

Kai Kaila

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7500836/publications.pdf>

Version: 2024-02-01

198
papers

21,078
citations

9254

74
h-index

10441

139
g-index

206
all docs

206
docs citations

206
times ranked

12591
citing authors

#	ARTICLE	IF	CITATIONS
1	The K ⁺ /Cl ⁻ co-transporter KCC2 renders GABA hyperpolarizing during neuronal maturation. <i>Nature</i> , 1999, 397, 251-255.	13.7	1,892
2	Cation ⁺ chloride co-transporters in neuronal communication, development and trauma. <i>Trends in Neurosciences</i> , 2003, 26, 199-206.	4.2	739
3	Cation-Chloride Cotransporters and Neuronal Function. <i>Neuron</i> , 2009, 61, 820-838.	3.8	708
4	Cation-chloride cotransporters in neuronal development, plasticity and disease. <i>Nature Reviews Neuroscience</i> , 2014, 15, 637-654.	4.9	589
5	Ionic basis of GABAA receptor channel function in the nervous system. <i>Progress in Neurobiology</i> , 1994, 42, 489-537.	2.8	579
6	Phase Synchrony among Neuronal Oscillations in the Human Cortex. <i>Journal of Neuroscience</i> , 2005, 25, 3962-3972.	1.7	579
7	Perturbed Chloride Homeostasis and GABAergic Signaling in Human Temporal Lobe Epilepsy. <i>Journal of Neuroscience</i> , 2007, 27, 9866-9873.	1.7	526
8	Modulation of pH by neuronal activity. <i>Trends in Neurosciences</i> , 1992, 15, 396-402.	4.2	488
9	BDNF-induced TrkB activation down-regulates the K ⁺ -Cl ⁻ cotransporter KCC2 and impairs neuronal Cl ⁻ extrusion. <i>Journal of Cell Biology</i> , 2002, 159, 747-752.	2.3	467
10	Mechanism of Activity-Dependent Downregulation of the Neuron-Specific K-Cl Cotransporter KCC2. <i>Journal of Neuroscience</i> , 2004, 24, 4683-4691.	1.7	446
11	Infraslow oscillations modulate excitability and interictal epileptic activity in the human cortex during sleep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 5053-5057.	3.3	425
12	Inhibition and Brain Work. <i>Neuron</i> , 2007, 56, 771-783.	3.8	365
13	Two developmental switches in GABAergic signalling: the K ⁺ -Cl ⁻ cotransporter KCC2 and carbonic anhydrase CAVII. <i>Journal of Physiology</i> , 2005, 562, 27-36.	1.3	357
14	Postsynaptic fall in intracellular pH induced by GABA-activated bicarbonate conductance. <i>Nature</i> , 1987, 330, 163-165.	13.7	340
15	Interstimulus interval dependence of the auditory vertex response and its magnetic counterpart: Implications for their neural generation. <i>Electroencephalography and Clinical Neurophysiology</i> , 1982, 54, 561-569.	0.3	330
16	The cellular, molecular and ionic basis of GABAA receptor signalling. <i>Progress in Brain Research</i> , 2007, 160, 59-87.	0.9	318
17	Long-Lasting GABA-Mediated Depolarization Evoked by High-Frequency Stimulation in Pyramidal Neurons of Rat Hippocampal Slice Is Attributable to a Network-Driven, Bicarbonate-Dependent K ⁺ Transient. <i>Journal of Neuroscience</i> , 1997, 17, 7662-7672.	1.7	299
18	KCC2 Interacts with the Dendritic Cytoskeleton to Promote Spine Development. <i>Neuron</i> , 2007, 56, 1019-1033.	3.8	280

#	ARTICLE	IF	CITATIONS
19	Evaluation of commercially available electrodes and gels for recording of slow EEG potentials. <i>Clinical Neurophysiology</i> , 2005, 116, 799-806.	0.7	275
20	Development of neonatal EEG activity: From phenomenology to physiology. <i>Seminars in Fetal and Neonatal Medicine</i> , 2006, 11, 471-478.	1.1	265
21	GABAergic Depolarization of the Axon Initial Segment in Cortical Principal Neurons Is Caused by the Na ⁺ -Cl ⁻ Cotransporter NKCC1. <i>Journal of Neuroscience</i> , 2008, 28, 4635-4639.	1.7	263
22	Experimental febrile seizures are precipitated by a hyperthermia-induced respiratory alkalosis. <i>Nature Medicine</i> , 2006, 12, 817-823.	15.2	257
23	Cation-chloride cotransporters NKCC1 and KCC2 as potential targets for novel antiepileptic and antiepileptogenic treatments. <i>Neuropharmacology</i> , 2013, 69, 62-74.	2.0	232
24	Contributions of the Na ⁺ /K ⁺ -ATPase, NKCC1, and Kir4.1 to hippocampal K ⁺ clearance and volume responses. <i>Glia</i> , 2014, 62, 608-622.	2.5	207
25	The KCl cotransporter, KCC2, is highly expressed in the vicinity of excitatory synapses in the rat hippocampus. <i>European Journal of Neuroscience</i> , 2001, 13, 2205-2217.	1.2	205
26	Polyamines Inhibit Carbonic Anhydrases by Anchoring to the Zinc-Coordinated Water Molecule. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 5511-5522.	2.9	205
27	Slow endogenous activity transients and developmental expression of K ⁺ -Cl ⁻ cotransporter 2 in the immature human cortex. <i>European Journal of Neuroscience</i> , 2005, 22, 2799-2804.	1.2	202
28	Modulation of neuronal activity by phosphorylation of the K ⁺ -Cl ⁻ cotransporter KCC2. <i>Trends in Neurosciences</i> , 2013, 36, 726-737.	4.2	196
29	Patterns of cation-chloride cotransporter expression during embryonic rodent CNS development. <i>European Journal of Neuroscience</i> , 2002, 16, 2358-2370.	1.2	189
30	GABA actions and ionic plasticity in epilepsy. <i>Current Opinion in Neurobiology</i> , 2014, 26, 34-41.	2.0	188
31	The role of bicarbonate in GABA _A receptor-mediated IPSPs of rat neocortical neurones. <i>Journal of Physiology</i> , 1993, 464, 273-289.	1.3	187
32	Subplate Neurons Promote Spindle Bursts and Thalamocortical Patterning in the Neonatal Rat Somatosensory Cortex. <i>Journal of Neuroscience</i> , 2012, 32, 692-702.	1.7	177
33	The K ⁺ -Cl ⁻ cotransporter KCC2 promotes GABAergic excitation in the mature rat hippocampus. <i>Journal of Physiology</i> , 2010, 588, 1527-1540.	1.3	170
34	Depolarizing GABA Acts on Intrinsically Bursting Pyramidal Neurons to Drive Giant Depolarizing Potentials in the Immature Hippocampus. <i>Journal of Neuroscience</i> , 2005, 25, 5280-5289.	1.7	165
35	A variant of KCC2 from patients with febrile seizures impairs neuronal Cl ⁻ extrusion and dendritic spine formation. <i>EMBO Reports</i> , 2014, 15, 723-729.	2.0	163
36	Activity-Dependent Cleavage of the K-Cl Cotransporter KCC2 Mediated by Calcium-Activated Protease Calpain. <i>Journal of Neuroscience</i> , 2012, 32, 11356-11364.	1.7	157

#	ARTICLE	IF	CITATIONS
37	Full-band EEG (FbEEG): an emerging standard in electroencephalography. <i>Clinical Neurophysiology</i> , 2005, 116, 1-8.	0.7	146
38	Carbonic anhydrase inhibitors. Inhibition of the human cytosolic isozyme VII with aromatic and heterocyclic sulfonamides. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2005, 15, 971-976.	1.0	145
39	Distinct properties of functional KCC2 expression in immature mouse hippocampal neurons in culture and in acute slices. <i>European Journal of Neuroscience</i> , 2005, 21, 899-904.	1.2	143
40	Developmental up-regulation of KCC2 in the absence of GABAergic and glutamatergic transmission. <i>European Journal of Neuroscience</i> , 2003, 18, 3199-3206.	1.2	138
41	Carbonic Anhydrase Isoform VII Acts as a Molecular Switch in the Development of Synchronous Gamma-Frequency Firing of Hippocampal CA1 Pyramidal Cells. <i>Journal of Neuroscience</i> , 2004, 24, 2699-2707.	1.7	136
42	A Novel N-terminal Isoform of the Neuron-specific K-Cl Cotransporter KCC2. <i>Journal of Biological Chemistry</i> , 2007, 282, 30570-30576.	1.6	129
43	The cation-chloride cotransporter NKCC1 promotes sharp waves in the neonatal rat hippocampus. <i>Journal of Physiology</i> , 2006, 573, 765-773.	1.3	128
44	Millivolt-Scale DC Shifts in the Human Scalp EEG: Evidence for a Nonneuronal Generator. <i>Journal of Neurophysiology</i> , 2003, 89, 2208-2214.	0.9	124
45	Stimulus-induced change in long-range temporal correlations and scaling behaviour of sensorimotor oscillations. <i>European Journal of Neuroscience</i> , 2004, 19, 203-218.	1.2	121
46	Distribution of GABA receptor γ -subunit transcripts in the rat brain. <i>European Journal of Neuroscience</i> , 1998, 10, 350-357.	1.2	120
47	Pharmacotherapeutic targeting of cation-chloride cotransporters in neonatal seizures. <i>Epilepsia</i> , 2014, 55, 806-818.	2.6	120
48	Cell Type-Specific Differences in Chloride-Regulatory Mechanisms and GABA _A Receptor-Mediated Inhibition in Rat Substantia Nigra. <i>Journal of Neuroscience</i> , 2003, 23, 8237-8246.	1.7	114
49	Development of hemodynamic responses and functional connectivity in rat somatosensory cortex. <i>Nature Neuroscience</i> , 2008, 11, 72-79.	7.1	110
50	Acetazolamide and midazolam act synergistically to inhibit neuropathic pain. <i>Pain</i> , 2010, 148, 302-308.	2.0	110
51	Simultaneous two-photon imaging of intracellular chloride concentration and pH in mouse pyramidal neurons in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E8770-E8779.	3.3	110
52	Synaptic GABA _A Activation Inhibits AMPA-Kainate Receptor-Mediated Bursting in the Newborn (<i>P2</i>) Rat Hippocampus. <i>Journal of Neurophysiology</i> , 2000, 83, 359-366.	0.9	107
53	Influence of GABA-gated bicarbonate conductance on potential, current and intracellular chloride in crayfish muscle fibres. <i>Journal of Physiology</i> , 1989, 416, 161-181.	1.3	104
54	Posttraumatic GABA _A -Mediated [Ca ²⁺] _i Increase Is Essential for the Induction of Brain-Derived Neurotrophic Factor-Dependent Survival of Mature Central Neurons. <i>Journal of Neuroscience</i> , 2008, 28, 6996-7005.	1.7	104

#	ARTICLE	IF	CITATIONS
55	Developmental Expression Patterns of KCC2 and Functionally Associated Molecules in the Human Brain. <i>Cerebral Cortex</i> , 2016, 26, 4574-4589.	1.6	103
56	Effects of CO ₂ on excitatory transmission apparently caused by changes in intracellular pH in the rat hippocampal slice. <i>Brain Research</i> , 1996, 706, 210-216.	1.1	100
57	DC-EEG discloses prominent, very slow activity patterns during sleep in preterm infants. <i>Clinical Neurophysiology</i> , 2002, 113, 1822-1825.	0.7	100
58	pH transients due to monosynaptic activation of GABA _A receptors in rat hippocampal slices. <i>NeuroReport</i> , 1992, 3, 105-108.	0.6	99
59	An Ion Transport-Independent Role for the Cation-Chloride Cotransporter KCC2 in Dendritic Spinogenesis In Vivo. <i>Cerebral Cortex</i> , 2013, 23, 378-388.	1.6	98
60	A novel prodrug-based strategy to increase effects of bumetanide in epilepsy. <i>Annals of Neurology</i> , 2014, 75, 550-562.	2.8	96
61	Posttetanic Excitation Mediated by GABA _A Receptors in Rat CA1 Pyramidal Neurons. <i>Journal of Neurophysiology</i> , 1997, 77, 2213-2218.	0.9	93
62	Five percent CO ₂ is a potent, fast-acting inhalation anticonvulsant. <i>Epilepsia</i> , 2011, 52, 104-114.	2.6	92
63	Aquaporin-4 regulates extracellular space volume dynamics during high-frequency synaptic stimulation: A gene deletion study in mouse hippocampus. <i>Glia</i> , 2012, 60, 867-874.	2.5	91
64	Distinct Gamma-Band Evoked Responses to Speech and Non-Speech Sounds in Humans. <i>Journal of Neuroscience</i> , 2002, 22, RC211-RC211.	1.7	89
65	A Single Seizure Episode Leads to Rapid Functional Activation of KCC2 in the Neonatal Rat Hippocampus. <i>Journal of Neuroscience</i> , 2010, 30, 12028-12035.	1.7	88
66	Carbonic Anhydrases and Brain pH in the Control of Neuronal Excitability. <i>Sub-Cellular Biochemistry</i> , 2014, 75, 271-290.	1.0	88
67	Influence of sodium-hydrogen exchange on intracellular pH, sodium and tension in sheep cardiac Purkinje fibres. <i>Journal of Physiology</i> , 1987, 390, 93-118.	1.3	85
68	Very slow EEG responses lateralize temporal lobe seizures. <i>Neurology</i> , 2003, 60, 1098-1104.	1.5	85
69	Ionic Mechanisms of Spontaneous GABAergic Events in Rat Hippocampal Slices Exposed to 4-Aminopyridine. <i>Journal of Neurophysiology</i> , 1997, 78, 2582-2591.	0.9	84
70	Interstitial PCO ₂ and pH in rat hippocampal slices measured by means of a novel fast CO ₂ /H ⁺ -sensitive microelectrode based on a PVC-gelled membrane. <i>Pflugers Archiv European Journal of Physiology</i> , 1993, 423, 193-201.	1.3	82
71	Intracellular carbonic anhydrase activity and its role in GABA-induced acidosis in isolated rat hippocampal pyramidal neurones. <i>Acta Physiologica Scandinavica</i> , 1993, 148, 229-231.	2.3	82
72	Acidosis of hippocampal neurones mediated by a plasmalemmal Ca ²⁺ /H ⁺ pump. <i>NeuroReport</i> , 1996, 7, 2000-2004.	0.6	82

#	ARTICLE	IF	CITATIONS
73	Spontaneous epileptiform activity mediated by GABAA receptors and gap junctions in the rat hippocampal slice following long-term exposure to GABAB antagonists. <i>Neuropharmacology</i> , 2002, 43, 563-572.	2.0	82
74	Intrinsic bursting of immature CA3 pyramidal neurons and consequent giant depolarizing potentials are driven by a persistent Na ⁺ current and terminated by a slow Ca ²⁺ -activated K ⁺ current. <i>European Journal of Neuroscience</i> , 2006, 23, 2330-2338.	1.2	79
75	Proton Modulation of Functionally Distinct GABA A Receptors in Acutely Isolated Pyramidal Neurons of Rat Hippocampus. <i>Neuropharmacology</i> , 1996, 35, 1279-1288.	2.0	77
76	Mechanism of action of GABA on intracellular pH and on surface pH in crayfish muscle fibres.. <i>Journal of Physiology</i> , 1990, 427, 241-260.	1.3	75
77	Neuronal carbonic anhydrase VII provides GABAergic excitatory drive to exacerbate febrile seizures. <i>EMBO Journal</i> , 2013, 32, 2275-2286.	3.5	75
78	Pharmacological Isolation of the Synaptic and Nonsynaptic Components of the GABA-Mediated Biphasic Response in Rat CA1 Hippocampal Pyramidal Cells. <i>Journal of Neuroscience</i> , 1999, 19, 9252-9260.	1.7	72
79	Postnatal Development of Rat Hippocampal Gamma Rhythm In Vivo. <i>Journal of Neurophysiology</i> , 2002, 88, 1469-1474.	0.9	70
80	Relationship between neuronal vulnerability and potassium-chloride cotransporter 2 immunoreactivity in hippocampus following transient forebrain ischemia. <i>Neuroscience</i> , 2008, 154, 677-689.	1.1	69
81	Compensatory Enhancement of Intrinsic Spiking upon NKCC1 Disruption in Neonatal Hippocampus. <i>Journal of Neuroscience</i> , 2009, 29, 6982-6988.	1.7	69
82	Scalp-recorded slow EEG responses generated in response to hemodynamic changes in the human brain. <i>Clinical Neurophysiology</i> , 2003, 114, 1744-1754.	0.7	68
83	Spontaneous Network Events Driven by Depolarizing GABA Action in Neonatal Hippocampal Slices are Not Attributable to Deficient Mitochondrial Energy Metabolism. <i>Journal of Neuroscience</i> , 2010, 30, 15638-15642.	1.7	68
84	Intrinsic proton modulation of excitatory transmission in rat hippocampal slices. <i>NeuroReport</i> , 1993, 4, 93-96.	0.6	65
85	Fast Network Oscillations in the Newborn Rat Hippocampus In Vitro. <i>Journal of Neuroscience</i> , 2000, 20, 1170-1178.	1.7	65
86	Premature expression of KCC2 in embryonic mice perturbs neural development by an ion transport-independent mechanism. <i>European Journal of Neuroscience</i> , 2010, 31, 2142-2155.	1.2	64
87	Cortical inhibition, pH and cell excitability in epilepsy: what are optimal targets for antiepileptic interventions?. <i>Journal of Physiology</i> , 2013, 591, 765-774.	1.3	64
88	Studies on the role of metabotropic glutamate receptors in long-term potentiation: some methodological considerations. <i>Journal of Neuroscience Methods</i> , 1995, 59, 19-24.	1.3	61
89	Development of a neural phenotype in differentiating ganglion cell-derived human neuroblastoma cells. <i>Journal of Cellular Physiology</i> , 1986, 128, 285-292.	2.0	60
90	Influence of extracellular and intracellular pH on GABA-gated chloride conductance in crayfish muscle fibres. <i>Neuroscience</i> , 1992, 47, 921-929.	1.1	60

#	ARTICLE	IF	CITATIONS
91	Effect of heparinâ€binding growthâ€associated molecule (HBâ€GAM) on synaptic transmission and early LTP in rat hippocampal slices. <i>European Journal of Neuroscience</i> , 1998, 10, 188-194.	1.2	60
92	GABAergic excitation and K ⁺ -mediated volume transmission in the hippocampus. <i>Progress in Brain Research</i> , 2000, 125, 329-338.	0.9	60
93	Respiratory alkalosis in children with febrile seizures. <i>Epilepsia</i> , 2011, 52, 1949-1955.	2.6	59
94	Extracellular carbonic anhydrase activity facilitates lactic acid transport in rat skeletal muscle fibres. <i>Journal of Physiology</i> , 2001, 531, 743-756.	1.3	58
95	The Multifaceted Roles of KCC2 in Cortical Development. <i>Trends in Neurosciences</i> , 2021, 44, 378-392.	4.2	56
96	Effects of voluntary hyperventilation on cortical sensory responses. <i>Experimental Brain Research</i> , 1999, 125, 248-254.	0.7	55
97	APOE ϵ 4 associates with increased risk of severe COVID-19, cerebral microhaemorrhages and post-COVID mental fatigue: a Finnish biobank, autopsy and clinical study. <i>Acta Neuropathologica Communications</i> , 2021, 9, 199.	2.4	55
98	Vasopressin excites interneurons to suppress hippocampal network activity across a broad span of brain maturity at birth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E10819-E10828.	3.3	54
99	Effect of repetitive activity upon intracellular pH, sodium and contraction in sheep cardiac Purkinje fibres.. <i>Journal of Physiology</i> , 1988, 398, 341-360.	1.3	52
100	BDNF is required for seizure-induced but not developmental up-regulation of KCC2 in the neonatal hippocampus. <i>Neuropharmacology</i> , 2015, 88, 103-109.	2.0	52
101	Carbonic anhydrase activators: Activation of the human isoforms VII (cytosolic) and XIV (transmembrane) with amino acids and amines. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2007, 17, 4107-4112.	1.0	48
102	Sphingosine Inhibits Voltage-operated Calcium Channels in GH4C1 Cells. <i>Journal of Biological Chemistry</i> , 1998, 273, 242-247.	1.6	47
103	Brain alkalosis causes birth asphyxia seizures, suggesting therapeutic strategy. <i>Annals of Neurology</i> , 2011, 69, 493-500.	2.8	47
104	Extracellular alkaline transients mediated by glutamate receptors in the rat hippocampal slice are not due to a proton conductance. <i>Journal of Neurophysiology</i> , 1994, 72, 2031-2033.	0.9	44
105	Nonneuronal Origin of CO ₂ -Related DC EEG Shifts: An In Vivo Study in the Cat. <i>Journal of Neurophysiology</i> , 2004, 92, 1011-1022.	0.9	44
106	GABA Uptake via GABA Transporter-1 Modulates GABAergic Transmission in the Immature Hippocampus. <i>Journal of Neuroscience</i> , 2004, 24, 5877-5880.	1.7	42
107	Opposite effect of membrane raft perturbation on transport activity of KCC2 and NKCC1. <i>Journal of Neurochemistry</i> , 2009, 111, 321-331.	2.1	41
108	Bumepamine, a brain-permeant benzylamine derivative of bumetanide, does not inhibit NKCC1 but is more potent to enhance phenobarbital's anti-seizure efficacy. <i>Neuropharmacology</i> , 2018, 143, 186-204.	2.0	41

#	ARTICLE	IF	CITATIONS
109	Activity-induced enhancement of HB-GAM expression in rat hippocampal slices. <i>NeuroReport</i> , 1996, 7, 1670-1674.	0.6	40
110	NKCC1, an Elusive Molecular Target in Brain Development: Making Sense of the Existing Data. <i>Cells</i> , 2020, 9, 2607.	1.8	40
111	Fall in intracellular pH mediated by GABAA receptors in cultured rat astrocytes. <i>Neuroscience Letters</i> , 1991, 126, 9-12.	1.0	39
112	CO2-evoked release of PGE2 modulates sighs and inspiration as demonstrated in brainstem organotypic culture. <i>ELife</i> , 2016, 5, .	2.8	39
113	Enhanced Temporal Stability of Cholinergic Hippocampal Gamma Oscillations Following Respiratory Alkalosis In Vitro. <i>Journal of Neurophysiology</i> , 2001, 85, 2063-2069.	0.9	37
114	Chloride Homeostasis and GABA Signaling in Temporal Lobe Epilepsy. , 2012, , 581-590.		37
115	Post-Traumatic Hyperexcitability Is Not Caused by Impaired Buffering of Extracellular Potassium. <i>Journal of Neuroscience</i> , 2003, 23, 5865-5876.	1.7	36
116	Dependence of cytoplasmic calcium transients on the membrane potential in isolated nerve endings of the guinea pig. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1985, 815, 203-208.	1.4	35
117	Post-insult activity is a major cause of delayed neuronal death in organotypic hippocampal slices exposed to glutamate. <i>Neuroscience</i> , 2001, 105, 131-137.	1.1	35
118	Inhibition of Carbonic Anhydrase Augments GABAA Receptor-Mediated Analgesia via a Spinal Mechanism of Action. <i>Journal of Pain</i> , 2014, 15, 395-406.	0.7	35
119	Full-Band EEG (FbEEG): A New Standard for Clinical Electroencephalography. <i>Clinical EEG and Neuroscience</i> , 2005, 36, 311-317.	0.9	34
120	Phenobarbital and midazolam suppress neonatal seizures in a noninvasive rat model of birth asphyxia, whereas bumetanide is ineffective. <i>Epilepsia</i> , 2021, 62, 920-934.	2.6	34
121	Inward current caused by sodium-dependent uptake of GABA in the crayfish stretch receptor neurone.. <i>Journal of Physiology</i> , 1992, 453, 627-645.	1.3	33
122	Enhanced expression of potassium-chloride cotransporter KCC2 in human temporal lobe epilepsy. <i>Brain Structure and Function</i> , 2016, 221, 3601-3615.	1.2	32
123	Serum copeptin and neuron specific enolase are markers of neonatal distress and long-term neurodevelopmental outcome. <i>PLoS ONE</i> , 2017, 12, e0184593.	1.1	32
124	Endogenous brain-sparing responses in brain pH and PO ₂ in a rodent model of birth asphyxia. <i>Acta Physiologica</i> , 2020, 229, e13467.	1.8	32
125	The $\alpha 1$ GABA receptor cloned from rat retina is down-modulated by protons. <i>NeuroReport</i> , 1996, 7, 2005-2009.	0.6	31
126	Visually Evoked Gamma Responses in the Human Brain Are Enhanced during Voluntary Hyperventilation. <i>NeuroImage</i> , 2002, 15, 575-586.	2.1	31

#	ARTICLE	IF	CITATIONS
127	Heterogeneous Expression of the Potassium-Chloride Cotransporter KCC2 in Gonadotropin-Releasing Hormone Neurons of the Adult Mouse. <i>Endocrinology</i> , 2003, 144, 3031-3036.	1.4	31
128	CNS pharmacology of NKCC1 inhibitors. <i>Neuropharmacology</i> , 2022, 205, 108910.	2.0	31
129	Acid extrusion via blood-brain barrier causes brain alkalosis and seizures after neonatal asphyxia. <i>Brain</i> , 2012, 135, 3311-3319.	3.7	30
130	Synaptic Activation of GABAA Receptors Induces Neuronal Uptake of Ca ²⁺ in Adult Rat Hippocampal Slices. <i>Journal of Neurophysiology</i> , 1999, 81, 811-816.	0.9	29
131	The sensitivity of liquid sensor, ion-selective microelectrodes to changes in temperature and solution level. <i>Pflugers Archiv European Journal of Physiology</i> , 1986, 406, 641-644.	1.3	28
132	Role of voltage-gated calcium channels in the generation of activity-induced extracellular pH transients in the rat hippocampal slice. <i>Journal of Neurophysiology</i> , 1996, 75, 2354-2360.	0.9	27
133	Comment on "Local impermeant anions establish the neuronal chloride concentration". <i>Science</i> , 2014, 345, 1130-1130.	6.0	27
134	KCC2-Mediated Cl ⁻ Extrusion Modulates Spontaneous Hippocampal Network Events in Perinatal Rats and Mice. <i>Cell Reports</i> , 2019, 26, 1073-1081.e3.	2.9	27
135	Toxicity of pentachlorophenol and 2,3,6-trichlorophenol to the crayfish (<i>Astacus fluviatilis</i> L.). <i>Environmental Pollution (1970)</i> , 1977, 12, 119-123.	1.0	26
136	Mechanism of rate-dependent pH changes in the sheep cardiac Purkinje fibre. <i>Journal of Physiology</i> , 1988, 406, 483-501.	1.3	26
137	Simultaneous measurement of intracellular and extracellular carbonic anhydrase activity in intact muscle fibres. <i>Pflugers Archiv European Journal of Physiology</i> , 1992, 421, 357-363.	1.3	26
138	Vagal Nerve Stimulation Induces Intermittent Hypocapnia. <i>Epilepsia</i> , 2003, 44, 1588-1591.	2.6	26
139	Carbonic anhydrase inhibitors: Inhibition of the cytosolic human isozyme VII with anions. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2006, 16, 3139-3143.	1.0	26
140	Neurobiological and physiological mechanisms of fever-related epileptiform syndromes. <i>Brain and Development</i> , 2009, 31, 378-382.	0.6	26
141	Surge of Peripheral Arginine Vasopressin in a Rat Model of Birth Asphyxia. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 2.	1.8	26
142	A physiologically validated rat model of term birth asphyxia with seizure generation after, not during, brain hypoxia. <i>Epilepsia</i> , 2021, 62, 908-919.	2.6	25
143	Comparison of Umbilical Serum Copeptin Relative to Erythropoietin and S100B as Asphyxia Biomarkers at Birth. <i>Neonatology</i> , 2017, 112, 60-66.	0.9	24
144	Nest Carbon Dioxide Masks GABA-Dependent Seizure Susceptibility in the Naked Mole-Rat. <i>Current Biology</i> , 2020, 30, 2068-2077.e4.	1.8	23

#	ARTICLE	IF	CITATIONS
145	Depolarization of the mitochondrial membrane potential increases free cytosolic calcium in synaptosomes. <i>Neuroscience Letters</i> , 1984, 49, 33-37.	1.0	22
146	GABAergic Control of CA3-driven Network Events in the Developing Hippocampus. , 2008, 44, 99-121.		21
147	Modulation of Spinal GABAergic Analgesia by Inhibition of Chloride Extrusion Capacity in Mice. <i>Journal of Pain</i> , 2012, 13, 546-554.	0.7	21
148	K-Cl Cotransporter 2-mediated Cl ⁻ Extrusion Determines Developmental Stage-dependent Impact of Propofol Anesthesia on Dendritic Spines. <i>Anesthesiology</i> , 2017, 126, 855-867.	1.3	21
149	The NKCC1 ion transporter modulates microglial phenotype and inflammatory response to brain injury in a cell-autonomous manner. <i>PLoS Biology</i> , 2022, 20, e3001526.	2.6	21
150	Fall in intracellular pH and increase in resting tension induced by a mitochondrial uncoupling agent in crayfish muscle.. <i>Journal of Physiology</i> , 1989, 408, 271-293.	1.3	19
151	Postsynaptic fall in intracellular pH and increase in surface ph caused by efflux of formate and acetate anions through GABA-gated channels in crayfish muscle fibres. <i>Neuroscience</i> , 1990, 34, 359-368.	1.1	19
152	Reply to the commentary by Ben-Ari and Delpire: Bumetanide and neonatal seizures: Fiction versus reality. <i>Epilepsia</i> , 2021, 62, 941-946.	2.6	19
153	GAT-1 acts to limit a tonic GABAA current in rat CA3 pyramidal neurons at birth. <i>European Journal of Neuroscience</i> , 2007, 25, 717-722.	1.2	18
154	Pronounced increase in breathing rate in the "hair dryer model" of experimental febrile seizures. <i>Epilepsia</i> , 2008, 49, 926-928.	2.6	18
155	Redox modulation of calcium entry and release of intracellular calcium by thimerosal in GH4C1 pituitary cells. <i>Cell Calcium</i> , 1996, 20, 447-457.	1.1	17
156	Regulation of intracellular pH in sheep cardiac Purkinje fibre: interactions among Na ⁺ , H ⁺ and Ca ²⁺ . <i>Canadian Journal of Physiology and Pharmacology</i> , 1987, 65, 963-969.	0.7	16
157	Different sensitivities of human and rat $\alpha 1$ GABA receptors to extracellular pH. <i>Neuropharmacology</i> , 2000, 39, 977-989.	2.0	16
158	RhoGEF9 splice isoforms influence neuronal maturation and synapse formation downstream of $\beta 2$ GABAA receptors. <i>PLoS Genetics</i> , 2017, 13, e1007073.	1.5	16
159	Changes in [Ca ²⁺] ₀ during anoxia in CNS white matter. <i>NeuroReport</i> , 1998, 9, 1997-2000.	0.6	15
160	Preterm EEG: A Multimodal Neurophysiological Protocol. <i>Journal of Visualized Experiments</i> , 2012, , .	0.2	15
161	Loss of non-canonical KCC 2 functions promotes developmental apoptosis of cortical projection neurons. <i>EMBO Reports</i> , 2020, 21, e48880.	2.0	15
162	Dependence of intracellular free calcium and tension on membrane potential and intracellular pH in single crayfish muscle fibres. <i>Pflugers Archiv European Journal of Physiology</i> , 1990, 416, 501-511.	1.3	14

#	ARTICLE	IF	CITATIONS
163	Long-term outcome in a noninvasive rat model of birth asphyxia with neonatal seizures: Cognitive impairment, anxiety, epilepsy, and structural brain alterations. <i>Epilepsia</i> , 2021, 62, 2826-2844.	2.6	13
164	Bumetanide for neonatal seizures: No light in the pharmacokinetic/dynamic tunnel. <i>Epilepsia</i> , 2022, 63, 1868-1873.	2.6	12
165	Quantitative measurements of the cytosolic Ca ²⁺ activity within isolated guinea pig nerve-endings using entrapped arsenazo III and quin2. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1986, 858, 275-284.	1.4	11
166	General anaesthetics do not impair developmental expression of the KCC2 potassium-chloride cotransporter in neonatal rats during the brain growth spurt. <i>British Journal of Anaesthesia</i> , 2013, 110, i10-i18.	1.5	11
167	Gap Junctions Link Regular-Spiking and Fast-Spiking Interneurons in Layer 5 Somatosensory Cortex. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 204.	1.8	11
168	Quantitative Changes in the Mitochondrial Proteome of Cerebellar Synaptosomes From Preclinical Cystatin B-Deficient Mice. <i>Frontiers in Molecular Neuroscience</i> , 2020, 13, 570640.	1.4	11
169	Deletion of the Na-K-2Cl cotransporter NKCC1 results in a more severe epileptic phenotype in the intrahippocampal kainate mouse model of temporal lobe epilepsy. <i>Neurobiology of Disease</i> , 2021, 152, 105297.	2.1	11
170	Carbonic anhydrase inhibitors suppress seizures in a rat model of birth asphyxia. <i>Epilepsia</i> , 2021, 62, 1971-1984.	2.6	11
171	Glycine Transporter-1 Controls Nonsynaptic Inhibitory Actions of Glycine Receptors in the Neonatal Rat Hippocampus. <i>Journal of Neuroscience</i> , 2014, 34, 10003-10009.	1.7	10
172	Emergence of spontaneous and evoked electroencephalographic activity in the human brain. , 2010, , 229-244.		9
173	Cellular neurophysiological effects of phenol derivatives. <i>Comparative Biochemistry and Physiology Part C: Comparative Pharmacology</i> , 1982, 73, 231-241.	0.2	9
174	Stimulation-induced changes in the intracellular sodium activity of the crayfish stretch receptor. <i>Neuroscience Letters</i> , 1987, 74, 53-57.	1.0	9
175	Chloride homeostasis and GABA signaling in temporal lobe epilepsy. <i>Epilepsia</i> , 2010, 51, 52-52.	2.6	9
176	Brain interstitial pH changes in the subacute phase of hypoxic-ischemic encephalopathy in newborn pigs. <i>PLoS ONE</i> , 2020, 15, e0233851.	1.1	9
177	Optimal resource allocation for novelty detection in a human auditory memory. <i>NeuroReport</i> , 1996, 7, 2479-2482.	0.6	8
178	Effects of two chlorinated phenols on the spontaneous impulse activity of the abdominal tonic motor system in the crayfish (<i>Astacus fluviatilis</i> L.). <i>Bulletin of Environmental Contamination and Toxicology</i> , 1977, 17, 40-48.	1.3	7
179	Cold-adapted protease enables quantitation of surface proteins in the absence of membrane trafficking. <i>BioTechniques</i> , 2011, 50, 255-257.	0.8	6
180	Membrane-potential changes caused by 2,4-DNP and related phenols in resting crayfish axons are not due to uncoupling of mitochondria. <i>Comparative Biochemistry and Physiology Part C: Comparative Pharmacology</i> , 1981, 69, 235-242.	0.2	5

#	ARTICLE	IF	CITATIONS
181	Generation of Ca^{2+} -positive slow waves TM in the preterm EEG: By the brain or by the EEG setup?. <i>Clinical Neurophysiology</i> , 2008, 119, 1453-1454.	0.7	5
182	Carbonic anhydrase seven bundles filamentous actin and regulates dendritic spine morphology and density. <i>EMBO Reports</i> , 2021, 22, e50145.	2.0	5
183	Forebrain-independent generation of hyperthermic convulsions in infant rats. <i>Epilepsia</i> , 2016, 57, e1-6.	2.6	4
184	Inhibition of voltage-dependent potassium conductance by convulsant phenols in the medial giant axon of the crayfish. <i>Comparative Biochemistry and Physiology Part C: Comparative Pharmacology</i> , 1980, 65, 17-24.	0.2	3
185	GABA-gated anion channels in intact crayfish opener muscle fibres and stretch-receptor neurons are neither activated nor desensitized by glutamate. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1992, 170, 521-4.	0.7	3
186	Influence of HEPES- and $\text{CO}_2/\text{HCO}_3^-$ -buffer on Ca^{2+} transients induced by TRH and elevated K^+ in rat pituitary GH4C1 cells. <i>Molecular and Cellular Endocrinology</i> , 1995, 112, 77-82.	1.6	3
187	Treatment of acute migraine by a partial rebreathing device: A randomized controlled pilot study. <i>Cephalalgia</i> , 2018, 38, 1632-1643.	1.8	3
188	Increase in the resting potassium permeability of crayfish axons by pentachlorophenol and trinitrophenol in the absence of extracellular Ca^{2+} . <i>Comparative Biochemistry and Physiology Part C: Comparative Pharmacology</i> , 1982, 73, 353-356.	0.2	1
189	A Prestabilized Harmony. <i>Neuron</i> , 2011, 71, 201-202.	3.8	1
190	Use-dependent block of GABA-activated chloride channels in crayfish muscle fibers by picrate. <i>Comparative Biochemistry and Physiology Part C: Comparative Pharmacology</i> , 1984, 78, 309-313.	0.2	0
191	Quantitative Analysis of Surface Expression of Membrane Proteins Using Cold-Adapted Proteases. <i>Current Protocols in Protein Science</i> , 2013, 73, 3.11.1-3.11.12.	2.8	0
192	Cold-adapted protease enables quantitation of surface proteins in the absence of membrane trafficking. <i>BioTechniques</i> , 2017, 62, xiv.	0.8	0
193	GABAergic Transmission and Neuronal Network Events During Hippocampal Development. , 2010, , 115-136.		0
194	KCC2-Mediated Cl^- Extrusion Modulates Spontaneous Hippocampal Network Events in Perinatal Rats and Mice. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
195	Title is missing!. , 2020, 15, e0233851.		0
196	Title is missing!. , 2020, 15, e0233851.		0
197	Title is missing!. , 2020, 15, e0233851.		0
198	Title is missing!. , 2020, 15, e0233851.		0