incorporating bulky aromatic/heterocyclic tails with potent carbonic anhydrase inhibitory activity. *Bioorganic and Medicinal Chemistry*, **2015**, 23, 7751-64	3.4	16
165	Carbonic anhydrase activators: activation of the beta-carbonic anhydrase Nce103 from the yeast Saccharomyces cerevisiae with amines and amino acids. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 1662-5	2.9	16
164	Quantitative structure/activity relationship for the rate of conversion of C4-substituted catechols by catechol-1,2-dioxygenase from Pseudomonas putida (arvilla) C1. *FEBS Journal*, **1998**, 257, 92-100		16
163	Carbonic anhydrase inhibitors: the inhibition profiles of the human mitochondrial isoforms VA and VB with anions are very different. *Bioorganic and Medicinal Chemistry*, **2007**, 15, 6742-7	3.4	16
162	Carbonic anhydrase inhibitors: Inhibition of the tumor-associated isozymes IX and XII with polyfluorinated aromatic/heterocyclic sulfonamides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2005**, 20, 211-7	5.6	16
161	Carbonic anhydrase inhibitors. Selective inhibition of human tumor-associated isozymes IX and XII and cytosolic isozymes I and II with some substituted-2-mercapto-benzenesulfonamides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2006**, 21, 563-8	5.6	16
160	Carbonic anhydrase inhibitors: transepithelial transport of thioureido sulfonamide inhibitors of the cancer-associated isozyme IX is dependent on efflux transporters. *Bioorganic and Medicinal Chemistry*, **2006**, 14, 2418-27	3.4	16
159	Carbonic anhydrase inhibitors: N-cyanosulfonamides, a new class of high affinity isozyme II and IV inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1999**, 14, 289-306		16
158	Complexes With Biologically Active Ligands. Part 6 Ni(II) Coordination Compounds of Hydrazine and Heterocyclic Sulfonamides as Inhibitors of the Zinc Enzyme Carbonic Anhydrase. *Metal-Based Drugs*, **1996**, 3, 143-8		16
157	Carbonic Anhydrase Interaction With Lipothioars Enites: A Novel Class of Isozymes I and II Inhibitors. *Metal-Based Drugs*, **1996**, 3, 263-8		16
156	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

155	Fluorescent sulfonamide carbonic anhydrase inhibitors incorporating 1,2,3-triazole moieties: Kinetic and X-ray crystallographic studies. *Bioorganic and Medicinal Chemistry*, **2016**, 24, 104-12	3.4	15
154	Anion inhibition studies of two □carbonic anhydrases from Lotus japonicus, LjCAA1 and LjCAA2. *Journal of Inorganic Biochemistry*, **2014**, 136, 67-72	4.2	15
153	Effect of carbon source on the degradation of 2-naphthalenesulfonic acid polymers mixture by Pleurotus ostreatus in petrochemical wastewater. *Process Biochemistry*, **2014**, 49, 2272-2278	4.8	15
152	Carbonic anhydrase inhibitors. The nematode alpha-carbonic anhydrase of Caenorhabditis elegans CAH-4b is highly inhibited by 2-(hydrazinocarbonyl)-3-substituted-phenyl-1H-indole-5-sulfonamides. *Bioorganic and Medicinal Chemistry*, **2009**, 17, 3212-5	3.4	15
151	3-phenyl-1H-indole-5-sulfonamides: structure-based drug design of a promising class of carbonic anhydrase inhibitors. *Current Pharmaceutical Design*, **2010**, 16, 3317-26	3.3	15
150	Functionalized Derivatives of Benzocrown Ethers, II. Supramolecular Complexes of L-Amino Acids as Efficient Activators of the Zinc Enzyme Carbonic Anhydrase. *Liebigs Annalen*, **1997**, 1997, 1853-1859		15
149	Combined action of a bacterial monooxygenase and a fungal laccase for the biodegradation of mono- and poly-aromatic hydrocarbons. *Bioresource Technology*, **2008**, 99, 8353-9	11	15
148	Carbonic anhydrase inhibitors: inhibition of human cytosolic isozyme II and mitochondrial isozyme V with a series of benzene sulfonamide derivatives. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 5703-7	2.9	15
147	Protease inhibitors. Part 12. Synthesis of potent matrix metalloproteinase and bacterial collagenase inhibitors incorporating sulfonylated N-4-nitrobenzyl-beta-alanine hydroxamate moieties. *European Journal of Pharmaceutical Sciences*, **2000**, 11, 69-79	5.1	15
146	Carbonic anhydrase inhibitors. Part 91. Metal complexes of heterocyclic sulfonamides as potential pharmacological agents in the treatment of gastric Acid secretion imbalances. *Metal-Based Drugs*, **2000**, 7, 57-62		15
145	Carbonic anhydrase inhibitors. Part 79. Synthesis of topically acting sulfonamides incorporating GABA moieties in their molecule, with long-lasting intraocular pressure-lowering properties. *European Journal of Pharmaceutical Sciences*, **1999**, 9, 185-99	5.1	15
144	Single crystal ESR study of the Cu(en)3SO4 complex. *Inorganica Chimica Acta*, **1974**, 11, L17-L19	2.7	15
143	Synthesis and inhibition potency of novel ureido benzenesulfonamides incorporating GABA as tumor-associated carbonic anhydrase IX and XII inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2016**, 31, 205-11	5.6	14
142	Peptidomimetics as protein arginine deiminase 4 (PAD4) inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2015**, 30, 466-71	5.6	14
141	Inhibition of V-ATPase and carbonic anhydrases as interference strategy with tumor acidification processes. *Current Pharmaceutical Design*, **2012**, 18, 1407-13	3.3	14
140	XAS characterization of the active sites of novel intradiol ring-cleaving dioxygenases: hydroxyquinol and chlorocatechol dioxygenases. *FEBS Letters*, **1998**, 433, 58-62	3.8	14
139	Carbonic anhydrase inhibitors: the X-ray crystal structure of the adduct of N-hydroxysulfamide with isozyme II explains why this new zinc binding function is effective in the design of potent inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2007**, 17, 2795-801	2.9	14
138	Carbonic anhydrase inhibitors: design of spin-labeled sulfonamides incorporating TEMPO moieties as probes for cytosolic or transmembrane isozymes. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 3475-80	2.9	14

137	Carbonic anhydrase inhibitors. Inhibition of the zinc and cobalt gamma-class enzyme from the archaeon Methanosarcina thermophila with anions. *Bioorganic and Medicinal Chemistry Letters*, **2004**, 14, 3327-31	2.9	14
136	Antimycobacterial activity of 3,4-dichlorophenyl-ureas, N,N-diphenyl-ureas and related derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 425-32		14
135	Carbonic anhydrase inhibitors: the membrane-associated isoform XV is highly inhibited by inorganic anions. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 1155-8	2.9	13
134	Evaluation of an FIA Operated Amperometric Bacterial Biosensor, Based on Pseudomonas Putida F1 for the Detection of Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX). *Analytical Letters*, **2005**, 38, 1531-1547	2.2	13
133	Cyclodextrin complexes of sulfonamide carbonic anhydrase inhibitors as long-lasting topically acting antiglaucoma agents. *Journal of Pharmaceutical Sciences*, **2002**, 91, 2211-9	3.9	13
132	Design of weakly basic thrombin inhibitors incorporating novel P1 binding functions: molecular and X-ray crystallographic studies. *Biochemistry*, **2003**, 42, 9013-21	3.2	13
131	Protease inhibitors: synthesis of bacterial collagenase and matrix metalloproteinase inhibitors incorporating succinyl hydroxamate and iminodiacetic acid hydroxamate moieties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2003**, 18, 233-42	5.6	13
130	Carbonic anhydrase activators: synthesis of high affinity isozymes I, II and IV activators, derivatives of 4-(arylsulfonylureido-amino acyl)ethyl-1H-imidazole. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 471-86		13
129	Polymetallic macromolecules are potential contrast agents of improved efficiency. *Magnetic Resonance in Medicine*, **1994**, 31, 58-60	4.4	13
128	Proton magnetic resonance spectra of six-coordinate iron(II), cobalt(II), and nickel(II) complexes with pyridine-n-oxide and benzamide. *Inorganica Chimica Acta*, **1972**, 6, 185-187	2.7	13
127	Carbonic Anhydrase Activators **2004**, 317-352		13
126	Kinetic and X-ray crystallographic investigations of substituted 2-thio-6-oxo-1,6-dihydropyrimidine-benzenesulfonamides acting as carbonic anhydrase inhibitors. *Bioorganic and Medicinal Chemistry*, **2016**, 24, 3643-8	3.4	12
125	Carbonic anhydrase inhibitors. Synthesis of 2,4,6-trimethylpyridinium derivatives of 2-(hydrazinocarbonyl)-3-aryl-1H-indole-5-sulfonamides acting as potent inhibitors of the tumor-associated isoform IX and XII. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 2931-4	2.9	12
124	Sulfonamides incorporating boroxazolidone moieties are potent inhibitors of the transmembrane, tumor-associated carbonic anhydrase isoforms IX and XII. *Bioorganic and Medicinal Chemistry Letters* , **2011**, 21, 2975-9	2.9	12
123	The antifungal activity of sulfonylamido derivatives of 2-aminophenoxathiin and related compounds. *European Journal of Medicinal Chemistry*, **1998**, 33, 821-830	6.8	12
122	Carbonic anhydrase inhibitors: novel compounds containing S-NH moieties: sulfenamido-sulfonamides, sulfenimido-sulfonamides and their interaction with isozymes I, II and IV. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1998**, 13, 419-42		12
121	Carbonic anhydrase inhibitors, interaction of boron derivatives with isozymes I and II: a new binding site for hydrophobic inhibitors at the entrance of the active site as shown by docking studies. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 125-33		12
120	Paramagnetic Metal Centers in Proteins Investigated through Heterocorrelated NMR Spectroscopy. *Journal of Magnetic Resonance Series B*, **1994**, 104, 95-98		12

119	1H NMR studies of Chromatium vinosum cytochrome cM*Archives of Biochemistry and Biophysics*, **1990**, 282, 84-90	4.1	12
118	Single crystal polarized electronic spectra of a five-coordinate macrocyclic complex of nickel(II). *Inorganica Chimica Acta*, **1977**, 21, 223-227	2.7	12
117	Carbonic Anhydrase Inhibitors in Dermatology **2004**, 303-315		12
116	The metal-binding properties of ovotransferrin. An investigation of cobalt(II) derivatives.. *Journal of Biological Chemistry*, **1986**, 261, 1139-1146	5.4	12
115	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
114	Dioxygen, an unexpected carbonic anhydrase ligand. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2018**, 33, 999-1005	5.6	12
113	Sulfonamide inhibition studies of the carbonic anhydrase from the Antarctic bacterium Colwellia psychrerythraea. *Bioorganic and Medicinal Chemistry Letters*, **2016**, 26, 1253-9	2.9	11
112	The generation of a 1-hydroxy-2-naphthoate 1,2-dioxygenase by single point mutations of salicylate 1,2-dioxygenase--rational design of mutants and the crystal structures of the A85H and W104Y variants. *Journal of Structural Biology*, **2012**, 180, 563-71	3.4	11
111	Enzymatic decolorization of spent textile dyeing baths composed by mixtures of synthetic dyes and additives. *Applied Microbiology and Biotechnology*, **2012**, 96, 395-405	5.7	11
110	Synthesis of rhodamine B-benzenesulfonamide conjugates and their inhibitory activity against human and bacterial/fungal carbonic anhydrases. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 5210-3	2.9	11
109	Carbonic anhydrase activators. Activation of the membrane-associated isoform XV with amino acids and amines. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 3430-3	2.9	11
108	QSAR studies for the inhibition of the transmembrane carbonic anhydrase isozyme XIV with sulfonamides using PRECLAV software. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2009**, 24, 337-49	5.6	11
107	Targeting Bacterial Metalloenzymes: A New Strategy for the Development of Anti-Infective Agents. *Anti-Infective Agents in Medicinal Chemistry*, **2008**, 7, 169-179		11
106	Carbonic anhydrase inhibitors with strong topical antiglaucoma properties incorporating a 4-(2-aminopyrimidin-4-yl-amino)-benzenesulfonamide scaffold. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2002**, 17, 9-18	5.6	11
105	Carbonic anhydrase inhibitors - part 78(#). Synthesis of water-soluble sulfonamides incorporating beta-alanyl moieties, possessing long lasting-intraocular pressure lowering properties via the topical route. *European Journal of Medicinal Chemistry*, **2000**, 35, 309-21	6.8	11
104	Carbonic anhydrase inhibitors part 70. Synthesis and ocular pharmacology of a new class of water-soluble, topically effective intraocular pressure lowering agents derived from nicotinic acid and aromatic/heterocyclic sulfonamides. *European Journal of Medicinal Chemistry*, **1999**, 34, 799-808	6.8	11
103	Carbonic anhydrase inhibitors. Part 60(#). The topical intraocular pressure-lowering properties of metal complexes of a heterocyclic sulfonamide: influence of the metal ion upon biological activity. *European Journal of Medicinal Chemistry*, **1999**, 34, 585-95	6.8	11
102	Protease inhibitors - Part 3. Synthesis of non-basic thrombin inhibitors incorporating pyridinium-sulfanilylguanidine moieties at the P1 site. *European Journal of Medicinal Chemistry*, **1999**, 34, 939-952	6.8	11

101	The unusual behavior of the inhibitor S(+)(1-amino-2-phenylethyl)phosphonic acid towards carboxypeptidase A. *Journal of Inorganic Biochemistry*, **1990**, 40, 227-35	4.2	11
100	Characterization of oxovanadium(IV) substituted bovine carbonic anhydrase B. *Inorganica Chimica Acta*, **1979**, 36, 9-12	2.7	11
99	Carbon-13 longitudinal relaxation times of acetate ion in the presence of metal-substituted bovine carbonic anhydrases. *Journal of the Chemical Society Dalton Transactions*, **1977**, 1962		11
98	Stereochemistry of cobalt(II) in cobalt bovine carbonic anhydrase and its derivatives. *Inorganica Chimica Acta*, **1977**, 22, L23-L24	2.7	11
97	1,3-Oxazole-based selective picomolar inhibitors of cytosolic human carbonic anhydrase II alleviate ocular hypertension in rabbits: Potency is supported by X-ray crystallography of two leads. *Bioorganic and Medicinal Chemistry*, **2017**, 25, 4560-4565	3.4	10
96	Sulfonamide inhibition studies of the □carbonic anhydrase from Drosophila melanogaster. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 2797-801	2.9	10
95	Carbonic anhydrase inhibitors: binding of indanesulfonamides to the human isoform II. *ChemMedChem*, **2008**, 3, 473-7	3.7	10
94	Protease inhibitors: Synthesis of L-alanine hydroxamate sulfonylated derivatives as inhibitors of clostridium histolyticum collagenase. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 111-28		10
93	Crystallization and preliminary crystallographic analysis of the hydroxyquinol 1,2-dioxygenase from Nocardioides simplex 3E: a novel dioxygenase involved in the biodegradation of polychlorinated aromatic compounds. *Acta Crystallographica Section D: Biological Crystallography*, **1999**, 55, 901-3		10
92	Substrate, substrate analogue, and inhibitor interactions with the ferrous active site of catechol 2,3-dioxygenase monitored through XAS studies. *FEBS Letters*, **1994**, 350, 207-12	3.8	10
91	A thermodynamic and spectroscopic study of the complexes of the undecapeptide Substance P, of its N-terminal fragment and of model pentapeptides containing two prolyl residues with copper ions. *Journal of the Chemical Society Dalton Transactions*, **1991**, 1651		10
90	Ligand Field Parameters. *Israel Journal of Chemistry*, **1976**, 15, 189-199	3.4	10
89	Proton relaxation of water solutions containing copper carbonic anhydrase. *Inorganica Chimica Acta* , **1977**, 23, L15-L16	2.7	10
88	Cyclodextrin complexation highly enhances efficacy of arylsulfonylureido benzenesulfonamide carbonic anhydrase inhibitors as a topical antiglaucoma agents. *Bioorganic and Medicinal Chemistry*, **2015**, 23, 6223-7	3.4	9
87	Structural modulation of the biological activity of gold nanoparticles functionalized with a carbonic anhydrase inhibitor. *European Physical Journal E*, **2013**, 36, 48	1.5	9
86	Zinc Binding Functions in the Design of Carbonic Anhydrase Inhibitors39-72		9
85	Carbonic anhydrase inhibitors. Interaction of the antitumor sulfamate EMD 486019 with twelve mammalian carbonic anhydrase isoforms: Kinetic and X-ray crystallographic studies. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 4282-6	2.9	9
84	Crystal analysis of aromatic sulfonamide binding to native and (Zn)2 adduct of human carbonic anhydrase I Michigan 1. *Inorganica Chimica Acta*, **2002**, 339, 135-144	2.7	9

83	Carbonic anhydrase inhibitors: allylsulfonamide, styrene sulfonamide, N-allyl sulfonamides and some of their Si, Ge, and B derivatives. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 475-89		9
82	Arylsulfonyl-N,N-dialkyl-dithiocarbamates as tumor cell growth inhibitors: novel agents targeting beta-tubulin?. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 55-63		9
81	Direct micellar systems as a tool to improve the efficiency of aromatic substrate conversion for fine chemicals production. *Journal of Inorganic Biochemistry*, **2000**, 79, 103-8	4.2	9
80	Carbonic Anhydrase Inhibitors Part 72 Synthesis and Antiglaucoma Properties of Metal Complexes of p-Fluorobenzolamide. *Metal-Based Drugs*, **1999**, 6, 67-73		9
79	Interactions between alpha-amino acids and cobalt(II) bovine-carbonic anhydrase. *Bioinorganic Chemistry*, **1977**, 7, 225-31		9
78	A 31P NMR study of phosphate in presence of cobalt(II)- and copper(II)- substituted bovine carbonic anhydrase B. *FEBS Letters*, **1978**, 93, 251-4	3.8	9
77	X-ray structures of 4-chlorocatechol 1,2-dioxygenase adducts with substituted catechols: new perspectives in the molecular basis of intradiol ring cleaving dioxygenases specificity. *Journal of Structural Biology*, **2013**, 181, 274-82	3.4	8
76	1H NMR ganglioside ceramide resonance region on the differential diagnosis of low and high malignancy of brain gliomas. *Cellular and Molecular Neurobiology*, **1997**, 17, 521-35	4.6	8
75	Carbonic anhydrase inhibitors: aliphatic N-phosphorylated sulfamates--a novel zinc-anchoring group leading to nanomolar inhibitors. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2004**, 19, 275-8	5.6	8
74	Redox state and carbonic anhydrase isozyme IX expression in human renal cell carcinoma: biochemical and morphological investigations. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2004**, 19, 287-91	5.6	8
73	Carbonic anhydrase inhibitors; phosphoryl-sulfonamides--a new class of high affinity inhibitors of isozymes I and II. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 297-310		8
72	Density functional description of the early stages of the dioxygenation of [(MeC(CH2PPh2)3)M(catecholate)]+ complexes [M = Co(III), Ir(III)]: toward a rationalization of the catalytic mechanism of ring-opening dioxygenases. *Inorganic Chemistry*, **2000**, 39, 1418-25	5.1	8
71	Carbonic anhydrase inhibitors: synthesis and inhibition against isozymes I, II and IV of topically acting antiglaucoma sulfonamides incorporating cis-5-norbornene-endo-3-carboxy-2-carboxamido moieties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 113-23		8
70	Carbonic Anhydrase Inhibitors. Part 55 Metal Complexes of 1,3,4-Thiadiazole-2-Sulfonamide Derivatives: In Vitro Inhibition Studies With Carbonic Anhydrase Isozymes I, II and IV. *Metal-Based Drugs*, **1998**, 5, 103-14		8
69	EXAFS investigation on the iron(III) binding sites of hen phosvitin. *Inorganic Chemistry*, **1990**, 29, 124-127	5.1	8
68	CD and EXAFS study of the interaction between phosvitin and copper(II) ions. *Journal of Inorganic Biochemistry*, **1988**, 34, 221-239	4.2	8
67	The electronic spectra of cobalt(II) bovine carbonic anhydrase. *Inorganica Chimica Acta*, **1979**, 36, L431-L432		8
66	Different behavior of sulfonamides with respect to copper-substituted bovine and human carbonic anhydrases. *Journal of Inorganic Biochemistry*, **1982**, 16, 155-60	4.2	8

65	Evidence of exchangeable protons in the acidic form of manganese(II) bovine carbonic anhydrase B. *FEBS Letters*, **1978**, 87, 92-4	3.8	8
64	Phenylethynylbenzenesulfonamide regioisomers strongly and selectively inhibit the transmembrane, tumor-associated carbonic anhydrase isoforms IX and XII over the cytosolic isoforms I and II. *Bioorganic and Medicinal Chemistry Letters*, **2011**, 21, 5892-6	2.9	7
63	Purification and inhibition studies with anions and sulfonamides of an □carbonic anhydrase from the Antarctic seal Leptonychotes weddellii. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 1847-51	3.4	7
62	Complexes with biologically active ligands. Part 9 metal complexes of 5-benzoylamino- and 5-(3-nitrobenzoyl-amino)-1,3,4-thiadiazole-2-sulfonamide as carbonic anhydrase inhibitors. *Metal-Based Drugs*, **1997**, 4, 1-7		7
61	Carbonic anhydrase inhibitors. Inhibition of human tumor-associated isozymes IX and cytosolic isozymes I and II with some 1,3,4-oxadiazole-thiols. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2006**, 21, 351-9	5.6	7
60	Nonionic Micelles Promote Whole Cell Bioconversion of Aromatic Substrates in an Aqueous Environment. *Langmuir*, **2002**, 18, 6015-6020	4	7
59	Sulfonylamido derivatives of 2-aminophenoxathiin-10,10-dioxide and related compounds possess antifungal action due to the possible inhibition of lanosterol-14-alpha-demethylase. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1998**, 13, 291-310		7
58	Characterization of the biological conversion of naphthalene to (+)-cis-(1R,2S)-dihydroxy-1,2-dihydronaphthalene in direct micellar systems. *Journal of Molecular Catalysis B: Enzymatic*, **1999**, 7, 263-272		7
57	Application of 2D 1H NMR spectroscopy to the study of the brain, spinal cord, and sciatic nerve. *Molecular and Chemical Neuropathology*, **1993**, 19, 1-13		7
56	Sulfonamide carbonic anhydrase inhibitors: Zinc coordination and tail effects influence inhibitory efficacy and selectivity for different isoforms. *Inorganica Chimica Acta*, **2018**, 470, 128-132	2.7	6
55	Drug Design Studies of Carbonic Anhydrase Activators473-486		6
54	Carbonic anhydrase inhibitors: the very weak inhibitors dithiothreitol, beta-mercaptoethanol, tris(carboxyethyl)phosphine and threitol interfere with the binding of sulfonamides to isozymes II and IX. *Bioorganic and Medicinal Chemistry Letters*, **2008**, 18, 1898-903	2.9	6
53	Density functional characterization of the chemoselective oxidation of catechol by using molecular oxygen: thermodynamics of the reaction between [(triphos)Ir(dtbc)]+ and O2. *Chemistry - A European Journal*, **2003**, 9, 3015-23	4.8	6
52	EXAFS studies of Fe(III)-phosvitin at high metal to protein ratios. *BioMetals*, **1994**, 7, 104-8	3.4	6
51	The role of the active site amino acid residues on the catalytic activity of Cu2Zn2SOD. *Molecular and Chemical Neuropathology*, **1993**, 19, 193-204		6
50	Ytterbium(III) as a CD probe for the investigation of the metal binding sites of transferrins. *Inorganica Chimica Acta*, **1986**, 124, L15-L17	2.7	6
49	Carbonic Anhydrase Activators		6
48	Carbonic anhydrase inhibitors: Gd(III) complexes of DOTA- and TETA-sulfonamide conjugates targeting the tumor associated carbonic anhydrase isozymes IX and XII. *New Journal of Chemistry*, **2010**, 34, 2139	3.6	5

47	Experimental and theoretical affinity studies of substituted phenols to chlorocatechol 1,2-dioxygenases: A step toward the comprehension of inhibitor/substrate binding to intradiol dioxygenases. *Journal of Molecular Catalysis B: Enzymatic*, **2010**, 64, 53-59		5
46	Carbonic anhydrase inhibitors. Inhibition of red blood cell ostrich (Struthio camelus) carbonic anhydrase with a series of aromatic and heterocyclic sulfonamides. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2005**, 20, 383-7	5.6	5
45	Crystallization and preliminary structure analysis of the blue laccase from the ligninolytic fungus Panus tigrinus. *Acta Crystallographica Section F: Structural Biology Communications*, **2005**, 61, 205-7		5
44	Functionalized Derivatives of Benzo-Crown Ethers. Part 4. Antifungal Macrocyclic Supramolecular Complexes of Transition Metal Ions Acting as Lanosterol-14-alpha-Demethylase Ihibitors. *Metal-Based Drugs*, **1999**, 6, 101-10		5
43	Copper-cobalt superoxide dismutase: A re-examination of the 1H NMR spectrum through a novel selectively deuteriated derivative. *Magnetic Resonance in Chemistry*, **1993**, 31, S17-S22	2.1	5
42	Investigation of zinc-deprived bovine superoxide dismutase. *Inorganica Chimica Acta*, **1984**, 91, 109-111	2.7	5
41	Polyamines and Carbonic Anhydrases. *Molecules*, **2016**, 21,	4.8	5
40	Crystallization and preliminary X-ray crystallographic analysis of the small subunit of the heterodimeric laccase POXA3b from Pleurotus ostreatus. *Acta Crystallographica Section F, Structural Biology Communications*, **2014**, 70, 76-9	1.1	4
39	INTERACTION OF ISOZYMES I AND II OF CARBONIC ANHYDRASE WITH Ge(IV) AND Sb(lll) DERIVATIVES. *Main Group Metal Chemistry*, **1997**, 20,	1.6	4
38	Preliminary crystallographic analysis of 3-chlorocatechol 1,2-dioxygenase of a new modified ortho-pathway from the Gram-positive Rhodococcus opacus 1CP grown on 2-chlorophenol. *Acta Crystallographica Section D: Biological Crystallography*, **2003**, 59, 188-90		4
37	Protease inhibitors. Part 2. Weakly basic thrombin inhibitors incorporating sulfonyl-aminoguanidine moieties as S1 anchoring groups: synthesis and structure-activity correlations. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 235-64		4
36	Carbonic Anhydrase Activity Modulators: Synthesis of Inhibitors and Activators Incorporating 2-substituted-thiazol-4-yl-methyl Scaffolds. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 351-358		4
35	Investigation of the copper?magnesium?alkaline phosphatase system. *Inorganica Chimica Acta*, **1983**, 78, 19-22	2.7	4
34	Intramolecular ring-stacking interaction between caffeine and bis(1,10-phenanthroline)copper(II) ion: 1H NMR and calorimetric investigations. *Inorganica Chimica Acta*, **1981**, 56, 73-77	2.7	4
33	Cooperative phenomena in polynuclear metalloproteins. *Inorganica Chimica Acta*, **1982**, 62, 15-22	2.7	4
32	A comment on the Jahn-Teller effect in the complex K2PbCu(NO2)6. *Inorganica Chimica Acta*, **1975**, 13, L5-L6	2.7	4
31	Single crystal polarized electronic spectra of the complex bis(N-t-butylpyrrole-2-carbaldimino)cobalt(II). *Inorganica Chimica Acta*, **1975**, 13, 145-148	2.7	4
30	13C Nmr spectra of hexakis pyridine-N-oxide cobalt(II) and nickel(II) complexes. *Inorganica Chimica Acta*, **1976**, 19, 201-202	2.7	4

29	31P NMR spectra of paramagnetic MBr2 (OPPh3)2 complexes. A breakdown in the validity of the Solomon-Bloembergen equations. *Inorganic and Nuclear Chemistry Letters*, **1979**, 15, 89-91		4
28	Crystallization and preliminary X-ray crystallographic analysis of hydroquinone dioxygenase from Sphingomonas sp. TTNP3. *Acta Crystallographica Section F: Structural Biology Communications*, **2012**, 68, 588-90		3
27	Carbonic Anhydrase Activators. Part 19 Spectroscopic and Kinetic Investigations for the Interaction of Isozymes I and II With Primary Amines. *Metal-Based Drugs*, **1997**, 4, 221-7		3
26	Carbonic anhydrase inhibitors. Part 54: metal complexes of heterocyclic sulfonamides: a new class of antiglaucoma agents. *Metal-Based Drugs*, **1997**, 4, 307-15		3
25	The antifungal activity of 2,2′-diamino-4,4′-dithiazole derivatives is due to the possible inhibition of lanosterol-14-alpha-demethylase. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **1998**, 14, 49-68		3
24	4-Chlorocatechol 1,2-dioxygenase from the chlorophenol-utilizing Gram-positive Rhodococcus opacus 1CP: crystallization and preliminary crystallographic analysis. *Acta Crystallographica Section D: Biological Crystallography*, **2002**, 58, 1074-6		3
23	The antifungal activity of sulfonylated/carboxylated derivatives of dibenzo-1,4-dioxine-2-acetyloxime may be due to inhibition of lanosterol-14alpha-demethylase. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 557-69		3
22	Protease inhibitors, part 13: Specific, weakly basic thrombin inhibitors incorporating sulfonyl dicyandiamide moieties in their structure. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2001**, 16, 1-13		3
21	Synthesis and antifungal activity of metal complexes containing dichloro-tetramorpholino-cyclophosphazatriene. *Metal-Based Drugs*, **1998**, 5, 287-94		3
20	Complexes with biologically active ligands. Part 11. Synthesis and carbonic anhydrase inhibitory activity of metal complexes of 4,5-disubstituted-3-mercapto-1,2,4-triazole derivatives. *Metal-Based Drugs*, **1998**, 5, 11-8		3
19	INHIBITION OF CARBONIC ANHYDRASE ISOZYMES I, II AND IV WITH ARSINOLIPIDS. *Main Group Metal Chemistry*, **1999**, 22,	1.6	3
18	Complexes between pilocarpine and cobalt(II), nickel(II), copper(II), and zinc(II) ions. *Journal of Pharmaceutical Sciences*, **1980**, 69, 1220-2	3.9	3
17	X-ray and ESR investigation of an elongated octahedral tris-(1, 2-diaminoethane) copper (II) complex. *Solid State Communications*, **1978**, 26, 749-751	1.6	3
16	Structural basis for the substrate specificity and the absence of dehalogenation activity in 2-chloromuconate cycloisomerase from Rhodococcus opacus 1CP. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2014**, 1844, 1541-9	4	2
15	X-ray crystallographic and molecular docking studies on a unique chloromuconolactone dehalogenase from Rhodococcus opacus 1CP. *Journal of Structural Biology*, **2013**, 182, 44-50	3.4	2
14	Carbonic anhydrase inhibitors. N-cyanomethylsulfonamides--a new zinc binding group in the design of inhibitors targeting cytosolic and membrane-anchored isoforms. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2006**, 21, 477-81	5.6	2
13	Protease inhibitors: Part 4. Synthesis of weakly basic thrombin inhibitors incorporating pyridinium-sulfanilylaminoguanidine moieties. *Journal of Enzyme Inhibition and Medicinal Chemistry*, **2000**, 15, 335-56		2
12	Multinuclear NMR investigation of the metal binding sites of transferrins. *Journal of Molecular Structure*, **1984**, 113, 191-200	3.4	2

11	Some Structural Aspects of Carbonic Anhydrase. *Proceedings in Life Sciences*, **1980**, 151-153		2
10	The crystal structures of native hydroquinone 1,2-dioxygenase from Sphingomonas sp. TTNP3 and of substrate and inhibitor complexes. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2017**, 1865, 520-530	4	1
9	Mechanism of action of carbonic anhydrase inhibitors **2019**, 245-255		1
8	INHIBITION OF CARBONIC ANHYDRASE ISOZYMES I, II AND IV WITH ARSANILIC ACID DERIVATIVES. *Main Group Metal Chemistry*, **1998**, 21,	1.6	1
7	Iron-sulfur Proteins: Part II Valence-specific Assignment in Oxidized Hipip through 1H NMR Spectroscopy. *Topics in Molecular Organization and Engineering*, **1994**, 143-157		1
6	Treatment of NSAPs-rich petrochemical wastewaters using a two-stage combined process of fungi and activated sludge. *Environmental Technology (United Kingdom)*, **2021**, 42, 3783-3796	2.6	0
5	Heterocyclic urea derivatives and methods of use thereof (WO2010142978). *Expert Opinion on Therapeutic Patents*, **2012**, 22, 193-7	6.8	
4	Heterocyclic compounds and their uses: a patent evaluation of WO2010151735A2. *Expert Opinion on Therapeutic Patents*, **2011**, 21, 803-6	6.8	
3	spectroscopic Investigation on a New Class of Inhibitors which Bind either the Acidic or Basic Form of Cobalt Substituted Carbonic Anhydrase. *Inorganica Chimica Acta*, **1980**, 40, X86	2.7	
2	Predictive Models for the Efficacy of Bioremediation **1997**, 25-37		
1	Next-generation polyamine human carbonic anhydrase inhibitors **2014**, 68-81		