Werner Kilb

List of Publications by Year
in descending order

83 papers	4,108 citations	117625 34 h-index	128289 60 g-index
87 all docs	87 docs citations	87 times ranked	3920 citing authors

#	Article	IF	Citations
1	Cl^{âˆ’} uptake promoting depolarizing GABA actions in immature rat neocortical neurones is mediated by NKCC1. Journal of Physiology, 2004, 557, 829-841.	2.9	476
2	Rapid developmental switch in the mechanisms driving early cortical columnar networks. Nature, 2006, 439, 79-83.	27.8	296
3	Spontaneous Neuronal Activity in Developing Neocortical Networks: From Single Cells to Large-Scale Interactions. Frontiers in Neural Circuits, 2016, 10, 40.	2.8	201
4	Thalamic Network Oscillations Synchronize Ontogenetic Columns in the Newborn Rat Barrel Cortex. Cerebral Cortex, 2013, 23, 1299-1316.	2.9	157
5	Kinetic Properties of Cl^{âˆ’}Uptake Mediated by Na⁺-Dependent K⁺-2Cl^{âˆ’}Cotransport in Immature Rat Neocortical Neurons. Journal of Neuroscience, 2007, 27, 8616-8627.	3.6	150
6	Functional Synaptic Projections onto Subplate Neurons in Neonatal Rat Somatosensory Cortex. Journal of Neuroscience, 2002, 22, 7165-7176.	3.6	149
7	Development of the GABAergic System from Birth to Adolescence. Neuroscientist, 2012, 18, 613-630.	3.5	145
8	GABA-A Receptors Regulate Neocortical Neuronal Migration In Vitro and In Vivo. Cerebral Cortex, 2006, 17, 138-148.	2.9	118
9	Electrical activity patterns and the functional maturation of the neocortex. European Journal of Neuroscience, 2011, 34, 1677-1686.	2.6	116
10	Electrical activity controls area-specific expression of neuronal apoptosis in the mouse developing cerebral cortex. ELife, 2017, 6, .	6.0	91
11	Cellular physiology of the neonatal rat cerebral cortex: Intrinsic membrane properties, sodium and calcium currents. Journal of Neuroscience Research, 2000, 62, 574-584.	2.9	90
12	Subplate cells: amplifiers of neuronal activity in the developing cerebral cortex. Frontiers in Neuroanatomy, 2009, 3, 19.	1.7	90
13	Neuronal precursor-specific activity of a human doublecortin regulatory sequence. Journal of Neurochemistry, 2005, 92, 264-282.	3.9	87
14	Sensory-Evoked and Spontaneous Gamma and Spindle Bursts in Neonatal Rat Motor Cortex. Journal of Neuroscience, 2014, 34, 10870-10883.	3.6	84
15	Model-specific effects of bumetanide on epileptiform activity in the in-vitro intact hippocampus of the newborn mouse. Neuropharmacology, 2007, 53, 524-533.	4.1	82
16	Laminar and Columnar Structure of Sensory-Evoked Multineuronal Spike Sequences in Adult Rat Barrel Cortex In Vivo. Cerebral Cortex, 2015, 25, 2001-2021.	2.9	82
17	Early GABAergic circuitry in the cerebral cortex. Current Opinion in Neurobiology, 2014, 26, 72-78.	4.2	76
18	Selfâ€organization of repetitive spike patterns in developing neuronal networks <i>in vitro</i>. European Journal of Neuroscience, 2010, 32, 1289-1299.	2.6	75

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19	Neonatal NMDA Receptor Blockade Disturbs Neuronal Migration in Rat Somatosensory Cortex In Vivo. Cerebral Cortex, 2004, 15, 349-358.	2.9	69
20	Modulation of Neocortical Development by Early Neuronal Activity: Physiology and Pathophysiology. Frontiers in Cellular Neuroscience, 2017, 11, 379.	3.7	63
21	The Superior Function of the Subplate in Early Neocortical Development. Frontiers in Neuroanatomy, 2018, 12, 97.	1.7	60
22	Characterization of a Hyperpolarization-Activated Inward Current in Cajal-Retzius Cells in Rat Neonatal Neocortex. Journal of Neurophysiology, 2000, 84, 1681-1691.	1.8	57
23	Role of tonic GABAergic currents during pre- and early postnatal rodent development. Frontiers in Neural Circuits, 2013, 7, 139.	2.8	57
24	Spontaneous GABAergic postsynaptic currents in Cajal-Retzius cells in neonatal rat cerebral cortex. European Journal of Neuroscience, 2001, 13, 1387-1390.	2.6	56
25	Layer-specific expression of Clâˆ' transporters and differential [Clâˆ']i in newborn rat cortex. NeuroReport, 2002, 13, 2433-2437.	1.2	56
26	Hypoosmolar conditions reduce extracellular volume fraction and enhance epileptiform activity in the CA3 region of the immature rat hippocampus. Journal of Neuroscience Research, 2006, 84, 119-129.	2.9	56
27	Neocortical Layer 6B as a Remnant of the Subplate - A Morphological Comparison. Cerebral Cortex, 2017, 27, bhv279.	2.9	56
28	Taurine as an Essential Neuromodulator during Perinatal Cortical Development. Frontiers in Cellular Neuroscience, 2017, 11, 328.	3.7	55
29	Spindle Bursts in Neonatal Rat Cerebral Cortex. Neural Plasticity, 2016, 2016, 1-11.	2.2	49
30	Homeostatic interplay between electrical activity and neuronal apoptosis in the developing neocortex. Neuroscience, 2017, 358, 190-200.	2.3	49
31	Comparison of spike parameters from optically identified GABAergic and glutamatergic neurons in sparse cortical cultures. Frontiers in Cellular Neuroscience, 2014, 8, 460.	3.7	48
32	Long-Term Potentiation in the Neonatal Rat Barrel Cortex In Vivo. Journal of Neuroscience, 2012, 32, 9511-9516.	3.6	43
33	Changes in the expression of cation-Clâˆ' cotransporters, NKCC1 and KCC2, during cortical malformation induced by neonatal freeze-lesion. Neuroscience Research, 2007, 59, 288-295.	1.9	40
34	Cellular physiology of the neonatal rat cerebral cortex. Brain Research Bulletin, 2003, 60, 345-353.	3.0	37
35	Carbachol-induced Network Oscillations in the Intact Cerebral Cortex of the Newborn Rat. Cerebral Cortex, 2003, 13, 409-421.	2.9	37
36	Glycine Receptors Mediate Excitation of Subplate Neurons in Neonatal Rat Cerebral Cortex. Journal of Neurophysiology, 2008, 100, 698-707.	1.8	34

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37	Cannabinoid receptor-interacting protein Crip1a modulates CB1 receptor signaling in mouse hippocampus. Brain Structure and Function, 2016, 221, 2061-2074.	2.3	33
38	Electrophysiological and morphological properties of Cajalâ€“Retzius cells with different ontogenetic origins. Neuroscience, 2010, 167, 724-734.	2.3	32
39	Activation of glycine receptors modulates spontaneous epileptiform activity in the immature rat hippocampus. Journal of Physiology, 2014, 592, 2153-2168.	2.9	30
40	Propagation of spontaneous slow-wave activity across columns and layers of the adult rat barrel cortex in vivo. Brain Structure and Function, 2016, 221, 4429-4449.	2.3	30
41	Development of the whisker-to-barrel cortex system. Current Opinion in Neurobiology, 2018, 53, 29-34.	4.2	27
42	Activity-dependent scaling of GABAergic excitation by dynamic Clâˆ’ changes in Cajalâ€“Retzius cells. Pflugers Archiv European Journal of Physiology, 2011, 461, 557-565.	2.8	26
43	Early developmental alterations of low-Mg2+-induced epileptiform activity in the intact corticohippocampal formation of the newborn mouse in vitro. Brain Research, 2006, 1077, 170-177.	2.2	24
44	Autism Related Neuroligin-4 Knockout Impairs Intracortical Processing but not Sensory Inputs in Mouse Barrel Cortex. Cerebral Cortex, 2018, 28, 2873-2886.	2.9	24
45	High Stimulus-Related Information in Barrel Cortex Inhibitory Interneurons. PLoS Computational Biology, 2015, 11, e1004121.	3.2	23
46	Glycine receptors influence radial migration in the embryonic mouse neocortex. NeuroReport, 2011, 22, 509-513.	1.2	21
47	Altered morphological and electrophysiological properties of Cajal-Retzius cells in cerebral cortex of embryonic Presenilin-1 knockout mice. European Journal of Neuroscience, 2004, 20, 2749-2756.	2.6	20
48	When Are Depolarizing GABAergic Responses Excitatory?. Frontiers in Molecular Neuroscience, 2021, 14, 747835.	2.9	20
49	Phasic GABA_Aâ€receptor activation is required to suppress epileptiform activity in the CA3 region of the immature rat hippocampus. Epilepsia, 2012, 53, 888-896.	5.1	19
50	Giant Depolarizing Potentials Trigger Transient Changes in the Intracellular Cl- Concentration in CA3 Pyramidal Neurons of the Immature Mouse Hippocampus. Frontiers in Cellular Neuroscience, 2018, 12, 420.	3.7	19
51	Activity-dependent endogenous taurine release facilitates excitatory neurotransmission in the neocortical marginal zone of neonatal rats. Frontiers in Cellular Neuroscience, 2014, 8, 33.	3.7	17
52	Ultramicroelectrodes for membrane research. Electrochimica Acta, 1997, 42, 3197-3205.	5.2	16
53	Taurine activates GABAergic networks in the neocortex of immature mice. Frontiers in Cellular Neuroscience, 2014, 8, 26.	3.7	16
54	Interactions between Membrane Resistance, GABA-A Receptor Properties, Bicarbonate Dynamics and Clâˆ’-Transport Shape Activity-Dependent Changes of Intracellular Clâˆ’ Concentration. International Journal of Molecular Sciences, 2019, 20, 1416.	4.1	16

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55	Resonance properties of different neuronal populations in the immature mouse neocortex. European Journal of Neuroscience, 2012, 36, 2753-2762.	2.6	15
56	Comment on â€œLocal impermeant anions establish the neuronal chloride concentrationâ€. Science, 2014, 345, 1130-1130.	12.6	15
57	Intrinsic activation of GABA_A receptors suppresses epileptiform activity in the cerebral cortex of immature mice. Epilepsia, 2010, 51, 1483-1492.	5.1	14
58	Coincident glutamatergic depolarizations enhance GABAA receptor-dependent Cl- influx in mature and suppress Cl- efflux in immature neurons. PLoS Computational Biology, 2021, 17, e1008573.	3.2	13
59	Optogenetically Controlled Activity Pattern Determines Survival Rate of Developing Neocortical Neurons. International Journal of Molecular Sciences, 2021, 22, 6575.	4.1	13
60	Mechanism of the kainate-induced intracellular acidification in leech Retzius neurons. Brain Research, 1999, 824, 168-182.	2.2	12
61	Intact In Vitro Preparations of the Neonatal Rodent Cortex: Analysis of Cellular Properties and Network Activity. Neuromethods, 2012, , 301-314.	0.3	12
62	Malformations of Cortical Development and Neocortical Focus. International Review of Neurobiology, 2014, 114, 35-61.	2.0	11
63	Taurine potentiates the anticonvulsive effect of the <scp>GABA_A</scp> agonist muscimol and pentobarbital in the immature mouse hippocampus. Epilepsia, 2019, 60, 464-474.	5.1	11
64	Gadd45Î± modulates aversive learning through postâ€transcriptional regulation of memoryâ€related <scp>mRNA</scp> s. EMBO Reports, 2019, 20, .	4.5	11
65	The expression mechanism of the residual LTP in the CA1 region of BDNF k.o. mice is insensitive to NO synthase inhibition. Brain Research, 2011, 1391, 14-23.	2.2	10
66	Resonance properties of GABAergic interneurons in immature GAD67-GFP mouse neocortex. Brain Research, 2014, 1548, 1-11.	2.2	10
67	Putative Role of Taurine as Neurotransmitter During Perinatal Cortical Development. Advances in Experimental Medicine and Biology, 2017, 975 Pt 1, 281-292.	1.6	8
68	TRESK channel contributes to depolarization-induced shunting inhibition and modulates epileptic seizures. Cell Reports, 2021, 36, 109404.	6.4	8
69	Dopaminergic modulation of lowâ€Mg²⁺â€induced epileptiform activity in the intact hippocampus of the newborn mouse in vitro. Journal of Neuroscience Research, 2012, 90, 2020-2033.	2.9	6
70	Coincident Activation of Glutamate Receptors Enhances GABAA Receptor-Induced Ionic Plasticity of the Intracellular Clâˆ’-Concentration in Dissociated Neuronal Cultures. Frontiers in Cellular Neuroscience, 2019, 13, 497.	3.7	6
71	Modelling the spatial and temporal constrains of the GABAergic influence on neuronal excitability. PLoS Computational Biology, 2021, 17, e1009199.	3.2	6
72	Inhibition of different GABA transporter systems is required to attenuate epileptiform activity in the CA3 region of the immature rat hippocampus. Epilepsy Research, 2014, 108, 182-189.	1.6	5

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73	Cajal-Retzius cells: organizers of cortical development. E-Neuroforum, 2016, 7, 82-88.	0.1	5
74	NKCC-1 mediated Clâˆ' uptake in immature CA3 pyramidal neurons is sufficient to compensate phasic GABAergic inputs. Scientific Reports, 2020, 10, 18399.	3.3	5
75	Allopregnanolone augments epileptiform activity of an in-vitro mouse hippocampal preparation in the first postnatal week. Epilepsy Research, 2019, 157, 106196.	1.6	3
76	The relation between neuronal chloride transporter activities, GABA inhibition, and neuronal activity. , 2020, , 43-57.		3
77	Cajal-Retzius cells: organizers of cortical development. E-Neuroforum, 2016, 22, 82-88.	0.1	1
78	Cajalâ€"Retzius and subplate cells: transient cortical neurons and circuits with long-term impact. , 2020, , 485-505.		1
79	Feedback control of intracellular pH by means of iontophoretic H+/OHâ€" injection. Pflugers Archiv European Journal of Physiology, 2001, 443, 54-60.	2.8	0
80	Rapid developmental switch in the mechanisms driving early cortical columnar networks. E-Neuroforum, 2006, 12, 203-206.	0.1	0
81	Response: Ã¢â,¬Å"Commentary: Comparison of spike parameters from optically identified GABAergic and glutamatergic neurons in sparse cortical culturesÃ¢â,¬Â• Frontiers in Cellular Neuroscience, 2015, 9, 224.	3.7	0
82	Commentary: â€œNitric oxide releases Clâˆ' from acidic organelles in retinal amacrine cellsâ€• Frontiers in Cellular Neuroscience, 2015, 9, 401.	3.7	0
83	Methylxanthineâ€evoked seizureâ€like perturbation of isolated newborn rat hippocampal and cortical networks. FASEB Journal, 2011, 25, lb522.	0.5	0