Ladislav Vyklicky

List of Publications by Year
in descending order

85 papers	4,447 citations	117453 34 h-index	102304 66 g-index
85 all docs	85 docs citations	85 times ranked	3355 citing authors

#	Article	IF	Citations
1	Regulation of NMDA receptor desensitization in mouse hippocampal neurons by glycine. Nature, 1989, 338, 425-427.	13.7	384
2	Modulation of excitatory synaptic transmission by drugs that reduce desensitization at AMPA/kainate receptors. Neuron, 1991, 7, 971-984.	3.8	291
3	Modulation of excitatory amino acid receptors by group IIB metal cations in cultured mouse hippocampal neurones.. Journal of Physiology, 1989, 415, 329-350.	1.3	251
4	Structure, Function, and Pharmacology of NMDA Receptor Channels. Physiological Research, 2014, 63, S191-S203.	0.4	216
5	A kinetic analysis of the modulation of Nâ€methylâ€Dâ€aspartic acid receptors by glycine in mouse cultured hippocampal neurones.. Journal of Physiology, 1990, 428, 333-357.	1.3	201
6	Concanavalin A selectively reduces desensitization of mammalian neuronal quisqualate receptors.. Proceedings of the National Academy of Sciences of the United States of America, 1989, 86, 1411-1415.	3.3	183
7	Modulation of Nâ€methylâ€Dâ€aspartic acid receptor desensitization by glycine in mouse cultured hippocampal neurones.. Journal of Physiology, 1990, 428, 313-331.	1.3	182
8	The effect of external pH changes on responses to excitatory amino acids in mouse hippocampal neurones.. Journal of Physiology, 1990, 430, 497-517.	1.3	151
9	Highly Efficient Fluorescence Quenching with Graphene. Journal of Physical Chemistry C, 2012, 116, 2858-2862.	1.5	140
10	The action of zinc on synaptic transmission and neuronal excitability in cultures of mouse hippocampus.. Journal of Physiology, 1989, 415, 351-365.	1.3	128
11	Sites of antagonist action on N-methyl-D-aspartic acid receptors studied using fluctuation analysis and a rapid perfusion technique. Journal of Neurophysiology, 1988, 60, 645-663.	0.9	118
12	Open channel block of NMDA receptor responses evoked by tricyclic antidepressants. Neuron, 1989, 2, 1221-1227.	3.8	106
13	Subtype-dependence of N-methyl-d-aspartate receptor modulation by pregnenolone sulfate. Neuroscience, 2006, 137, 93-102.	1.1	106
14	Inflammatory Mediators at Acidic pH Activate Capsaicin Receptors in Cultured Sensory Neurons From Newborn Rats. Journal of Neurophysiology, 1998, 79, 670-676.	0.9	103
15	Calciumâ€mediated modulation of Nâ€methylâ€Dâ€aspartate (NMDA) responses in cultured rat hippocampal neurones.. Journal of Physiology, 1993, 470, 575-600.	1.3	99
16	Copper Modulation of NMDA Responses in Mouse and Rat Cultured Hippocampal Neurons. European Journal of Neuroscience, 1996, 8, 2257-2264.	1.2	93
17	Molecular Mechanism of Pregnenolone Sulfate Action at NR1/NR2B Receptors. Journal of Neuroscience, 2004, 24, 10318-10325.	1.7	88
18	Cholesterol modulates open probability and desensitization of NMDA receptors. Journal of Physiology, 2015, 593, 2279-2293.	1.3	86

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19	Neurosteroid modulation of N-methyl-d-aspartate receptors: Molecular mechanism and behavioral effects. Steroids, 2011, 76, 1409-1418.	0.8	63
20	20-Oxo-5Â-Pregnan-3Â-yl Sulfate Is a Use-Dependent NMDA Receptor Inhibitor. Journal of Neuroscience, 2005, 25, 8439-8450.	1.7	59
21	Ethanol inhibits cold-menthol receptor TRPM8 by modulating its interaction with membrane phosphatidylinositol 4,5-bisphosphate. Journal of Neurochemistry, 2007, 100, 211-224.	2.1	55
22	The action of excitatory amino acids on chick spinal cord neurones in culture.. Journal of Physiology, 1987, 386, 425-438.	1.3	52
23	Temperature dependence of NR1/NR2B NMDA receptor channels. Neuroscience, 2008, 151, 428-438.	1.1	52
24	Access of inhibitory neurosteroids to the NMDA receptor. British Journal of Pharmacology, 2012, 166, 1069-1083.	2.7	52
25	Block of NMDA receptor channels by endogenous neurosteroids: implications for the agonist induced conformational states of the channel vestibule. Scientific Reports, 2015, 5, 10935.	1.6	52
26	Key Amino Acid Residues within the Third Membrane Domains of NR1 and NR2 Subunits Contribute to the Regulation of the Surface Delivery of N-methyl-d-aspartate Receptors. Journal of Biological Chemistry, 2012, 287, 26423-26434.	1.6	51
27	The pharmacology of tacrine at N -methyl- d -aspartate receptors. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2017, 75, 54-62.	2.5	49
28	Metabotropic action of postsynaptic kainate receptors triggers hippocampal long-term potentiation. Nature Neuroscience, 2017, 20, 529-539.	7.1	48
29	Preferential Inhibition of Tonically over Phasically Activated NMDA Receptors by Pregnane Derivatives. Journal of Neuroscience, 2016, 36, 2161-2175.	1.7	44
30	Surface Expression, Function, and Pharmacology of Disease-Associated Mutations in the Membrane Domain of the Human GluN2B Subunit. Frontiers in Molecular Neuroscience, 2018, 11, 110.	1.4	41
31	New caged neurotransmitter analogs selective for glutamate receptor sub-types based on methoxynitroindoline and nitrophenylethoxycarbonyl caging groups. Neuropharmacology, 2012, 63, 624-634.	2.0	39
32	A physiologist's view of the N-methyl-D-Aspartate receptor: An allosteric ion channel with multiple regulatory sites. Drug Development Research, 1989, 17, 263-280.	1.4	38
33	Cholesterol modulates presynaptic and postsynaptic properties of excitatory synaptic transmission. Scientific Reports, 2020, 10, 12651.	1.6	38
34	Properties of NMDA receptors in rat spinal cord motoneurons. European Journal of Neuroscience, 1999, 11, 827-836.	1.2	37
35	Cellular and behavioural effects of a new steroidal inhibitor of the N-methyl-d-aspartate receptor 3Î±5Î²-pregnanolone glutamate. Neuropharmacology, 2011, 61, 61-68.	2.0	35
36	Differences in the pore sizes of the and kainate cation channels. Neuroscience Letters, 1988, 89, 313-318.	1.0	34

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37	Pharmacologic Properties of NMDA Receptors. Annals of the New York Academy of Sciences, 1992, 648, 194-204.	1.8	31
38	Intracellular spermine decreases open probability ofN-methyl-d-aspartate receptor channels. Neuroscience, 2004, 125, 879-887.	1.1	31
39	Vanilloid receptor TRPV1 is not activated by vanilloids applied intracellularly. NeuroReport, 2003, 14, 1061-1065.	0.6	28
40	A New Class of Potent <i>N</i>-Methyl-<scp>d</scp>-Aspartate Receptor Inhibitors: Sulfated Neuroactive Steroids with Lipophilic D-Ring Modifications. Journal of Medicinal Chemistry, 2015, 58, 5950-5966.	2.9	26
41	Evidence that excitatory amino acids not only activate the receptor channel complex but also lead to use-dependent block. Brain Research, 1986, 363, 148-151.	1.1	25
42	PIP2 and PIP3 interact with N-terminus region of TRPM4 channel. Biophysical Chemistry, 2015, 205, 24-32.	1.5	25
43	Biochemical and electrophysiological characterization of <i>Nâ€‹</i>glycans on <scp>NMDA</scp> receptor subunits. Journal of Neurochemistry, 2016, 138, 546-556.	2.1	25
44	The LILI Motif of M3-S2 Linkers Is a Component of the NMDA Receptor Channel Gate. Frontiers in Molecular Neuroscience, 2018, 11, 113.	1.4	25
45	Molecular and functional properties of synaptically activated NMDA receptors in neonatal motoneurons in rat spinal cord slices. European Journal of Neuroscience, 2000, 12, 955-963.	1.2	24
46	Axotomyâ€induced changes in the properties of NMDA receptor channels in rat spinal cord motoneurons. Journal of Physiology, 2002, 538, 53-63.	1.3	24
47	Pregnenolone sulfate modulation of N-methyl-d-aspartate receptors is phosphorylation dependent. Neuroscience, 2009, 160, 616-628.	1.1	24
48	Synthesis of C3, C5, and C7 pregnane derivatives and their effect on NMDA receptor responses in cultured rat hippocampal neurons. Steroids, 2009, 74, 256-263.	0.8	22
49	Temperature dependence of N-methyl-d-aspartate receptor channels and N-methyl-d-aspartate receptor excitatory postsynaptic currents. Neuroscience, 2010, 165, 736-748.	1.1	22
50	Physicochemical and biological properties of novel amide-based steroidal inhibitors of NMDA receptors. Steroids, 2017, 117, 52-61.	0.8	22
51	Distinct regions within the GluN2C subunit regulate the surface delivery of NMDA receptors. Frontiers in Cellular Neuroscience, 2014, 8, 375.	1.8	21
52	Spontaneous Openings of NMDA Receptor Channels in Cultured Rat Hippocampal Neurons. European Journal of Neuroscience, 1997, 9, 1999-2008.	1.2	20
53	Total Synthesis of <i>ent</i>-Pregnanolone Sulfate and Its Biological Investigation at the NMDA Receptor. Organic Letters, 2018, 20, 946-949.	2.4	20
54	Positive Modulators of the <i>N</i>-Methyl-<scp>d</scp>-aspartate Receptor: Structureâ€"Activity Relationship Study of Steroidal 3-Hemiesters. Journal of Medicinal Chemistry, 2018, 61, 4505-4516.	2.9	20

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55	Site of Action of Brain Neurosteroid Pregnenolone Sulfate at the N-Methyl-D-Aspartate Receptor. Journal of Neuroscience, 2020, 40, 5922-5936.	1.7	18
56	Effects of steroids on NMDA receptors and excitatory synaptic transmission in neonatal motoneurons in rat spinal cord slices. European Journal of Neuroscience, 2001, 14, 495-502.	1.2	17
57	Pregnenolone Sulfate Activates NMDA Receptor Channels. Physiological Research, 2013, 62, 731-736.	0.4	17
58	Morphology and physiology of lamina I neurons of the caudal part of the trigeminal nucleus. Neuroscience, 2007, 147, 325-333.	1.1	16
59	Single amino acid residue in the M4 domain of GluN1 subunit regulates the surface delivery of <scp>NMDA</scp> receptors. Journal of Neurochemistry, 2012, 123, 385-395.	2.1	16
60	NMDA Receptor Opening and Closingâ€"Transitions of a Molecular Machine Revealed by Molecular Dynamics. Biomolecules, 2019, 9, 546.	1.8	15
61	3Î±5Î²-Pregnanolone glutamate, a use-dependent NMDA antagonist, reversed spatial learning deficit in an animal model of schizophrenia. Behavioural Brain Research, 2012, 235, 82-88.	1.2	14
62	Neurosteroid-like Inhibitors of <i>N</i>-Methyl-<scp>d</scp>-aspartate Receptor: Substituted 2-Sulfates and 2-Hemisuccinates of Perhydrophenanthrene. Journal of Medicinal Chemistry, 2016, 59, 4724-4739.	2.9	12
63	Shared CaMâ€•and S100A1â€binding epitopes in the distal <scp>TRPM</scp>4 N terminus. FEBS Journal, 2018, 285, 599-613.	2.2	12
64	Palmitoylation Controls NMDA Receptor Function and Steroid Sensitivity. Journal of Neuroscience, 2021, 41, 2119-2134.	1.7	12
65	Characterization of the part of N-terminal PIP2 binding site of the TRPM1 channel. Biophysical Chemistry, 2015, 207, 135-142.	1.5	9
66	Strong Inhibitory Effect, Low Cytotoxicity and High Plasma Stability of Steroidal Inhibitors of N-Methyl-D-Aspartate Receptors With C-3 Amide Structural Motif. Frontiers in Pharmacology, 2018, 9, 1299.	1.6	9
67	Spider venom of Araneus opens and desensitizes glutamate channels in chick spinal cord neurones. Neuroscience Letters, 1986, 68, 227-231.	1.0	7
68	The characterization of a novel S100A1 binding site in the N-terminus of TRPM1. International Journal of Biochemistry and Cell Biology, 2016, 78, 186-193.	1.2	7
69	G-Protein Modulation of Glycine-resistant NMDA Receptor Desensitization in Rat Cultured Hippocampal Neurons. European Journal of Neuroscience, 1995, 7, 1826-1830.	1.2	6
70	Azido analogs of neuroactive steroids. Steroids, 2011, 76, 1043-1050.	0.8	6
71	Pregnaneâ€based steroids are novel positive NMDA receptor modulators that may compensate for the effect of lossâ€ofâ€function diseaseâ€associated <i>GRIN</i> mutations. British Journal of Pharmacology, 2022, 179, 3970-3990.	2.7	6
72	Synthesis of deuterium labeled NMDA receptor inhibitor â€" 20-Oxo-5Î²-[9,12,12-2H3]pregnan-3Î±-yl-l-glutamyl 1-ester. Steroids, 2012, 77, 282-287.	0.8	5

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73	Pitfalls of NMDA Receptor Modulation by Neuroactive Steroids. The Effect of Positive and Negative Modulation of NMDA Receptors in an Animal Model of Schizophrenia. Biomolecules, 2021, 11, 1026.	1.8	5
74	Glutamate Receptors in Cultures of Mouse Hippocampus Studied with Fast Applications of Agonists, Modulators and Drugs. Advances in Experimental Medicine and Biology, 1990, 268, 3-11.	0.8	5
75	Cobaltions block l-glutamate and l-aspartate-induced currents in cultured neurons from embryonic chick spinal cord. Neuroscience Letters, 1985, 61, 345-350.	1.0	4
76	Glutamine-induced membrane currents in cultured chick spinal cord neurons. Neuroscience Letters, 1988, 90, 333-337.	1.0	4
77	Axotomy-induced change in the properties of (S)-Î±-amino-3-hydroxy-5-methyl-4-isoxazolepropionate receptor channels in rat motoneurons. Neuroscience, 2000, 99, 119-131.	1.1	4
78	Synthesis of pregnane 3-carboxylic acids via Pd-catalyzed alkoxycarbonylation and their effect on NMDA receptor activity. Collection of Czechoslovak Chemical Communications, 2011, 76, 1141-1161.	1.0	4
79	Endogenous neurosteroids pregnanolone and pregnanolone sulfate potentiate presynaptic glutamate release through distinct mechanisms. British Journal of Pharmacology, 2021, 178, 3888-3904.	2.7	4
80	Analysis of Whole-Cell NMDA Receptor Currents. Neuromethods, 2016, , 205-219.	0.2	4
81	Neuroactive steroids with perfluorobenzoyl group. Steroids, 2012, 77, 1233-1241.	0.8	3
82	Pharmacokinetic, pharmacodynamic, and behavioural studies of deschloroketamine (DCK) in Wistar rats. British Journal of Pharmacology, 2021, , .	2.7	3
83	Ionic currents in neuroblastoma clone E-7 cells. Neuroscience Letters, 1985, 55, 197-201.	1.0	2
84	Evidence for the Association between the Intronic Haplotypes of Ionotropic Glutamate Receptors and First-Episode Schizophrenia. Journal of Personalized Medicine, 2021, 11, 1250.	1.1	1
85	Erratum to â€œNew caged neurotransmitter analogs selective for glutamate receptor sub-types based on methoxynitroindoline and nitrophenylethoxycarbonyl caging groupsâ€•[Neuropharmacology 63 (2012) 624â€“634]. Neuropharmacology, 2013, 65, 245.	2.0	0