Walter F Boron

List of Publications by Citations

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

#	Paper	IF	Citations
204	Cloning and characterization of a mammalian proton-coupled metal-ion transporter. *Nature*, **1997**, 388, 482-8	50.4	2578
203	Expression cloning of a mammalian proton-coupled oligopeptide transporter. *Nature*, **1994**, 368, 563-6	50.4	741
202	Expression cloning and characterization of a renal electrogenic Na+/HCO3- cotransporter. *Nature*, **1997**, 387, 409-13	50.4	371
201	The SLC4 family of HCO 3 - transporters. *Pflugers Archiv European Journal of Physiology*, **2004**, 447, 495-509	4.0	362
200	Lysosome recruitment and fusion are early events required for trypanosome invasion of mammalian cells. *Cell*, **1992**, 71, 1117-30	56.2	333
199	Effect of expressing the water channel aquaporin-1 on the CO2 permeability of Xenopus oocytes. *American Journal of Physiology - Cell Physiology*, **1998**, 274, C543-8	5.4	293
198	Arginine vasopressin enhances pHi regulation in the presence of HCO3- by stimulating three acid-base transport systems. *Nature*, **1989**, 337, 648-51	50.4	264
197	Transport of H+ and of ionic weak acids and bases. *Journal of Membrane Biology*, **1983**, 72, 1-16	2.3	258
196	Regulation of intracellular pH. *American Journal of Physiology - Advances in Physiology Education*, **2004**, 28, 160-79	1.9	248
195	The SLC4 family of bicarbonate (HCO⁻3) transporters. *Molecular Aspects of Medicine*, **2013**, 34, 159-82	16.7	210
194	An electroneutral sodium/bicarbonate cotransporter NBCn1 and associated sodium channel. *Nature*, **2000**, 405, 571-5	50.4	208
193	Relative CO2/NH3 selectivities of AQP1, AQP4, AQP5, AmtB, and RhAG. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 5406-11	11.5	207
192	Role of choloride transport in regulation of intracellular pH. *Nature*, **1976**, 264, 73-4	50.4	205
191	The divergence, actions, roles, and relatives of sodium-coupled bicarbonate transporters. *Physiological Reviews*, **2013**, 93, 803-959	47.9	188
190	Evidence that aquaporin 1 is a major pathway for CO2 transport across the human erythrocyte membrane. *FASEB Journal*, **2006**, 20, 1974-81	0.9	176
189	Electrogenic Na+/HCO3- cotransporters: cloning and physiology. *Annual Review of Physiology*, **1999**, 61, 699-723	23.1	173
188	Exploring gas permeability of cellular membranes and membrane channels with molecular dynamics. *Journal of Structural Biology*, **2007**, 157, 534-44	3.4	162

187	Electrogenic properties of the epithelial and neuronal high affinity glutamate transporter. *Journal of Biological Chemistry*, **1995**, 270, 16561-8	5.4	152
186	Cloning and characterization of a human electrogenic Na+-HCO-3 cotransporter isoform (hhNBC). *American Journal of Physiology - Cell Physiology*, **1999**, 276, C576-84	5.4	146
185	Effect of PCMBS on CO2 permeability of Xenopus oocytes expressing aquaporin 1 or its C189S mutant. *American Journal of Physiology - Cell Physiology*, **1998**, 275, C1481-6	5.4	143
184	Unusual permeability properties of gastric gland cells. *Nature*, **1994**, 368, 332-5	50.4	143
183	Cloning, characterization, and chromosomal mapping of a human electroneutral Na(+)-driven Cl-HCO3 exchanger. *Journal of Biological Chemistry*, **2001**, 276, 8358-63	5.4	134
182	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	5.4	133
181	Acid-base transport by the renal proximal tubule. *Journal of the American Society of Nephrology: JASN*, **2006**, 17, 2368-82	12.7	129
180	Specificity of anion exchange mediated by mouse Slc26a6. *Journal of Biological Chemistry*, **2002**, 277, 33963-7	5.4	127
179	Intracellular pH regulation in single cultured astrocytes from rat forebrain. *Glia*, **1993**, 8, 241-8	9	124
178	Active proton transport stimulated by CO2/HCO3-, blocked by cyanide. *Nature*, **1976**, 259, 240-1	50.4	124
177	Cloning and functional expression of rNBC, an electrogenic Na(+)-HCO3- cotransporter from rat kidney. *American Journal of Physiology - Renal Physiology*, **1998**, 274, F425-32	4.3	111
176	Modular structure of sodium-coupled bicarbonate transporters. *Journal of Experimental Biology*, **2009**, 212, 1697-706	3	108
175	Intracellular pH regulation by acid-base transporters in mammalian neurons. *Frontiers in Physiology*, **2014**, 5, 43	4.6	104
174	Sodium kinetics of Na,K-ATPase alpha isoforms in intact transfected HeLa cells. *Journal of General Physiology*, **1997**, 110, 201-13	3.4	104
173	Na/HCO3 cotransporters in rat brain: expression in glia, neurons, and choroid plexus. *Journal of Neuroscience*, **2000**, 20, 6839-48	6.6	103
172	Immunolocalization of the electrogenic Na+-HCO-3 cotransporter in mammalian and amphibian kidney. *American Journal of Physiology - Renal Physiology*, **1999**, 276, F27-38	4.3	101
171	Functional characterization of human NBC4 as an electrogenic Na+-HCO cotransporter (NBCe2). *American Journal of Physiology - Cell Physiology*, **2002**, 282, C1278-89	5.4	98
170	The electrogenic Na/HCO3 cotransporter. *Kidney International*, **1989**, 36, 392-402	9.9	96

169	Transport of volatile solutes through AQP1. *Journal of Physiology*, **2002**, 542, 17-29	3.9	94
168	Intracellular pH regulation in cultured astrocytes from rat hippocampus. II. Electrogenic Na/HCO3 cotransport. *Journal of General Physiology*, **1997**, 110, 467-83	3.4	93
167	Reconstitution of CO2 Regulation of SLAC1 Anion Channel and Function of CO2-Permeable PIP2;1 Aquaporin as CARBONIC ANHYDRASE4 Interactor. *Plant Cell*, **2016**, 28, 568-82	11.6	88
166	Influence of cyclic AMP on intracellular pH regulation and chloride fluxes in barnacle muscle fibers. *Nature*, **1978**, 276, 511-3	50.4	82
165	Intracellular pH regulation in cultured astrocytes from rat hippocampus. I. Role Of HCO3-. *Journal of General Physiology*, **1997**, 110, 453-65	3.4	80
164	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	12.7	78
163	Sharpey-Schafer lecture: gas channels. *Experimental Physiology*, **2010**, 95, 1107-30	2.4	74
162	Characterization of human SLC4A10 as an electroneutral Na/HCO3 cotransporter (NBCn2) with Cl- self-exchange activity. *Journal of Biological Chemistry*, **2008**, 283, 12777-88	5.4	73
161	The human NBCe1-A mutant R881C, associated with proximal renal tubular acidosis, retains function but is mistargeted in polarized renal epithelia. *American Journal of Physiology - Cell Physiology*, **2006**, 291, C788-801	5.4	73
160	Relative CO(2)/NH(3) selectivities of mammalian aquaporins 0-9. *American Journal of Physiology - Cell Physiology*, **2013**, 304, C985-94	5.4	71
159	Effects of CGRP, forskolin, PMA, and ionomycin on pHi dependence of Na-H exchange in UMR-106 cells. *American Journal of Physiology - Cell Physiology*, **1994**, 266, C1088-92	5.4	71
158	Effect of human carbonic anhydrase II on the activity of the human electrogenic Na/HCO3 cotransporter NBCe1-A in Xenopus oocytes. *Journal of Biological Chemistry*, **2006**, 281, 19241-50	5.4	70
157	Na+-dependent HCO3- uptake into the rat choroid plexus epithelium is partially DIDS sensitive. *American Journal of Physiology - Cell Physiology*, **2005**, 289, C1448-56	5.4	67
156	Localization of sodium bicarbonate cotransporter (NBC) protein and messenger ribonucleic acid in rat epididymis. *Biology of Reproduction*, **1999**, 60, 573-9	3.9	66
155	Evaluating the role of carbonic anhydrases in the transport of HCO3--related species. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2010**, 1804, 410-21	4	64
154	Evidence against a direct interaction between intracellular carbonic anhydrase II and pure C-terminal domains of SLC4 bicarbonate transporters. *Journal of Biological Chemistry*, **2007**, 282, 1409-21	5.4	62
153	Out-of-equilibrium CO2/HCO3- solutions and their use in characterizing a new K/HCO3 cotransporter. *Nature*, **1995**, 374, 636-9	50.4	60
152	Distinct Cellular Locations of Carbonic Anhydrases Mediate Carbon Dioxide Control of Stomatal Movements. *Plant Physiology*, **2015**, 169, 1168-78	6.6	59

151	Immunolocalization of electroneutral Na-HCO(3)(-) cotransporter in rat kidney. *American Journal of Physiology - Renal Physiology*, **2000**, 279, F901-9	4.3	59
150	Symmetry of H+ binding to the intra- and extracellular side of the H+-coupled oligopeptide cotransporter PepT1. *Journal of Biological Chemistry*, **1997**, 272, 7777-85	5.4	56
149	Expression and distribution of the Na(+)-HCO(-)(3) cotransporter in human pancreas. *American Journal of Physiology - Renal Physiology*, **1999**, 277, G487-94	5.1	55
148	Use of BCECF and propidium iodide to assess membrane integrity of acutely isolated CA1 neurons from rat hippocampus. *Journal of Neuroscience Methods*, **1995**, 58, 61-75	3	55
147	Reversible and irreversible interactions of DIDS with the human electrogenic Na/HCO3 cotransporter NBCe1-A: role of lysines in the KKMIK motif of TM5. *American Journal of Physiology - Cell Physiology*, **2007**, 292, C1787-98	5.4	50
146	Relief of autoinhibition of the electrogenic Na-HCO(3) [corrected] cotransporter NBCe1-B: role of IRBIT vs.amino-terminal truncation. *American Journal of Physiology - Cell Physiology*, **2012**, 302, C518-26	5.4	49
145	Intrinsic CO2 permeability of cell membranes and potential biological relevance of CO2 channels. *ChemPhysChem*, **2011**, 12, 1017-9	3.2	47
144	Evidence from renal proximal tubules that HCO3- and solute reabsorption are acutely regulated not by pH but by basolateral HCO3- and CO2. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 3875-80	11.5	45
143	Cloning and functional characterization of a novel aquaporin from Xenopus laevis oocytes. *Journal of Biological Chemistry*, **2002**, 277, 40610-6	5.4	43
142	Using fluorometry and ion-sensitive microelectrodes to study the functional expression of heterologously-expressed ion channels and transporters in Xenopus oocytes. *Methods*, **2010**, 51, 134-45	4.6	42
141	Cloning and functional expression of an MIP (AQP0) homolog from killifish (Fundulus heteroclitus) lens. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2001**, 281, R1994-2003	3.2	42
140	Cloning of a Na+-driven Cl/HCO3 exchanger from squid giant fiber lobe. *American Journal of Physiology - Cell Physiology*, **2003**, 285, C771-80	5.4	41
139	NBCe1 (SLC4A4) a potential pH regulator in enamel organ cells during enamel development in the mouse. *Cell and Tissue Research*, **2014**, 358, 433-42	4.2	40
138	Localization of electrogenic Na/bicarbonate cotransporter NBCe1 variants in rat brain. *Neuroscience*, **2008**, 155, 818-32	3.9	40
137	Expression and localization of Na-driven Cl-HCO(3)(-) exchanger (SLC4A8) in rodent CNS. *Neuroscience*, **2008**, 153, 162-74	3.9	39
136	Use of a new polyclonal antibody to study the distribution and glycosylation of the sodium-coupled bicarbonate transporter NCBE in rodent brain. *Neuroscience*, **2008**, 151, 374-85	3.9	38
135	Colony-stimulating factor-1 increases osteoclast intracellular pH and promotes survival via the electroneutral Na/HCO3 cotransporter NBCn1. *Endocrinology*, **2007**, 148, 831-40	4.8	38
134	Role of glycosylation in the renal electrogenic Na+-HCO3- cotransporter (NBCe1). *American Journal of Physiology - Renal Physiology*, **2003**, 284, F1199-206	4.3	38

133	Effect of extracellular acid-base disturbances on the intracellular pH of neurones cultured from rat medullary raphe or hippocampus. *Journal of Physiology*, **2004**, 559, 85-101	3.9	38
132	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). *Respiration Physiology*, **1980**, 40, 1-32		38
131	Immunolocalization of anion exchanger AE2 and Na(+)-HCO(-)(3) cotransporter in rat parotid and submandibular glands. *American Journal of Physiology - Renal Physiology*, **1999**, 277, G1288-96	5.1	36
130	Acid-base transport by the renal proximal tubule. *Journal of Nephrology*, **2010**, 23 Suppl 16, S4-18	4.8	33
129	Cloning and characterization of novel human SLC4A8 gene products encoding Na+-driven Cl-/HCO3(-) exchanger variants NDCBE-A, -C, and -D. *Physiological Genomics*, **2008**, 34, 265-76	3.6	31
128	Extracellular HCO(3)(-) dependence of electrogenic Na/HCO(3) cotransporters cloned from salamander and rat kidney. *Journal of General Physiology*, **2000**, 115, 533-46	3.4	31
127	Concentration-dependent effects on intracellular and surface pH of exposing Xenopus oocytes to solutions containing NH3/NH4(+). *Journal of Membrane Biology*, **2009**, 228, 15-31	2.3	30
126	Cloning and characterization of a zebrafish homologue of human AQP1: a bifunctional water and gas channel. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2010**, 299, R1163-74	3.2	29
125	Relative CO⁄NH permeabilities of human RhAG, RhBG and RhCG. *Journal of Membrane Biology*, **2013**, 246, 915-26	2.3	28
124	Mathematical modeling of acid-base physiology. *Progress in Biophysics and Molecular Biology*, **2015**, 117, 43-58	4.7	28
123	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
122	Movement of NH through the human urea transporter B: a new gas channel. *American Journal of Physiology - Renal Physiology*, **2013**, 304, F1447-57	4.3	26
121	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. *Journal of Biological Chemistry*, **2013**, 288, 8146-8155	5.4	25
120	A reaction-diffusion model of CO2 influx into an oocyte. *Journal of Theoretical Biology*, **2012**, 309, 185-203	2.3	24
119	Role of a tyrosine kinase in the CO2-induced stimulation of HCO3- reabsorption by rabbit S2 proximal tubules. *American Journal of Physiology - Renal Physiology*, **2006**, 291, F358-67	4.3	24
118	Effect of isolated removal of either basolateral HCO-3 or basolateral CO2 on HCO-3 reabsorption by rabbit S2 proximal tubule. *American Journal of Physiology - Renal Physiology*, **2003**, 285, F359-69	4.3	24
117	Secretagogue stimulation enhances NBCe1 (electrogenic Na(+)/HCO(3)(-) cotransporter) surface expression in murine colonic crypts. *American Journal of Physiology - Renal Physiology*, **2009**, 297, G1223-31	5.1	23
116	Effect of chronic elevated carbon dioxide on the expression of acid-base transporters in the neonatal and adult mouse. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2007**, 293, R1294-302	3.2	23

115	Role of an extracellular loop in determining the stoichiometry of Na+-HCO cotransporters. *Journal of Physiology*, **2011**, 589, 877-90	3.9	22
114	Cloning and characterization of an electrogenic Na/HCO3- cotransporter from the squid giant fiber lobe. *American Journal of Physiology - Cell Physiology*, **2007**, 292, C2032-45	5.4	22
113	Chronic continuous hypoxia decreases the expression of SLC4A7 (NBCn1) and SLC4A10 (NCBE) in mouse brain. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2007**, 293, R2412-20	3.2	22
112	Comment on "Local impermeant anions establish the neuronal chloride concentration". *Science*, **2014**, 345, 1130	33.3	21
111	Monitoring ion activities in and around cells using ion-selective liquid-membrane microelectrodes. *Sensors*, **2013**, 13, 984-1003	3.8	21
110	Cloning, localization, and functional expression of the electrogenic Na+ bicarbonate cotransporter (NBCe1) from zebrafish. *American Journal of Physiology - Cell Physiology*, **2009**, 297, C865-75	5.4	21
109	Shrinkage-induced activation of Na+/H+ exchange in rat renal mesangial cells. *American Journal of Physiology - Cell Physiology*, **1999**, 276, C674-83	5.4	21
108	Na/HCO Cotransporter NBCn2 Mediates HCO Reclamation in the Apical Membrane of Renal Proximal Tubules. *Journal of the American Society of Nephrology: JASN*, **2017**, 28, 2409-2419	12.7	20
107	Role of Receptor Protein Tyrosine Phosphatase in Sensing Extracellular CO2 and HCO3. *Journal of the American Society of Nephrology: JASN*, **2016**, 27, 2616-21	12.7	20
106	Role of Carbonic Anhydrases and Inhibitors in Acid-Base Physiology: Insights from Mathematical Modeling. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	20
105	Effects of acute hypoxia on intracellular-pH regulation in astrocytes cultured from rat hippocampus. *Brain Research*, **2008**, 1193, 143-52	3.7	20
104	Effects of chronic continuous hypoxia on the expression of SLC4A8 (NDCBE) in neonatal versus adult mouse brain. *Brain Research*, **2008**, 1238, 85-92	3.7	20
103	The electrogenicity of the rat sodium-bicarbonate cotransporter NBCe1 requires interactions among transmembrane segments of the transporter. *Journal of Physiology*, **2007**, 578, 131-42	3.9	20
102	Expression and purification of the cytoplasmic N-terminal domain of the Na/HCO3 cotransporter NBCe1-A: structural insights from a generalized approach. *Protein Expression and Purification*, **2006**, 49, 228-34	2	20
101	Functionalized Phenylbenzamides Inhibit Aquaporin-4 Reducing Cerebral Edema and Improving Outcome in Two Models of CNS Injury. *Neuroscience*, **2019**, 404, 484-498	3.9	20
100	HCO(3)(-)-independent conductance with a mutant Na(+)/HCO(3)(-) cotransporter (SLC4A4) in a case of proximal renal tubular acidosis with hypokalaemic paralysis. *Journal of Physiology*, **2012**, 590, 2009-34	3.9	19
99	A conductive pathway generated from fragments of the human red cell anion exchanger AE1. *Journal of Physiology*, **2007**, 581, 33-50	3.9	19
98	Substrate specificity of the electrogenic sodium/bicarbonate cotransporter NBCe1-A (SLC4A4, variant A) from humans and rabbits. *American Journal of Physiology - Renal Physiology*, **2013**, 304, F883-99	4.3	18

97	Effects of metabolic acidosis on intracellular pH responses in multiple cell types. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2014**, 307, R1413-27	3.2	17
96	Preliminary X-ray diffraction analysis of the cytoplasmic N-terminal domain of the Na/HCO3 cotransporter NBCe1-A. *Acta Crystallographica Section F: Structural Biology Communications*, **2006**, 62, 534-7		17
95	Evidence from simultaneous intracellular- and surface-pH transients that carbonic anhydrase IV enhances CO2 fluxes across Xenopus oocyte plasma membranes. *American Journal of Physiology - Cell Physiology*, **2014**, 307, C814-40	5.4	16
94	Distribution of NBCn2 (SLC4A10) splice variants in mouse brain. *Neuroscience*, **2010**, 169, 951-64	3.9	16
93	Role of the AT1A receptor in the CO2-induced stimulation of HCO3- reabsorption by renal proximal tubules. *American Journal of Physiology - Renal Physiology*, **2007**, 293, F110-20	4.3	15
92	Mutation of a single amino acid converts the human water channel aquaporin 5 into an anion channel. *American Journal of Physiology - Cell Physiology*, **2013**, 305, C663-72	5.4	14
91	Intracellular Cl- dependence of Na-H exchange in barnacle muscle fibers under normotonic and hypertonic conditions. *Journal of General Physiology*, **1997**, 110, 629-39	3.4	14
90	Role of endogenously secreted angiotensin II in the CO2-induced stimulation of HCO3 reabsorption by renal proximal tubules. *American Journal of Physiology - Renal Physiology*, **2008**, 294, F245-52	4.3	14
89	Increased cerebral vascularization and decreased water exchange across the blood-brain barrier in aquaporin-4 knockout mice. *PLoS ONE*, **2019**, 14, e0218415	3.7	13
88	Aquaporin-7: A Dynamic Aquaglyceroporin With Greater Water and Glycerol Permeability Than Its Bacterial Homolog GlpF. *Frontiers in Physiology*, **2020**, 11, 728	4.6	13
87	Evidence from mathematical modeling that carbonic anhydrase II and IV enhance CO2 fluxes across Xenopus oocyte plasma membranes. *American Journal of Physiology - Cell Physiology*, **2014**, 307, C841-58	5.4	13
86	Evidence from simultaneous intracellular- and surface-pH transients that carbonic anhydrase II enhances CO2 fluxes across Xenopus oocyte plasma membranes. *American Journal of Physiology - Cell Physiology*, **2014**, 307, C791-813	5.4	13
85	Effects of angiotensin II on the CO2 dependence of HCO3- reabsorption by the rabbit S2 renal proximal tubule. *American Journal of Physiology - Renal Physiology*, **2006**, 290, F666-73	4.3	13
84	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). *Journal of Physiology*, **2013**, 591, 4983-5004	3.9	12
83	Regulation of intracellular pH in renal mesangial cells. *Annals of the New York Academy of Sciences*, **1989**, 574, 321-32	6.5	12
82	NH4Cl and other weak bases in the activation of sea urchin eggs. *Nature*, **1978**, 274, 190	50.4	12
81	CrossTalk proposal: Physiological CO2 exchange can depend on membrane channels. *Journal of Physiology*, **2015**, 593, 5025-8	3.9	10
80	Linaclotide improves gastrointestinal transit in cystic fibrosis mice by inhibiting sodium/hydrogen exchanger 3. *American Journal of Physiology - Renal Physiology*, **2018**, 315, G868-G878	5.1	9

79	Effect of simultaneously replacing putative TM6 and TM12 of human NBCe1-A with those from NBCn1 on surface abundance in Xenopus oocytes. *Journal of Membrane Biology*, **2012**, 245, 131-40	2.3	9
78	Chapter 1 Intracellular pH Regulation. *Current Topics in Membranes and Transport*, **1980**, 13, 3-22		9
77	Role of Cl -HCO exchanger AE3 in intracellular pH homeostasis in cultured murine hippocampal neurons, and in crosstalk to adjacent astrocytes. *Journal of Physiology*, **2017**, 595, 93-124	3.9	8
76	A Novel Stopped-Flow Assay for Quantitating Carbonic-Anhydrase Activity and Assessing Red-Blood-Cell Hemolysis. *Frontiers in Physiology*, **2017**, 8, 169	4.6	8
75	Expression of a mammalian Na-H exchanger in muscle fibres of the giant barnacle. *Nature*, **1985**, 315, 756-8	50.4	8
74	Active control of intracellular pH. *Respiration Physiology*, **1978**, 33, 59-62		8
73	Carbonic anhydrases enhance activity of endogenous Na-H exchangers and not the electrogenic Na/HCO cotransporter NBCe1-A, expressed in Xenopus oocytes. *Journal of Physiology*, **2020**, 598, 5821-5836	3.9	8
72	Control of Intracellular pH **2013**, 1773-1835		7
71	Effect of acute acid-base disturbances on ErbB1/2 tyrosine phosphorylation in rabbit renal proximal tubules. *American Journal of Physiology - Renal Physiology*, **2013**, 305, F1747-64	4.3	7
70	Expression and distribution of NBCn2 (Slc4a10) splice variants in mouse brain: cloning of novel variant NBCn2-D. *Brain Research*, **2011**, 1390, 33-40	3.7	7
69	Control of Intracellular pH **2008**, 1429-1480		7
68	[12] Manipulation and regulation ofcytosolic pH. *Methods in Neurosciences*, **1995**, 252-273		7
67	An increase in intracellular calcium concentration that is induced by basolateral CO2 in rabbit renal proximal tubule. *American Journal of Physiology - Renal Physiology*, **2003**, 285, F674-87	4.3	6
66	Sodium-Coupled Bicarbonate Transporters **2008**, 1481-1497		6
65	Exploring the autoinhibitory domain of the electrogenic Na /HCO transporter NBCe1-B, from residues 28 to 62. *Journal of Physiology*, **2018**, 596, 3637-3653	3.9	6
64	Expression, Localization, and Effect of High Salt Intake on Electroneutral Na/HCO Cotransporter NBCn2 in Rat Small Intestine: Implication in Intestinal NaCl Absorption. *Frontiers in Physiology*, **2019**, 10, 1334	4.6	5
63	Effect of acute acid-base disturbances on the phosphorylation of phospholipase C-1 and Erk1/2 in the renal proximal tubule. *Physiological Reports*, **2015**, 3, e12280	2.6	5
62	Evidence that AQP1 is a functional CO2 channel in proximal tubules. *FASEB Journal*, **2006**, 20, A1225	0.9	5

61	Carbon dioxide transport across membranes. *Interface Focus*, **2021**, 11, 20200090	3.9	5
60	Intracellular pH Regulation **1986**, 423-435		5
59	Intracellular pH Regulation **1987**, 39-51		5
58	Immunocytochemical identification of electroneutral Na+-coupled HCO transporters in freshly dissociated mouse medullary raph neurons. *Neuroscience*, **2013**, 246, 451-67	3.9	4
57	Splice Cassette II Within The N Terminus Of The Electroneutral Na+-Coupled Bicarbonate Transporter NBCn1 Includes A Functional Calcineurin A Binding Site. *FASEB Journal*, **2008**, 22, 759.12	0.9	4
56	Distinguishing HCO3- from CO3= transport by the electrogenic Na/HCO3 cotransporter NBCe1 (SLC4A4) (1098.7). *FASEB Journal*, **2014**, 28, 1098.7	0.9	4
55	Multiple acid-base and electrolyte disturbances upregulate NBCn1, NBCn2, IRBIT and L-IRBIT in the mTAL. *Journal of Physiology*, **2020**, 598, 3395-3415	3.9	3
54	The New Physiology. *Physiology*, **2004**, 19, 160-160	9.8	3
53	Effect of knocking out receptor protein tyrosine phosphatase [RPTP] in the CO2-induced stimulation of HCO3 reabsorption by mouse renal proximal tubules. *FASEB Journal*, **2010**, 24, 1024.7	0.9	3
52	Rebuttal from Gordon J. Cooper, Rossana Occhipinti and Walter F. Boron. *Journal of Physiology*, **2015**, 593, 5033	3.9	2
51	X-ray diffraction studies on merohedrally twinned -62NtNBCe1-A crystals of the sodium/bicarbonate cotransporter. *Acta Crystallographica Section F: Structural Biology Communications*, **2013**, 69, 796-9		2
50	The use of extracellular, ion-selective microelectrodes to study the function of heterologously expressed transporters in Xenopus oocytes. *American Journal of Physiology - Cell Physiology*, **2009**, 296, C1243; author reply C1244	5.4	2
49	ATP dependence of Na+-driven Cl-HCO3 exchange in squid axons. *Journal of Membrane Biology*, **2008**, 222, 107-13	2.3	2
48	Cloning and functional characterization of new splice variants of human Na+-driven Cl/HCO3 (NDCBE). *FASEB Journal*, **2007**, 21, A1282	0.9	2
47	Role of monocarboxylate transport in the regulation of intracellular pH of renal proximal tubule cells. *Novartis Foundation Symposium*, **1988**, 139, 91-105		2
46	Is the electrogenic Na/HCO3 cotransporter a CO2 channel?. *FASEB Journal*, **2016**, 30, 971.2	0.9	2
45	Relative CO2/NH3 permeabilities of human RhAG, RhBG, and RhCG. *FASEB Journal*, **2011**, 25, 1040.4	0.9	2
44	The Permeability of MIPS to Gases **2000**, 275-282		2

43	Chloride Transport in the Squid Giant Axon **1990**, 85-107		2
42	Physiology...on Our First Anniversary. *Physiology*, **2005**, 20, 212-212	9.8	1
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