Jerzy W Mozrzymas

List of Publications by Year
in descending order

103 papers	2,454 citations	218592 26 h-index	265120 42 g-index
104 all docs	104 docs citations	104 times ranked	2887 citing authors

#	Article	IF	Citations
1	Interaction between GABAA receptor Î±1 and Î²2 subunits at the N-terminal peripheral regions is crucial for receptor binding and gating. Biochemical Pharmacology, 2021, 183, 114338.	2.0	7
2	Long-term plasticity of inhibitory synapses in the hippocampus and spatial learning depends on matrix metalloproteinase 3. Cellular and Molecular Life Sciences, 2021, 78, 2279-2298.	2.4	12
3	Mutations at the M2 and M3 Transmembrane Helices of the GABA_ARs Î±₁ and Î²₂ Subunits Affect Primarily Late Gating Transitions Including Opening/Closing and Desensitization. ACS Chemical Neuroscience, 2021, 12, 2421-2436.	1.7	5
4	Induction of Inhibitory Synaptic Plasticity Enhances Tonic Current by Increasing the Content of Î±5-Subunit Containing GABAA Receptors in Hippocampal Pyramidal Neurons. Neuroscience, 2021, 467, 39-46.	1.1	5
5	Extracellular Metalloproteinases in the Plasticity of Excitatory and Inhibitory Synapses. Cells, 2021, 10, 2055.	1.8	17
6	The Î²2 subunit E155 residue as a proton sensor at the binding site on GABA type A receptors. European Journal of Pharmacology, 2021, 906, 174293.	1.7	2
7	Glycine substitution of Î±1F64 residue at the loop D of GABAA receptor impairs gating â€“ Implications for importance of binding site-channel gate linker rigidity. Biochemical Pharmacology, 2021, 192, 114668.	2.0	4
8	Î±₁ Subunit Histidine 55 at the Interface between Extracellular and Transmembrane Domains Affects Preactivation and Desensitization of the GABA_A Receptor. ACS Chemical Neuroscience, 2021, 12, 562-572.	1.7	10
9	The C loop at the orthosteric binding site is critically involved in GABAA receptor gating. Neuropharmacology, 2020, 166, 107903.	2.0	15
10	Mutations of Î±1F45 residue of GABAA receptor loop G reveal its involvement in agonist binding and channel opening/closing transitions. Biochemical Pharmacology, 2020, 177, 113917.	2.0	10
11	GABAA Receptor Î²2E155 Residue Located at the Agonist-Binding Site Is Involved in the Receptor Gating. Frontiers in Cellular Neuroscience, 2020, 14, 2.	1.8	12
12	Loop G of the Gabaar Orthosteric Binding Site Is Involved Both in Binding and Gating Processes. Biophysical Journal, 2019, 116, 391a.	0.2	0
13	Protons modulate gating of recombinant Î±1Î²2Î³2 GABAA receptor by affecting desensitization and opening transitions. Neuropharmacology, 2019, 146, 300-315.	2.0	12
14	Synaptic Potentiation at Basal and Apical Dendrites of Hippocampal Pyramidal Neurons Involves Activation of a Distinct Set of Extracellular and Intracellular Molecular Cues. Cerebral Cortex, 2019, 29, 283-304.	1.6	27
15	Matrix metalloproteinase-3 in brain physiology and neurodegeneration. Advances in Clinical and Experimental Medicine, 2019, 28, 1717-1722.	0.6	13
16	Spontaneous activity, singly bound states and the impact of alpha 1 Phe64 mutation on GABA A R gating in the novel kinetic model based on the single-channel recordings. Neuropharmacology, 2018, 131, 453-474.	2.0	15
17	Distinct Modulation of Spontaneous and GABA-Evoked Gating by Flurazepam Shapes Cross-Talk Between Agonist-Free and Liganded GABAA Receptor Activity. Frontiers in Cellular Neuroscience, 2018, 12, 237.	1.8	13
18	MMP-3 deficiency does not influence the length and number of CA1 dendrites of hippocampus of adult mice. Acta Neurobiologiae Experimentalis, 2018, 78, 281-286.	0.4	2

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19	MMPâ€3 deficiency does not influence the length and number of CA1 dendrites of hippocampus of adult mice. Acta Neurobiologiae Experimentalis, 2018, 78, 281-286.	0.4	2
20	Matrix Metalloprotease 3 Activity Supports Hippocampal EPSP-to-Spike Plasticity Following Patterned Neuronal Activity via the Regulation of NMDAR Function and Calcium Flux. Molecular Neurobiology, 2017, 54, 804-816.	1.9	15
21	Mechanisms of NMDA Receptor- and Voltage-Gated L-Type Calcium Channel-Dependent Hippocampal LTP Critically Rely on Proteolysis That Is Mediated by Distinct Metalloproteinases. Journal of Neuroscience, 2017, 37, 1240-1256.	1.7	39
22	Overexpression of STIM1 in neurons in mouse brain improves contextual learning and impairs long-term depression. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 1071-1087.	1.9	38
23	Spike Timing-Dependent Plasticity in the Mouse Barrel Cortex Is Strongly Modulated by Sensory Learning and Depends on Activity of Matrix Metalloproteinase 9. Molecular Neurobiology, 2017, 54, 6723-6736.	1.9	12
24	Key Metabolic Enzymes Underlying Astrocytic Upregulation of GABAergic Plasticity. Frontiers in Cellular Neuroscience, 2017, 11, 144.	1.8	6
25	Multifaceted Roles of Metzincins in CNS Physiology and Pathology: From Synaptic Plasticity and Cognition to Neurodegenerative Disorders. Frontiers in Cellular Neuroscience, 2017, 11, 178.	1.8	17
26	Editorial: Neuroplasticity and Extracellular Proteolysis. Frontiers in Cellular Neuroscience, 2016, 10, 59.	1.8	3
27	Comparison of kinetic and pharmacological profiles of recombinant Î±1Î²2L and Î±1Î²2Î³2L GABAA receptors â€“ A clue to the role of intersubunit interactions. European Journal of Pharmacology, 2016, 784, 81-89.	1.7	16
28	CD44: a novel synaptic cell adhesion molecule regulating structural and functional plasticity of dendritic spines. Molecular Biology of the Cell, 2016, 27, 4055-4066.	0.9	58
29	Diverse impact of acute and long-term extracellular proteolytic activity on plasticity of neuronal excitability. Frontiers in Cellular Neuroscience, 2015, 9, 313.	1.8	15
30	Extracellular proteolysis in structural and functional plasticity of mossy fiber synapses in hippocampus. Frontiers in Cellular Neuroscience, 2015, 9, 427.	1.8	103
31	Neuron-astrocyte interaction enhance GABAergic synaptic transmission in a manner dependent on key metabolic enzymes. Frontiers in Cellular Neuroscience, 2015, 9, 120.	1.8	31
32	Diverse impact of neuronal activity at Î¸ frequency on hippocampal longâ€term plasticity. Journal of Neuroscience Research, 2015, 93, 1330-1344.	1.3	7
33	Astrocyteâ€neuron crosstalk regulates the expression and subcellular localization of carbohydrate metabolism enzymes. Glia, 2015, 63, 328-340.	2.5	59
34	Involvement of cellular metabolism in age-related LTP modifications in rat hippocampal slices. Oncotarget, 2015, 6, 14065-14081.	0.8	25
35	Impact of matrix metalloproteinase-9 overexpression on synaptic excitatory transmission and its plasticity in rat CA3-CA1 hippocampal pathway. Journal of Physiology and Pharmacology, 2015, 66, 309-15.	1.1	14
36	Î±₁F64 Residue at GABA_AReceptor Binding Site Is Involved in Gating by Influencing the Receptor Flipping Transitions. Journal of Neuroscience, 2014, 34, 3193-3209.	1.7	34

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37	Matrix metalloprotease activity shapes the magnitude of EPSPs and spike plasticity within the hippocampal CA3 network. Hippocampus, 2014, 24, 135-153.	0.9	29
38	Monoterpene Î±-thujone exerts a differential inhibitory action on GABAA receptors implicated in phasic and tonic GABAergic inhibition. European Journal of Pharmacology, 2013, 702, 38-43.	1.7	23
39	Maintenance of longâ€term potentiation in hippocampal mossy fiberâ€"CA3 pathway requires fineâ€tuned MMPâ€9 proteolytic activity. Hippocampus, 2013, 23, 529-543.	0.9	52
40	Long term potentiation affects intracellular metalloproteinases activity in the mossy fiber â€" CA3 pathway. Molecular and Cellular Neurosciences, 2012, 50, 147-159.	1.0	26
41	Inhibitory effects of oenanthotoxin analogues on GABAergic currents in cultured rat hippocampal neurons depend on the polyacetylenes' polarity. European Journal of Pharmacology, 2012, 683, 35-42.	1.7	9
42	Sex-specificity of associative learning-induced changes in GABAergic tonic inhibition in layer 4 neurons of mouse barrel cortex. Behavioural Brain Research, 2011, 219, 373-377.	1.2	4
43	The effect of glycogen phosphorolysis on basal glutaminergic transmission. Biochemical and Biophysical Research Communications, 2011, 404, 652-655.	1.0	24
44	Impact of Synaptic Neurotransmitter Concentration Time Course on the Kinetics and Pharmacological Modulation of Inhibitory Synaptic Currents. Frontiers in Cellular Neuroscience, 2011, 5, 6.	1.8	44
45	Influence of matrix metalloproteinase MMP-9 on dendritic spine morphology. Journal of Cell Science, 2011, 124, 3369-3380.	1.2	200
46	Influence of matrix metalloproteinase MMP-9 on dendritic spine morphology. Development (Cambridge), 2011, 138, e2008-e2008.	1.2	0
47	Matrix metalloproteinaseâ€9 reversibly affects the time course of NMDAâ€induced currents in cultured rat hippocampal neurons. Hippocampus, 2010, 20, 1105-1108.	0.9	26
48	High Affinity Carnitine Transporters from OCTN Family in Neural Cells. Neurochemical Research, 2010, 35, 743-748.	1.6	26
49	Late phase of longâ€term potentiation in the mossy fiberâ€"CA3 hippocampal pathway is critically dependent on metalloproteinases activity. Hippocampus, 2010, 20, 917-921.	0.9	37
50	Block and allosteric modulation of GABAergic currents by oenanthotoxin in rat cultured hippocampal neurons. British Journal of Pharmacology, 2010, 160, 1302-1315.	2.7	15
51	Pharmacological studies reveal novel aspects of the versatility of GABA_A receptors. Journal of Physiology, 2010, 588, 1381-1382.	1.3	2
52	Sensory Learning Differentially Affects GABAergic Tonic Currents in Excitatory Neurons and Fast Spiking Interneurons in Layer 4 of Mouse Barrel Cortex. Journal of Neurophysiology, 2010, 104, 746-754.	0.9	22
53	LEF1/Î²-Catenin Complex Regulates Transcription of the Cav3.1 Calcium Channel Gene (Cacna1g) in Thalamic Neurons of the Adult Brain. Journal of Neuroscience, 2010, 30, 4957-4969.	1.7	55
54	Estradiol and GABAergic Transmission in the Hippocampus. Vitamins and Hormones, 2010, 82, 279-300.	0.7	20

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55	New insights on the role of gephyrin in regulating both phasic and tonic GABAergic inhibition in rat hippocampal neurons in culture. Neuroscience, 2009, 164, 552-562.	1.1	24
56	Polyacetylenes from Sardinian Oenanthe fistulosa: A Molecular Clue to risus sardonicus. Journal of Natural Products, 2009, 72, 962-965.	1.5	48
57	Erythropoietin affects GABAergic transmission in hippocampal neurons in vitro. Cellular and Molecular Biology Letters, 2008, 13, 649-55.	2.7	6
58	Flurazepam effect on GABAergic currents depends on extracellular pH. British Journal of Pharmacology, 2008, 154, 234-245.	2.7	8
59	17Î²-estradiol affects GABAergic transmission in developing hippocampus. Brain Research, 2008, 1241, 7-17.	1.1	23
60	The attenuating effect of memantine on staurosporine-, salsolinol- and doxorubicin-induced apoptosis in human neuroblastoma SH-SY5Y cells. Neurochemistry International, 2008, 52, 864-877.	1.9	66
61	Electrophysiological description of mechanisms determining synaptic transmission and its modulation. Acta Neurobiologiae Experimentalis, 2008, 68, 256-63.	0.4	2
62	Benzodiazepine receptor agonists affect both binding and gating of recombinant Î±1Î²2Î³2 gamma-aminobutyric acid-A receptors. NeuroReport, 2007, 18, 781-785.	0.6	11
63	17 Î²-estradiol modulates GABAergic synaptic transmission and tonic currents during development in vitro. Neuropharmacology, 2007, 52, 1342-1353.	2.0	11
64	GABA transient sets the susceptibility of mIPSCs to modulation by benzodiazepine receptor agonists in rat hippocampal neurons. Journal of Physiology, 2007, 585, 29-46.	1.3	41
65	Desensitization and binding properties determine distinct Î±1Î²2Î³2 and Î±3Î²2Î³2 GABAA receptor-channel kinetic behavior. European Journal of Neuroscience, 2007, 25, 2726-2740.	1.2	50
66	GABAergic currents in RT and VB thalamic nuclei follow kinetic pattern of Î±3â€•and Î±1â€subunitâ€containing GABA_A receptors. European Journal of Neuroscience, 2007, 26, 657-665.	1.2	16
67	The influence of protons and zinc ions on the steady-state inactivation of Kv1.3 potassium channels. Cellular and Molecular Biology Letters, 2007, 12, 220-30.	2.7	4
68	Membrane voltage differently affects mIPSCs and current responses recorded from somatic excised patches in rat hippocampal cultures. Neuroscience Letters, 2006, 393, 189-193.	1.0	4
69	Membrane voltage modulates the GABAA receptor gating in cultured rat hippocampal neurons. Neuropharmacology, 2006, 50, 143-153.	2.0	13
70	Effect of extracellular pH on recombinant Î±1Î²2Î³2 and Î±1Î²2 GABAA receptors. Neuropharmacology, 2006, 51, 305-314.	2.0	21
71	Interaction between cyclodextrin and neuronal membrane results in modulation of GABAA receptor conformational transitions. British Journal of Pharmacology, 2006, 148, 413-422.	2.7	24
72	The voltage dependence of GABAA receptor gating depends on extracellular pH. NeuroReport, 2005, 16, 1951-1954.	0.6	3

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73	Protection with estradiol in developmental models of apoptotic neurodegeneration. Annals of Neurology, 2005, 58, 266-276.	2.8	71
74	Developmental Changes of GABA Synaptic Transient in Cerebellar Granule Cells. Molecular Pharmacology, 2005, 67, 1221-1228.	1.0	25
75	Dynamism of GABAA receptor activation shapes the â€œpersonalityâ€•of inhibitory synapses. Neuropharmacology, 2004, 47, 945-960.	2.0	55
76	Changes of GABA(A)receptor activation kinetics in hippocampal neurons cultured for different periods of time. Cellular and Molecular Biology Letters, 2004, 9, 61-7.	2.7	3
77	Recombinant Î±1Î²2Î³2 GABAA receptors expressed in HEK293 and in QT6 cells show different kinetics. Neuroscience Letters, 2003, 352, 195-195.	1.0	0
78	Recombinant Î±1Î²2Î³2 GABAA receptors expressed in HEK293 and in QT6 cells show different kinetics. Neuroscience Letters, 2003, 352, 195-198.	1.0	8
79	Declusterization of GABAA Receptors Affects the Kinetic Properties of GABAergic Currents in Cultured Hippocampal Neurons. Journal of Biological Chemistry, 2003, 278, 16271-16279.	1.6	33
80	Binding Sites, Singly Bound States, and Conformation Coupling Shape GABA-Evoked Currents. Journal of Neurophysiology, 2003, 89, 871-883.	0.9	79
81	Modulation of GABA_AReceptors by Hydrogen Ions Reveals Synaptic GABA Transient and a Crucial Role of the Desensitization Process. Journal of Neuroscience, 2003, 23, 7981-7992.	1.7	105
82	Resolving the ionotropic receptor kinetics and modulation in the time scale of synaptic transmission. Cellular and Molecular Biology Letters, 2003, 8, 231-41.	2.7	1
83	Inhibition of the activity of T lymphocyte Kv1.3 channels by extracellular zinc. Biochemical Pharmacology, 2002, 64, 595-607.	2.0	16
84	Saturation and self-inhibition of rat hippocampal GABAAreceptors at high GABA concentrations. European Journal of Neuroscience, 2002, 16, 2253-2259.	1.2	21
85	The effect of poneratoxin on neuromuscular transmission in the rat diaphragm. Cellular and Molecular Biology Letters, 2002, 7, 195-202.	2.7	7
86	Differential effects of chlorpromazine on ionotropic glutamate receptors in cultured rat hippocampal neurons. Neuroscience Letters, 2001, 305, 53-56.	1.0	15
87	Chlorpromazine prolongs the deactivation of N-methyl-d-aspartate-induced currents in cultured rat hippocampal neurons. Neuroscience Letters, 2001, 315, 1-4.	1.0	3
88	Zinc Inhibits Miniature GABAergic Currents by Allosteric Modulation of GABA_AReceptor Gating. Journal of Neuroscience, 2000, 20, 8618-8627.	1.7	54
89	Chlorpromazine Inhibits Miniature GABAergic Currents by Reducing the Binding and by Increasing the Unbinding Rate of GABA_AReceptors. Journal of Neuroscience, 1999, 19, 2474-2488.	1.7	92
90	Facilitation of miniature GABAergic currents by chlorpromazine in cultured rat hippocampal cells. NeuroReport, 1999, 10, 2251-2254.	0.6	9

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91	Changes in Intracellular Calcium Concentration Affect Desensitization of GABAA Receptors in Acutely Dissociated P2â€“P6 Rat Hippocampal Neurons. Journal of Neurophysiology, 1998, 79, 1321-1328.	0.9	21
92	Membrane stretch activates a potassium channel in pig articular chondrocytes. Biochimica Et Biophysica Acta - Biomembranes, 1997, 1329, 205-210.	1.4	33
93	A large-conductance voltage-dependent potassium channel in cultured pig articular chondrocytes. Pflugers Archiv European Journal of Physiology, 1997, 433, 413-427.	1.3	17
94	Propofol blocks voltage-gated potassium channels in human T lymphocytes. Biochemical Pharmacology, 1996, 52, 843-849.	2.0	14
95	Patch-Clamp Study on T-Lymphocyte Potassium Conductance in Patients with Chronic Renal Failure. Nephron, 1996, 72, 587-594.	0.9	3
96	Zinc Modulation of Bicuculline-sensitive and -insensitive GABA Receptors in the Developing Rat Hippocampus. European Journal of Neuroscience, 1996, 8, 2168-2176.	1.2	20
97	Forskolin reduces the activity of the rat muscle embryonic type acetylcholine receptor channel. Brain Research, 1995, 703, 100-104.	1.1	4
98	Potassium Channels of Pig Articular Chondrocytes Are Blocked by Propofol. Biochemical and Biophysical Research Communications, 1994, 202, 31-37.	1.0	11
99	Energy Metabolism, Replicative Ability, Intracellular Calcium Concentration, and Ionic Channels of Horse Articular Chondrocytes. Experimental Cell Research, 1994, 210, 130-136.	1.2	19
100	The Discrete Nature of Biological Membrane Conductance, Channel Interaction Through Electrolyte Layers and the Cable Equation. Journal of Theoretical Biology, 1993, 162, 371-380.	0.8	8
101	An electrophysiological study of the effects of myasthenia gravis sera and complement on rat isolated muscle fibres. Journal of Neuroimmunology, 1993, 45, 155-162.	1.1	5
102	Postsynaptic potentiation and desensitization at the vertebrate end-plate receptors. Progress in Neurobiology, 1992, 38, 19-33.	2.8	21
103	ATP activates junctional and extrajunctional acetylcholine receptor channels in isolated adult rat muscle fibres. Neuroscience Letters, 1992, 139, 217-220.	1.0	17