Walter F Boron

List of Publications by Year in Descending Order

Source: https://exaly.com/author-pdf/9451366/walter-f-boron-publications-by-year.pdf

Version: 2024-04-20

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

12,662 204 55 110 h-index g-index citations papers 6.25 13,580 234 7.4 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
204	Carbon dioxide transport across membranes. <i>Interface Focus</i> , 2021 , 11, 20200090	3.9	5
203	Multiple acid-base and electrolyte disturbances upregulate NBCn1, NBCn2, IRBIT and L-IRBIT in the mTAL. <i>Journal of Physiology</i> , 2020 , 598, 3395-3415	3.9	3
202	Computational model of electrode-induced microenvironmental effects on pH measurements near a cell membrane. <i>Multiscale Modeling and Simulation</i> , 2020 , 18, 1053-1075	1.8	O
201	Aquaporin-7: A Dynamic Aquaglyceroporin With Greater Water and Glycerol Permeability Than Its Bacterial Homolog GlpF. <i>Frontiers in Physiology</i> , 2020 , 11, 728	4.6	13
200	Characterization of Sodium Bicarbonate Transporters NBCe1 and NBCn1 as CO2 channels. <i>FASEB Journal</i> , 2020 , 34, 1-1	0.9	
199	Quantitation of a neutral-buoyancy assay (NBA) to estimate transmembrane N2 flux. <i>FASEB Journal</i> , 2020 , 34, 1-1	0.9	1
198	Carbonic anhydrases enhance activity of endogenous Na-H exchangers and not the electrogenic Na/HCO cotransporter NBCe1-A, expressed in Xenopus oocytes. <i>Journal of Physiology</i> , 2020 , 598, 5821-	·5836	8
197	Increased cerebral vascularization and decreased water exchange across the blood-brain barrier in aquaporin-4 knockout mice. <i>PLoS ONE</i> , 2019 , 14, e0218415	3.7	13
196	Role of Carbonic Anhydrases and Inhibitors in Acid-Base Physiology: Insights from Mathematical Modeling. <i>International Journal of Molecular Sciences</i> , 2019 , 20,	6.3	20
195	Expression, Localization, and Effect of High Salt Intake on Electroneutral Na/HCO Cotransporter NBCn2 in Rat Small Intestine: Implication in Intestinal NaCl Absorption. <i>Frontiers in Physiology</i> , 2019 , 10, 1334	4.6	5
194	Effect of inhibitors on oxygen permeability of wild type and knockout mouse red blood cells. <i>FASEB Journal</i> , 2019 , 33, 823.5	0.9	
193	Investigation of the Intracellular-pH (pHi) Dependence of the Electrogenic Sodium Bicarbonate Cotransporter NBCe1-A. <i>FASEB Journal</i> , 2019 , 33, 544.2	0.9	O
192	Effect of aging on oxygen permeability of wild type (WT) and AQP1-RhAG double knockout (dKO) mouse red blood cells. <i>FASEB Journal</i> , 2019 , 33, 823.4	0.9	
191	Evaluating Physiological Interactions between the Electrogenic Na/HCO3 Transporter NBCe1-B and its Cytosolic Binding Partner IRBIT. <i>FASEB Journal</i> , 2019 , 33, 544.6	0.9	
190	Functionalized Phenylbenzamides Inhibit Aquaporin-4 Reducing Cerebral Edema and Improving Outcome in Two Models of CNS Injury. <i>Neuroscience</i> , 2019 , 404, 484-498	3.9	20
189	Linaclotide improves gastrointestinal transit in cystic fibrosis mice by inhibiting sodium/hydrogen exchanger 3. <i>American Journal of Physiology - Renal Physiology</i> , 2018 , 315, G868-G878	5.1	9
188	Sensing and transduction of acid-base disturbances by receptor protein tyrosine phosphatase [] <i>FASEB Journal</i> , 2018 , 32, 864.5	0.9	

(2014-2018)

187	Exploring the autoinhibitory domain of the electrogenic Na /HCO transporter NBCe1-B, from residues 28 to 62. <i>Journal of Physiology</i> , 2018 , 596, 3637-3653	3.9	6
186	Na/HCO Cotransporter NBCn2 Mediates HCO Reclamation in the Apical Membrane of Renal Proximal Tubules. <i>Journal of the American Society of Nephrology: JASN</i> , 2017 , 28, 2409-2419	12.7	20
185	Role of Cl -HCO exchanger AE3 in intracellular pH homeostasis in cultured murine hippocampal neurons, and in crosstalk to adjacent astrocytes. <i>Journal of Physiology</i> , 2017 , 595, 93-124	3.9	8
184	A Novel Stopped-Flow Assay for Quantitating Carbonic-Anhydrase Activity and Assessing Red-Blood-Cell Hemolysis. <i>Frontiers in Physiology</i> , 2017 , 8, 169	4.6	8
183	Extracellular HCO3- is sensed by mouse cerebral arteries: Regulation of tone by receptor protein tyrosine phosphatase []Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 965-80	7.3	27
182	Reconstitution of CO2 Regulation of SLAC1 Anion Channel and Function of CO2-Permeable PIP2;1 Aquaporin as CARBONIC ANHYDRASE4 Interactor. <i>Plant Cell</i> , 2016 , 28, 568-82	11.6	88
181	Role of Receptor Protein Tyrosine Phosphatase In Sensing Extracellular CO2 and HCO3. <i>Journal of the American Society of Nephrology: JASN</i> , 2016 , 27, 2616-21	12.7	20
180	Is the electrogenic Na/HCO3 cotransporter a CO2 channel?. FASEB Journal, 2016, 30, 971.2	0.9	2
179	Distinct Cellular Locations of Carbonic Anhydrases Mediate Carbon Dioxide Control of Stomatal Movements. <i>Plant Physiology</i> , 2015 , 169, 1168-78	6.6	59
178	Effect of acute acid-base disturbances on the phosphorylation of phospholipase C-II and Erk1/2 in the renal proximal tubule. <i>Physiological Reports</i> , 2015 , 3, e12280	2.6	5
177	Rebuttal from Gordon J. Cooper, Rossana Occhipinti and Walter F. Boron. <i>Journal of Physiology</i> , 2015 , 593, 5033	3.9	2
176	CrossTalk proposal: Physiological CO2 exchange can depend on membrane channels. <i>Journal of Physiology</i> , 2015 , 593, 5025-8	3.9	10
175	Mathematical modeling of acid-base physiology. <i>Progress in Biophysics and Molecular Biology</i> , 2015 , 117, 43-58	4.7	28
174	Novel pH-dependent Astrocyte-Neuron Crosstalk in Hippocampal CA1 Region, Not Observed After the Knockout of the Anion Exchanger 3 (AE3). <i>FASEB Journal</i> , 2015 , 29, 668.2	0.9	
173	NH3 Permeability versus CO2 Permeability: Insights from Mathematical Modeling. <i>FASEB Journal</i> , 2015 , 29, 668.3	0.9	
172	Evidence from mathematical modeling that carbonic anhydrase II and IV enhance CO2 fluxes across Xenopus oocyte plasma membranes. <i>American Journal of Physiology - Cell Physiology</i> , 2014 , 307, C841-	58 ^{5.4}	13
171	Effects of metabolic acidosis on intracellular pH responses in multiple cell types. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2014 , 307, R1413-27	3.2	17
170	NBCe1 (SLC4A4) a potential pH regulator in enamel organ cells during enamel development in the mouse. <i>Cell and Tissue Research</i> , 2014 , 358, 433-42	4.2	40

169	Evidence from simultaneous intracellular- and surface-pH transients that carbonic anhydrase II enhances CO2 fluxes across Xenopus oocyte plasma membranes. <i>American Journal of Physiology - Cell Physiology</i> , 2014 , 307, C791-813	5.4	13
168	Evidence from simultaneous intracellular- and surface-pH transients that carbonic anhydrase IV enhances CO2 fluxes across Xenopus oocyte plasma membranes. <i>American Journal of Physiology - Cell Physiology</i> , 2014 , 307, C814-40	5.4	16
167	Intracellular pH regulation by acid-base transporters in mammalian neurons. <i>Frontiers in Physiology</i> , 2014 , 5, 43	4.6	104
166	Comment on "Local impermeant anions establish the neuronal chloride concentration". <i>Science</i> , 2014 , 345, 1130	33.3	21
165	Distinguishing HCO3- from CO3= transport by the electrogenic Na/HCO3 cotransporter NBCe1 (SLC4A4) (1098.7). <i>FASEB Journal</i> , 2014 , 28, 1098.7	0.9	4
164	Relative COINHIpermeabilities of human RhAG, RhBG and RhCG. <i>Journal of Membrane Biology</i> , 2013 , 246, 915-26	2.3	28
163	Effects of optional structural elements, including two alternative amino termini and a new splicing cassette IV, on the function of the sodium-bicarbonate cotransporter NBCn1 (SLC4A7). <i>Journal of Physiology</i> , 2013 , 591, 4983-5004	3.9	12
162	Mutation of a single amino acid converts the human water channel aquaporin 5 into an anion channel. <i>American Journal of Physiology - Cell Physiology</i> , 2013 , 305, C663-72	5.4	14
161	Control of Intracellular pH 2013 , 1773-1835		7
160	Effect of acute acid-base disturbances on ErbB1/2 tyrosine phosphorylation in rabbit renal proximal tubules. <i>American Journal of Physiology - Renal Physiology</i> , 2013 , 305, F1747-64	4.3	7
159	Immunocytochemical identification of electroneutral Na+-coupled HCO½ transporters in freshly dissociated mouse medullary raph[heurons. <i>Neuroscience</i> , 2013 , 246, 451-67	3.9	4
158	The SLC4 family of bicarbonate (HCOZ) transporters. <i>Molecular Aspects of Medicine</i> , 2013 , 34, 159-82	16.7	210
157	Early life hypoxic or hypoxic/hypercapnic stress alters acute ventilatory sensitivity in adult mice. <i>Advances in Experimental Medicine and Biology</i> , 2013 , 765, 351-355	3.6	
156	Substrate specificity of the electrogenic sodium/bicarbonate cotransporter NBCe1-A (SLC4A4, variant A) from humans and rabbits. <i>American Journal of Physiology - Renal Physiology</i> , 2013 , 304, F883-9	9 4 .3	18
155	Relative CO(2)/NH(3) selectivities of mammalian aquaporins 0-9. <i>American Journal of Physiology - Cell Physiology</i> , 2013 , 304, C985-94	5.4	71
154	Monitoring ion activities in and around cells using ion-selective liquid-membrane microelectrodes. <i>Sensors</i> , 2013 , 13, 984-1003	3.8	21
153	Movement of NHIthrough the human urea transporter B: a new gas channel. <i>American Journal of Physiology - Renal Physiology</i> , 2013 , 304, F1447-57	4.3	26
152	X-ray diffraction studies on merohedrally twinned 🛭 -62NtNBCe1-A crystals of the sodium/bicarbonate cotransporter. <i>Acta Crystallographica Section F: Structural Biology Communications</i> 2013 69, 796.9		2

(2011-2013)

151	The divergence, actions, roles, and relatives of sodium-coupled bicarbonate transporters. <i>Physiological Reviews</i> , 2013 , 93, 803-959	47.9	188
150	Splice cassette II of Na+,HCO3(-) cotransporter NBCn1 (slc4a7) interacts with calcineurin A: implications for transporter activity and intracellular pH control during rat artery contractions. <i>Journal of Biological Chemistry</i> , 2013 , 288, 8146-8155	5.4	25
149	A reaction-diffusion model of CO2 influx into an oocyte. <i>Journal of Theoretical Biology</i> , 2012 , 309, 185-2	03 3	24
148	HCO(3)(-)-independent conductance with a mutant Na(+)/HCO(3)(-) cotransporter (SLC4A4) in a case of proximal renal tubular acidosis with hypokalaemic paralysis. <i>Journal of Physiology</i> , 2012 , 590, 2009-34	3.9	19
147	A Fond Farewell and Good Luck to Gary Sieck. <i>Physiology</i> , 2012 , 27, 114-114	9.8	
146	Effect of simultaneously replacing putative TM6 and TM12 of human NBCe1-A with those from NBCn1 on surface abundance in Xenopus oocytes. <i>Journal of Membrane Biology</i> , 2012 , 245, 131-40	2.3	9
145	Relief of autoinhibition of the electrogenic Na-HCO(3) [corrected] cotransporter NBCe1-B: role of IRBIT vs.amino-terminal truncation. <i>American Journal of Physiology - Cell Physiology</i> , 2012 , 302, C518-26	5.4	49
144	Mathematical modeling of the role of carbonic anhydrase II and IV on the influx of CO2 in a Xenopus oocyte. <i>FASEB Journal</i> , 2012 , 26, 882.9	0.9	
143	Neuronal and non-neuronal steady-state pHi and recovery from NH4+-induced acid loads. <i>FASEB Journal</i> , 2012 , 26, 901.5	0.9	
142	The role of carbonic anhydrase II on HCO3IInitiated transport through the SLC4A4 transporter NBCe1A. <i>FASEB Journal</i> , 2012 , 26, 882.4	0.9	
141	Immunocytochemical techniques identify Na+-coupled HCO3[transporters (NCBTs) in chemosensitive neurons of the Medullary Raph[]FASEB Journal, 2012, 26, 882.7	0.9	
140	Functional reassembly of NBCe1-A from co-expressed cytosolic and transmembrane domains. <i>FASEB Journal</i> , 2012 , 26, 882.2	0.9	1
139	Exploring CO2 permeability of plant aquaporins. FASEB Journal, 2012, 26, 1103.8	0.9	
138	Blood-Brain Barrier Na/HCO3 Cotransporters: Evidence for a Role in Ischemia-induced Brain Na Uptake. <i>FASEB Journal</i> , 2012 , 26, 1152.22	0.9	
137	Role of an extracellular loop in determining the stoichiometry of Na+-HCO🛚 cotransporters. Journal of Physiology, 2011 , 589, 877-90	3.9	22
136	Expression and distribution of NBCn2 (Slc4a10) splice variants in mouse brain: cloning of novel variant NBCn2-D. <i>Brain Research</i> , 2011 , 1390, 33-40	3.7	7
135	Intrinsic CO2 permeability of cell membranes and potential biological relevance of CO2 channels. <i>ChemPhysChem</i> , 2011 , 12, 1017-9	3.2	47
134	Exploring the CO2 permeability of cysteine-less human aquaporin-5 (hAQP5) with single introduced Cys residues. <i>FASEB Journal</i> , 2011 , 25, 1039.27	0.9	

133	Relative CO2/NH3 permeabilities of several members of the mammalian Aquaporin family: bAQP0, hAQP1, hAQP2, rAQP3, rAQP4-M1, rAQP4-M23, and hAQP8. <i>FASEB Journal</i> , 2011 , 25, 1040.5	0.9	1
132	Relative CO2/NH3 permeabilities of human RhAG, RhBG, and RhCG. FASEB Journal, 2011 , 25, 1040.4	0.9	2
131	Exploring central-pore amino-acid residues important for CO2 permeation through human aquaporin-5 (AQP5). <i>FASEB Journal</i> , 2011 , 25, 1039.5	0.9	
130	Evidence that DIDS crosslinks Aquaporin 1 monomers. <i>FASEB Journal</i> , 2011 , 25, 1039.26	0.9	1
129	A Reaction-Diffusion Model of Acid-Base Balance in a Xenopus Oocyte. FASEB Journal, 2011, 25, 1129.4	0.9	
128	Sharpey-Schafer lecture: gas channels. <i>Experimental Physiology</i> , 2010 , 95, 1107-30	2.4	74
127	Cloning and characterization of a zebrafish homologue of human AQP1: a bifunctional water and gas channel. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2010 , 299, R1163-74	3.2	29
126	Distribution of NBCn2 (SLC4A10) splice variants in mouse brain. <i>Neuroscience</i> , 2010 , 169, 951-64	3.9	16
125	Using fluorometry and ion-sensitive microelectrodes to study the functional expression of heterologously-expressed ion channels and transporters in Xenopus oocytes. <i>Methods</i> , 2010 , 51, 134-45	₅ 4.6	42
124	Evaluating the role of carbonic anhydrases in the transport of HCO3related species. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2010 , 1804, 410-21	4	64
123	Acid-base transport by the renal proximal tubule. <i>Journal of Nephrology</i> , 2010 , 23 Suppl 16, S4-18	4.8	33
122	In Xenopus oocytes, stimulation of the electrogenic Na/HCO3 transporter NBCe1 by IRBIT can be explained by relief of transporter autoinhibition and is unaffected by endogenous phosphatases <i>FASEB Journal</i> , 2010 , 24, 815.7	0.9	
121	Effect of DIDS and pCMBS on the CO2 permeability of human aquaporin-5 (AQP5). <i>FASEB Journal</i> , 2010 , 24, 610.5	0.9	1
120	Effect of knocking out receptor protein tyrosine phosphatase [RPTP] in the CO2-induced stimulation of HCO3 reabsorption by mouse renal proximal tubules. <i>FASEB Journal</i> , 2010 , 24, 1024.7	0.9	3
119	Secretagogue stimulation enhances NBCe1 (electrogenic Na(+)/HCO(3)(-) cotransporter) surface expression in murine colonic crypts. <i>American Journal of Physiology - Renal Physiology</i> , 2009 , 297, G1223	-5:7	23
118	Relative CO2/NH3 selectivities of AQP1, AQP4, AQP5, AmtB, and RhAG. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009 , 106, 5406-11	11.5	207
117	Modular structure of sodium-coupled bicarbonate transporters. <i>Journal of Experimental Biology</i> , 2009 , 212, 1697-706	3	108
116	The use of extracellular, ion-selective microelectrodes to study the function of heterologously expressed transporters in Xenopus oocytes. <i>American Journal of Physiology - Cell Physiology</i> , 2009 , 296, C1243; author reply C1244	5.4	2

(2008-2009)

115	Cloning, localization, and functional expression of the electrogenic Na+ bicarbonate cotransporter (NBCe1) from zebrafish. <i>American Journal of Physiology - Cell Physiology</i> , 2009 , 297, C865-75	5.4	21	
114	Concentration-dependent effects on intracellular and surface pH of exposing Xenopus oocytes to solutions containing NH3/NH4(+). <i>Journal of Membrane Biology</i> , 2009 , 228, 15-31	2.3	30	
113	ACID-BASE PHYSIOLOGY 2009 , 652-671		1	
112	Physiology On Our Fifth Anniversary. <i>Physiology</i> , 2009 , 24, 204-205	9.8		
111	Effects of acute hypoxia on intracellular-pH regulation in astrocytes cultured from rat hippocampus. <i>Brain Research</i> , 2008 , 1193, 143-52	3.7	20	
110	Effects of chronic continuous hypoxia on the expression of SLC4A8 (NDCBE) in neonatal versus adult mouse brain. <i>Brain Research</i> , 2008 , 1238, 85-92	3.7	20	
109	Use of a new polyclonal antibody to study the distribution and glycosylation of the sodium-coupled bicarbonate transporter NCBE in rodent brain. <i>Neuroscience</i> , 2008 , 151, 374-85	3.9	38	
108	Expression and localization of Na-driven Cl-HCO(3)(-) exchanger (SLC4A8) in rodent CNS. <i>Neuroscience</i> , 2008 , 153, 162-74	3.9	39	
107	Localization of electrogenic Na/bicarbonate cotransporter NBCe1 variants in rat brain. <i>Neuroscience</i> , 2008 , 155, 818-32	3.9	40	
106	Characterization of human SLC4A10 as an electroneutral Na/HCO3 cotransporter (NBCn2) with Clself-exchange activity. <i>Journal of Biological Chemistry</i> , 2008 , 283, 12777-88	5.4	73	
105	Role of endogenously secreted angiotensin II in the CO2-induced stimulation of HCO3 reabsorption by renal proximal tubules. <i>American Journal of Physiology - Renal Physiology</i> , 2008 , 294, F245-52	4.3	14	
104	Cloning and characterization of novel human SLC4A8 gene products encoding Na+-driven Cl-/HCO3(-) exchanger variants NDCBE-A, -C, and -D. <i>Physiological Genomics</i> , 2008 , 34, 265-76	3.6	31	
103	ATP dependence of Na+-driven Cl-HCO3 exchange in squid axons. <i>Journal of Membrane Biology</i> , 2008 , 222, 107-13	2.3	2	
102	Control of Intracellular pH 2008 , 1429-1480		7	
101	CO2/HCO3 Modulates Receptor Protein Tyrosine Phosphatase Gamma (RPTP) Activity. <i>FASEB Journal</i> , 2008 , 22, 748.7	0.9	1	
100	Effect of basolateral CO2 on the luminal ANG II sensitivity of HCO3 reabsorption by rabbit S2 proximal tubules. <i>FASEB Journal</i> , 2008 , 22, 760.2	0.9		
99	Structural requirements for the electrogenicity of the electrogenic Na-HCO3 cotransporter NBCe1. <i>FASEB Journal</i> , 2008 , 22,	0.9	1	
98	Splice Cassette II Within The N Terminus Of The Electroneutral Na+-Coupled Bicarbonate Transporter NBCn1 Includes A Functional Calcineurin Albinding Site. <i>FASEB Journal</i> , 2008 , 22, 759.12	0.9	4	

97	Sodium-Coupled Bicarbonate Transporters 2008 , 1481-1497		6
96	Cloning and identification of a novel human NBCn1 splice variant. <i>FASEB Journal</i> , 2008 , 22, 92-92	0.9	1
95	The electrogenicity of the rat sodium-bicarbonate cotransporter NBCe1 requires interactions among transmembrane segments of the transporter. <i>Journal of Physiology</i> , 2007 , 578, 131-42	3.9	20
94	A conductive pathway generated from fragments of the human red cell anion exchanger AE1. <i>Journal of Physiology</i> , 2007 , 581, 33-50	3.9	19
93	Evidence against a direct interaction between intracellular carbonic anhydrase II and pure C-terminal domains of SLC4 bicarbonate transporters. <i>Journal of Biological Chemistry</i> , 2007 , 282, 1409-2	2∮.4	62
92	Cloning and characterization of an electrogenic Na/HCO3- cotransporter from the squid giant fiber lobe. <i>American Journal of Physiology - Cell Physiology</i> , 2007 , 292, C2032-45	5.4	22
91	Effect of chronic elevated carbon dioxide on the expression of acid-base transporters in the neonatal and adult mouse. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2007 , 293, R1294-302	3.2	23
90	Chronic continuous hypoxia decreases the expression of SLC4A7 (NBCn1) and SLC4A10 (NCBE) in mouse brain. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2007 , 293, R2412-20	3.2	22
89	Role of the AT1A receptor in the CO2-induced stimulation of HCO3- reabsorption by renal proximal tubules. <i>American Journal of Physiology - Renal Physiology</i> , 2007 , 293, F110-20	4.3	15
88	Reversible and irreversible interactions of DIDS with the human electrogenic Na/HCO3 cotransporter NBCe1-A: role of lysines in the KKMIK motif of TM5. <i>American Journal of Physiology - Cell Physiology</i> , 2007 , 292, C1787-98	5.4	50
87	Colony-stimulating factor-1 increases osteoclast intracellular pH and promotes survival via the electroneutral Na/HCO3 cotransporter NBCn1. <i>Endocrinology</i> , 2007 , 148, 831-40	4.8	38
86	Exploring gas permeability of cellular membranes and membrane channels with molecular dynamics. <i>Journal of Structural Biology</i> , 2007 , 157, 534-44	3.4	162
85	The expression of acid-base transporters in the neonatal and adult mouse exposed to chronic hypercapnia. <i>FASEB Journal</i> , 2007 , 21, A1283	0.9	1
84	IRBIT functionally enhances the electroneutral Na+-coupled bicarbonate transporter NCBE by sequestering an N-terminal autoinhibitory domain. <i>FASEB Journal</i> , 2007 , 21, A1285	0.9	1
83	IRBIT binds to and functionally enhances the electroneutral Na+-coupled bicarbonate transporters NBCn1, NDCBE and NCBE. <i>FASEB Journal</i> , 2007 , 21, A1285	0.9	1
82	Cloning and functional characterization of new splice variants of human Na+-driven Cl/HCO3 (NDCBE). <i>FASEB Journal</i> , 2007 , 21, A1282	0.9	2
81	The human NBCe1-A mutant R881C, associated with proximal renal tubular acidosis, retains function but is mistargeted in polarized renal epithelia. <i>American Journal of Physiology - Cell Physiology</i> , 2006 , 291, C788-801	5.4	73
80	Role of a tyrosine kinase in the CO2-induced stimulation of HCO3- reabsorption by rabbit S2 proximal tubules. <i>American Journal of Physiology - Renal Physiology</i> , 2006 , 291, F358-67	4.3	24

(2003-2006)

79	Effects of angiotensin II on the CO2 dependence of HCO3- reabsorption by the rabbit S2 renal proximal tubule. <i>American Journal of Physiology - Renal Physiology</i> , 2006 , 290, F666-73	4.3	13
78	Effect of human carbonic anhydrase II on the activity of the human electrogenic Na/HCO3 cotransporter NBCe1-A in Xenopus oocytes. <i>Journal of Biological Chemistry</i> , 2006 , 281, 19241-50	5.4	70
77	Evidence that aquaporin 1 is a major pathway for CO2 transport across the human erythrocyte membrane. <i>FASEB Journal</i> , 2006 , 20, 1974-81	0.9	176
76	Acid-base transport by the renal proximal tubule. <i>Journal of the American Society of Nephrology: JASN</i> , 2006 , 17, 2368-82	12.7	129
75	Expression and purification of the cytoplasmic N-terminal domain of the Na/HCO3 cotransporter NBCe1-A: structural insights from a generalized approach. <i>Protein Expression and Purification</i> , 2006 , 49, 228-34	2	20
74	Preliminary X-ray diffraction analysis of the cytoplasmic N-terminal domain of the Na/HCO3 cotransporter NBCe1-A. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2006 , 62, 534-7		17
73	Evidence that AQP1 is a functional CO2 channel in proximal tubules. FASEB Journal, 2006, 20, A1225	0.9	5
72	Characterization of a polyclonal antibody directed against the amino terminus of the human sodium-coupled bicarbonate transporter NCBE. <i>FASEB Journal</i> , 2006 , 20, A842	0.9	
71	Cloning of a unique electrogenic bicarbonate transporter from the squid giant fiber lobe. <i>FASEB Journal</i> , 2006 , 20, A842	0.9	
70	Carbonic anhydrase II fused to the human electrogenic Na/HCO3 cotransporter (hNBCe1-A) does not enhance the activity of the transporter in Xenopus oocytes. <i>FASEB Journal</i> , 2006 , 20, A842	0.9	
69	Physiologyon Our First Anniversary. <i>Physiology</i> , 2005 , 20, 212-212	9.8	1
68	Na+-dependent HCO3- uptake into the rat choroid plexus epithelium is partially DIDS sensitive. <i>American Journal of Physiology - Cell Physiology</i> , 2005 , 289, C1448-56	5.4	67
67	Evidence from renal proximal tubules that HCO3- and solute reabsorption are acutely regulated not by pH but by basolateral HCO3- and CO2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3875-80	11.5	45
66	Regulation of intracellular pH. <i>American Journal of Physiology - Advances in Physiology Education</i> , 2004 , 28, 160-79	1.9	248
65	Effect of extracellular acid-base disturbances on the intracellular pH of neurones cultured from rat medullary raphe or hippocampus. <i>Journal of Physiology</i> , 2004 , 559, 85-101	3.9	38
64	The SLC4 family of HCO 3 - transporters. <i>Pflugers Archiv European Journal of Physiology</i> , 2004 , 447, 495-	-5 ₄ 0.6	362
63	The New Physiology. <i>Physiology</i> , 2004 , 19, 160-160	9.8	3
62	Cloning of a Na+-driven Cl/HCO3 exchanger from squid giant fiber lobe. <i>American Journal of Physiology - Cell Physiology</i> , 2003 , 285, C771-80	5.4	41

61	Role of glycosylation in the renal electrogenic Na+-HCO3- cotransporter (NBCe1). <i>American Journal of Physiology - Renal Physiology</i> , 2003 , 284, F1199-206	4.3	38
60	Effect of isolated removal of either basolateral HCO-3 or basolateral CO2 on HCO-3 reabsorption by rabbit S2 proximal tubule. <i>American Journal of Physiology - Renal Physiology</i> , 2003 , 285, F359-69	4.3	24
59	An increase in intracellular calcium concentration that is induced by basolateral CO2 in rabbit renal proximal tubule. <i>American Journal of Physiology - Renal Physiology</i> , 2003 , 285, F674-87	4.3	6
58	Functional characterization of human NBC4 as an electrogenic Na+-HCO cotransporter (NBCe2). <i>American Journal of Physiology - Cell Physiology</i> , 2002 , 282, C1278-89	5.4	98
57	Transport of volatile solutes through AQP1. <i>Journal of Physiology</i> , 2002 , 542, 17-29	3.9	94
56	Cloning and functional characterization of a novel aquaporin from Xenopus laevis oocytes. <i>Journal of Biological Chemistry</i> , 2002 , 277, 40610-6	5.4	43
55	Specificity of anion exchange mediated by mouse Slc26a6. <i>Journal of Biological Chemistry</i> , 2002 , 277, 33963-7	5.4	127
54	Cloning, characterization, and chromosomal mapping of a human electroneutral Na(+)-driven Cl-HCO3 exchanger. <i>Journal of Biological Chemistry</i> , 2001 , 276, 8358-63	5.4	134
53	Cloning and functional expression of an MIP (AQP0) homolog from killifish (Fundulus heteroclitus) lens. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001 , 281, R1	99 ³ 4 ² 20	03 ¹²
52	An electroneutral sodium/bicarbonate cotransporter NBCn1 and associated sodium channel. <i>Nature</i> , 2000 , 405, 571-5	50.4	208
51	Na/UCO2 ashara a shara in ash hasin ann ann air alia ann ann and sharaid alanna (ann a) af		
	Na/HCO3 cotransporters in rat brain: expression in glia, neurons, and choroid plexus. <i>Journal of Neuroscience</i> , 2000 , 20, 6839-48	6.6	103
50		6.6 5·4	103
	Neuroscience, 2000, 20, 6839-48 An electrogenic Na(+)-HCO(-)(3) cotransporter (NBC) with a novel COOH-terminus, cloned from rat		
50	Neuroscience, 2000, 20, 6839-48 An electrogenic Na(+)-HCO(-)(3) cotransporter (NBC) with a novel COOH-terminus, cloned from rat brain. American Journal of Physiology - Cell Physiology, 2000, 278, C1200-11 Immunolocalization of electroneutral Na-HCO(3)(-) cotransporter in rat kidney. American Journal of	5.4	133
50	Neuroscience, 2000, 20, 6839-48 An electrogenic Na(+)-HCO(-)(3) cotransporter (NBC) with a novel COOH-terminus, cloned from rat brain. American Journal of Physiology - Cell Physiology, 2000, 278, C1200-11 Immunolocalization of electroneutral Na-HCO(3)(-) cotransporter in rat kidney. American Journal of Physiology - Renal Physiology, 2000, 279, F901-9 Extracellular HCO(3)(-) dependence of electrogenic Na/HCO(3) cotransporters cloned from	5·4 4·3	133 59
50 49 48	Neuroscience, 2000, 20, 6839-48 An electrogenic Na(+)-HCO(-)(3) cotransporter (NBC) with a novel COOH-terminus, cloned from rat brain. American Journal of Physiology - Cell Physiology, 2000, 278, C1200-11 Immunolocalization of electroneutral Na-HCO(3)(-) cotransporter in rat kidney. American Journal of Physiology - Renal Physiology, 2000, 279, F901-9 Extracellular HCO(3)(-) dependence of electrogenic Na/HCO(3) cotransporters cloned from salamander and rat kidney. Journal of General Physiology, 2000, 115, 533-46 Immunoelectron microscopic localization of the electrogenic Na/HCO(3) cotransporter in rat and	5·4 4·3 3·4	133 59 31
50 49 48 47	An electrogenic Na(+)-HCO(-)(3) cotransporter (NBC) with a novel COOH-terminus, cloned from rat brain. American Journal of Physiology - Cell Physiology, 2000, 278, C1200-11 Immunolocalization of electroneutral Na-HCO(3)(-) cotransporter in rat kidney. American Journal of Physiology - Renal Physiology, 2000, 279, F901-9 Extracellular HCO(3)(-) dependence of electrogenic Na/HCO(3) cotransporters cloned from salamander and rat kidney. Journal of General Physiology, 2000, 115, 533-46 Immunoelectron microscopic localization of the electrogenic Na/HCO(3) cotransporter in rat and ambystoma kidney. Journal of the American Society of Nephrology: JASN, 2000, 11, 2179-2189	5·4 4·3 3·4	133 59 31 78

43	Shrinkage-induced activation of Na+/H+ exchange in rat renal mesangial cells. <i>American Journal of Physiology - Cell Physiology</i> , 1999 , 276, C674-83	5.4	21
42	Expression and distribution of the Na(+)-HCO(-)(3) cotransporter in human pancreas. <i>American Journal of Physiology - Renal Physiology</i> , 1999 , 277, G487-94	5.1	55
41	Immunolocalization of anion exchanger AE2 and Na(+)-HCO(-)(3) cotransporter in rat parotid and submandibular glands. <i>American Journal of Physiology - Renal Physiology</i> , 1999 , 277, G1288-96	5.1	36
40	Electrogenic Na+/HCO3- cotransporters: cloning and physiology. <i>Annual Review of Physiology</i> , 1999 , 61, 699-723	23.1	173
39	Localization of sodium bicarbonate cotransporter (NBC) protein and messenger ribonucleic acid in rat epididymis. <i>Biology of Reproduction</i> , 1999 , 60, 573-9	3.9	66
38	Effect of PCMBS on CO2 permeability of Xenopus oocytes expressing aquaporin 1 or its C189S mutant. <i>American Journal of Physiology - Cell Physiology</i> , 1998 , 275, C1481-6	5.4	143
37	Cloning and functional expression of rNBC, an electrogenic Na(+)-HCO3- cotransporter from rat kidney. <i>American Journal of Physiology - Renal Physiology</i> , 1998 , 274, F425-32	4.3	111
36	Effect of expressing the water channel aquaporin-1 on the CO2 permeability of Xenopus oocytes. <i>American Journal of Physiology - Cell Physiology</i> , 1998 , 274, C543-8	5.4	293
35	Symmetry of H+ binding to the intra- and extracellular side of the H+-coupled oligopeptide cotransporter PepT1. <i>Journal of Biological Chemistry</i> , 1997 , 272, 7777-85	5.4	56
34	Intracellular pH regulation in cultured astrocytes from rat hippocampus. II. Electrogenic Na/HCO3 cotransport. <i>Journal of General Physiology</i> , 1997 , 110, 467-83	3.4	93
33	Intracellular Cl- dependence of Na-H exchange in barnacle muscle fibers under normotonic and hypertonic conditions. <i>Journal of General Physiology</i> , 1997 , 110, 629-39	3.4	14
32	Intracellular pH regulation in cultured astrocytes from rat hippocampus. I. Role Of HCO3 <i>Journal of General Physiology</i> , 1997 , 110, 453-65	3.4	80
31	Sodium kinetics of Na,K-ATPase alpha isoforms in intact transfected HeLa cells. <i>Journal of General Physiology</i> , 1997 , 110, 201-13	3.4	104
30	Expression cloning and characterization of a renal electrogenic Na+/HCO3- cotransporter. <i>Nature</i> , 1997 , 387, 409-13	50.4	371
29	Cloning and characterization of a mammalian proton-coupled metal-ion transporter. <i>Nature</i> , 1997 , 388, 482-8	50.4	2578
28	Out-of-equilibrium CO2/HCO3- solutions and their use in characterizing a new K/HCO3 cotransporter. <i>Nature</i> , 1995 , 374, 636-9	50.4	60
27	Use of BCECF and propidium iodide to assess membrane integrity of acutely isolated CA1 neurons from rat hippocampus. <i>Journal of Neuroscience Methods</i> , 1995 , 58, 61-75	3	55
26	Electrogenic properties of the epithelial and neuronal high affinity glutamate transporter. <i>Journal of Biological Chemistry</i> , 1995 , 270, 16561-8	5.4	152

25	[12] Manipulation and regulation of cytosolic pH. Methods in Neurosciences, 1995, 252-273		7
24	Effects of CGRP, forskolin, PMA, and ionomycin on pHi dependence of Na-H exchange in UMR-106 cells. <i>American Journal of Physiology - Cell Physiology</i> , 1994 , 266, C1088-92	5.4	71
23	Unusual permeability properties of gastric gland cells. <i>Nature</i> , 1994 , 368, 332-5	50.4	143
22	Expression cloning of a mammalian proton-coupled oligopeptide transporter. <i>Nature</i> , 1994 , 368, 563-6	50.4	741
21	Intracellular pH regulation in single cultured astrocytes from rat forebrain. Glia, 1993, 8, 241-8	9	124
20	Lysosome recruitment and fusion are early events required for trypanosome invasion of mammalian cells. <i>Cell</i> , 1992 , 71, 1117-30	56.2	333
19	Chloride Transport in the Squid Giant Axon 1990 , 85-107		2
18	The electrogenic Na/HCO3 cotransporter. <i>Kidney International</i> , 1989 , 36, 392-402	9.9	96
17	Arginine vasopressin enhances pHi regulation in the presence of HCO3- by stimulating three acid-base transport systems. <i>Nature</i> , 1989 , 337, 648-51	50.4	264
16	Regulation of intracellular pH in renal mesangial cells. <i>Annals of the New York Academy of Sciences</i> , 1989 , 574, 321-32	6.5	12
15	Role of monocarboxylate transport in the regulation of intracellular pH of renal proximal tubule cells. <i>Novartis Foundation Symposium</i> , 1988 , 139, 91-105		2
14	Intracellular pH Regulation 1987 , 39-51		5
13	Chapter 2 Approaches for Studying Intracellular pH Regulation in Mammalian Renal Cells. <i>Current Topics in Membranes and Transport</i> , 1986 , 15-33		
12	Intracellular pH Regulation 1986 , 423-435		5
11	Expression of a mammalian Na-H exchanger in muscle fibres of the giant barnacle. <i>Nature</i> , 1985 , 315, 756-8	50.4	8
10	Regulation of Axonal pH. Current Topics in Membranes and Transport, 1984 , 249-269		
9	Transport of H+ and of ionic weak acids and bases. <i>Journal of Membrane Biology</i> , 1983 , 72, 1-16	2.3	258
8	Chapter 1 Intracellular pH Regulation. Current Topics in Membranes and Transport, 1980, 13, 3-22		9

LIST OF PUBLICATIONS

7	The buffer value of weak acids and bases: origin of the concept, and first mathematical derivation and application to physico-chemical systems. The work of M. Koppel and K. Spiro (1914). <i>Respiration Physiology</i> , 1980 , 40, 1-32		38
6	NH4Cl and other weak bases in the activation of sea urchin eggs. <i>Nature</i> , 1978 , 274, 190	50.4	12
5	Influence of cyclic AMP on intracellular pH regulation and chloride fluxes in barnacle muscle fibers. <i>Nature</i> , 1978 , 276, 511-3	50.4	82
4	Active control of intracellular pH. <i>Respiration Physiology</i> , 1978 , 33, 59-62		8
3	Active proton transport stimulated by CO2/HCO3-, blocked by cyanide. <i>Nature</i> , 1976 , 259, 240-1	50.4	124
2	Role of choloride transport in regulation of intracellular pH. <i>Nature</i> , 1976 , 264, 73-4	50.4	205
1	Role of channels in the oxygen permeability of red blood cells		1