

# Wolfgang Walz

## List of Publications by Year in descending order

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68  
papers

4,226  
citations

117625

34  
h-index

114465

63  
g-index

70  
all docs

70  
docs citations

70  
times ranked

2703  
citing authors

#	ARTICLE	IF	CITATIONS
1	Neutrophil Infiltration and Matrix Metalloproteinase-9 in Lacunar Infarction. <i>Neurochemical Research</i> , 2017, 42, 2560-2565.	3.3	30
2	Inhibition of Brain Swelling after Ischemia-Reperfusion by $\beta$ -Adrenergic Antagonists: Correlation with Increased $K^+$ and Decreased $Ca^{2+}$ Concentrations in Extracellular Fluid. <i>BioMed Research International</i> , 2014, 2014, 1-10.	1.9	20
3	Prolonged Adenosine A1 Receptor Activation in Hypoxia and Pial Vessel Disruption Focal Cortical Ischemia Facilitates Clathrin-Mediated AMPA Receptor Endocytosis and Long-Lasting Synaptic Inhibition in Rat Hippocampal CA3-CA1 Synapses: Differential Regulation of GluA2 and GluA1 Subunits by p38 MAPK and INK. <i>Journal of Neuroscience</i> , 2014, 34, 9621-9643.	3.6	54
4	Involvement of matrix metalloproteinases $\alpha$ 2 and $\alpha$ 9 in the formation of a lacuna-like cerebral cavity. <i>Journal of Neuroscience Research</i> , 2013, 91, 920-933.	2.9	7
5	The Impact of Extracellular Potassium Accumulation in Stroke. , 2012, , 363-372.		0
6	Doublecortin-expressing cells in the ischemic penumbra of a small vessel stroke. <i>Journal of Neuroscience Research</i> , 2008, 86, 883-893.	2.9	12
7	Minocycline treatment prevents cavitation in rats after a cortical devascularizing lesion. <i>Brain Research</i> , 2006, 1090, 172-181.	2.2	25
8	The Need for Animal Models in Small-Vessel Brain Disease. <i>Critical Reviews in Neurobiology</i> , 2006, 18, 5-11.	3.1	11
9	Potassium homeostasis in the ischemic brain. <i>Glia</i> , 2005, 50, 407-416.	4.9	122
10	Complex Expression and Localization of Inactivating Kv Channels in Cultured Hippocampal Astrocytes. <i>Journal of Neurophysiology</i> , 2005, 93, 1699-1709.	1.8	31
11	pCLCA1 lacks inherent chloride channel activity in an epithelial colon carcinoma cell line. <i>American Journal of Physiology - Renal Physiology</i> , 2004, 287, G33-G41.	3.4	27
12	Vimentin-expressing proximal reactive astrocytes correlate with migration rather than proliferation following focal brain injury. <i>Brain Research</i> , 2004, 1024, 193-202.	2.2	47
13	Unusual topographical pattern of proximal astrogliosis around a cortical devascularizing lesion. <i>Journal of Neuroscience Research</i> , 2003, 73, 497-506.	2.9	26
14	Potassium homeostasis in the brain at the organ and cell level. <i>Advances in Molecular and Cell Biology</i> , 2003, 31, 595-609.	0.1	9
15	pCLCA1 becomes a cAMP-dependent chloride conductance mediator in Caco-2 cells. <i>Biochemical and Biophysical Research Communications</i> , 2002, 298, 531-536.	2.1	30
16	Intracellular chloride modulates A-type potassium currents in astrocytes. <i>Glia</i> , 2002, 39, 207-216.	4.9	47
17	Chloride/anion channels in glial cell membranes. <i>Glia</i> , 2002, 40, 1-10.	4.9	72
18	Ion channels in cultured microglia. <i>Microscopy Research and Technique</i> , 2001, 54, 26-33.	2.2	21

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19	Controversy surrounding the existence of discrete functional classes of astrocytes in adult gray matter. <i>Glia</i> , 2000, 31, 95-103.	4.9	130
20	Role of astrocytes in the clearance of excess extracellular potassium. <i>Neurochemistry International</i> , 2000, 36, 291-300.	3.8	396
21	The Initiation of the Microglial Response. <i>Brain Pathology</i> , 2000, 10, 137-143.	4.1	69
22	Evidence for Chloride Ions as Intracellular Messenger Substances in Astrocytes. <i>Journal of Neurophysiology</i> , 1999, 82, 248-254.	1.8	29
23	GABAA receptor agonists modulate K <sup>+</sup> currents in adult hippocampal glial cells in situ. <i>Glia</i> , 1999, 26, 129-138.	4.9	30
24	Independent mechanisms of potassium clearance by astrocytes in gliotic tissue. <i>Journal of Neuroscience Research</i> , 1999, 56, 595-603.	2.9	41
25	Spreading Depression Waves as Mediators of Secondary Injury and of Protective Mechanisms. , 1999, , 35-44.		3
26	Immunocytochemical evidence for a distinct GFAP-negative subpopulation of astrocytes in the adult rat hippocampus. <i>Neuroscience Letters</i> , 1998, 257, 127-130.	2.1	121
27	Role of Astrocytes in the Spreading Depression Signal Between Ischemic Core and Penumbra. <i>Neuroscience and Biobehavioral Reviews</i> , 1997, 21, 135-142.	6.1	24
28	Perforated Patch-Clamp Technique. , 1995, , 155-172.		6
29	Decarboxylation of Dopa by cultured mouse astrocytes. <i>Brain Research</i> , 1993, 626, 306-309.	2.2	63
30	Glial Swelling in Ischemia: A Hypothesis. <i>Developmental Neuroscience</i> , 1993, 15, 216-225.	2.0	51
31	Regulation of the Brain Microenvironment: Transmitters and Ions. , 1993, , 193-228.		30
32	Role of Na <sup>+</sup> /K <sup>+</sup> /Cl <sup>-</sup> cotransport in astrocytes. <i>Canadian Journal of Physiology and Pharmacology</i> , 1992, 70, S260-S262.	1.4	64
33	Coupling of metabolism and electrical activity in cortical astrocytes. <i>Canadian Journal of Physiology and Pharmacology</i> , 1992, 70, S176-S180.	1.4	5
34	Mechanism of rapid K <sup>+</sup> -induced swelling of mouse astrocytes. <i>Neuroscience Letters</i> , 1992, 135, 243-246.	2.1	48
35	Gene Expression of Aromatic L-Amino Acid Decarboxylase in Cultured Rat Glial Cells. <i>Journal of Neurochemistry</i> , 1992, 59, 1172-1175.	3.9	72
36	Anoxia-Induced Changes in Extracellular K <sup>+</sup> and pH in Mammalian Central White Matter. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 1992, 12, 593-602.	4.3	69

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37	Short-circuiting effects of K <sup>+</sup> currents on electrical responses of type-1-like astrocytes from mouse cerebral cortex. <i>Brain Research</i> , 1991, 567, 120-126.	2.2	10
38	Simulation of aspects of ischemia in cell culture: Changes in lactate compartmentation. <i>Glia</i> , 1990, 3, 522-528.	4.9	52
39	Sodium- and bicarbonate-independent regulation of intracellular pH in cultured mouse astrocytes. <i>Neuroscience Letters</i> , 1990, 117, 105-110.	2.1	32
40	Role of glial cells in the regulation of the brain ion microenvironment. <i>Progress in Neurobiology</i> , 1989, 33, 309-333.	5.7	436
41	Resistance of astrocyte electrical membrane properties to acidosis changes in the presence of lactate. <i>Brain Research</i> , 1989, 504, 82-86.	2.2	27
42	pH shifts evoked by neuronal stimulation in slices of rat hippocampus. <i>Canadian Journal of Physiology and Pharmacology</i> , 1989, 67, 577-581.	1.4	41
43	Lactate release from cultured astrocytes and neurons: A comparison. <i>Glia</i> , 1988, 1, 366-370.	4.9	260
44	Electrophysiological properties of glial cells: comparison of brain slices with primary cultures. <i>Brain Research</i> , 1988, 443, 321-324.	2.2	67
45	KCl movements during potassium-induced cytotoxic swelling of cultured astrocytes. <i>Experimental Neurology</i> , 1988, 99, 17-29.	4.1	47
46	Lactate production and release in cultured astrocytes. <i>Neuroscience Letters</i> , 1988, 86, 296-300.	2.1	107
47	Ion Transport and Volume Measurements in Cell Cultures. , 1988, , 441-492.		12
48	Swelling and potassium uptake in cultured astrocytes. <i>Canadian Journal of Physiology and Pharmacology</i> , 1987, 65, 1051-1057.	1.4	109
49	Culture environment and channel-mediated potassium fluxes in astrocytes. <i>Brain Research</i> , 1987, 412, 405-408.	2.2	15
50	Barium-Sensitive Potassium Channels in Astrocytes: Properties and Contribution to the Membrane Input Conductance. <i>Annals of the New York Academy of Sciences</i> , 1986, 481, 386-389.	3.8	13
51	Calcium entry into cultured mouse astrocytes. <i>Neuroscience Letters</i> , 1986, 67, 301-306.	2.1	25
52	A transmembrane sodium cycle in astrocytes. <i>Brain Research</i> , 1986, 368, 226-232.	2.2	63
53	Occurrence of phenolsulfotransferase in primary glial culture cells of rat. <i>Neurochemical Research</i> , 1985, 10, 983-992.	3.3	2
54	Differences in cation transport properties of primary astrocyte cultures from mouse and rat brain. <i>Brain Research</i> , 1985, 340, 333-340.	2.2	62

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55	Carrier-mediated KCl accumulation accompanied by water movements is involved in the control of physiological K <sup>+</sup> levels by astrocytes. <i>Brain Research</i> , 1985, 343, 44-51.	2.2	137
56	Intense Furosemide-Sensitive Potassium Accumulation in Astrocytes in the Presence of Pathologically High Extracellular Potassium Levels. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 1984, 4, 301-304.	4.3	85
57	Astrocytes in primary cultures: Membrane potential characteristics reveal exclusive potassium conductance and potassium accumulator properties. <i>Brain Research</i> , 1984, 292, 367-374.	2.2	126
58	Electrophysiology of Neuropil Glial Cells in the Central Nervous System of The Leech: A Model System for Potassium Homeostasis in the Brain. <i>Advances in Cellular Neurobiology</i> , 1984, 5, 143-175.	1.0	17
59	Lithium-potassium interaction in acutely treated cortical neurons and astrocytes. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 1983, 7, 697-702.	4.8	12
60	Functional interactions between neurons and astrocytes. II. Potassium homeostasis at the cellular level. <i>Progress in Neurobiology</i> , 1983, 20, 133-183.	5.7	245
61	Comparison between fluxes of potassium and of chloride in astrocytes in primary cultures. <i>Brain Research</i> , 1983, 277, 321-328.	2.2	49
62	The Na <sup>+</sup> -K <sup>+</sup> pump in neuropile glial cells of the medicinal leech. <i>Brain Research</i> , 1983, 267, 93-100.	2.2	16
63	External ions and membrane potential of leech neuropile glial cells. <i>Brain Research</i> , 1982, 239, 119-138.	2.2	40
64	Ionic mechanism of a hyperpolarizing 5-hydroxytryptamine effect on leech neuropile glial cells. <i>Brain Research</i> , 1982, 250, 111-121.	2.2	63
65	Do neuronal signals regulate potassium flow in glial cells? Evidence from an invertebrate central nervous system. <i>Journal of Neuroscience Research</i> , 1982, 7, 71-79.	2.9	24
66	Acute and chronic effects of lithium in therapeutically relevant concentrations on potassium uptake into astrocytes. <i>Psychopharmacology</i> , 1982, 78, 309-313.	3.1	15
67	Ouabain-Sensitive and Ouabain-Resistant Net Uptake of Potassium into Astrocytes and Neurons in Primary Cultures. <i>Journal of Neurochemistry</i> , 1982, 39, 70-77.	3.9	134
68	Fluorescence marking of neuropile glial cells in the central nervous system of the leech <i>Hirudo medicinalis</i> . <i>Cell and Tissue Research</i> , 1980, 209, 257-69.	2.9	23