Ralf Schneggenburger

List of Publications by Year
in descending order

57 papers	6,600 citations	81900 39 h-index	138484 58 g-index
62 all docs	62 docs citations	62 times ranked	4862 citing authors

#	Article	IF	Citations
1	Fear Learning: An Evolving Picture for Plasticity at Synaptic Afferents to the Amygdala. Neuroscientist, 2024, 30, 87-104.	3.5	3
2	Stimulation of medial amygdala GABA neurons with kinetically different channelrhodopsins yields opposite behavioral outcomes. Cell Reports, 2022, 39, 110850.	6.4	16
3	LTP of inhibition at PV interneuron output synapses requires developmental BMP signaling. Scientific Reports, 2020, 10, 10047.	3.3	4
4	A VTA to Basal Amygdala Dopamine Projection Contributes to Signal Salient Somatosensory Events during Fear Learning. Journal of Neuroscience, 2020, 40, 3969-3980.	3.6	72
5	Role of BMP Signaling for the Formation of Auditory Brainstem Nuclei and Large Auditory Relay Synapses. Developmental Neurobiology, 2019, 79, 155-174.	3.0	8
6	Specific synaptic input strengths determine the computational properties of excitationâ€“inhibition integration in a sound localization circuit. Journal of Physiology, 2018, 596, 4945-4967.	2.9	29
7	Parvalbumin-Interneuron Output Synapses Show Spike-Timing-Dependent Plasticity that Contributes to Auditory Map Remodeling. Neuron, 2018, 99, 720-735.e6.	8.1	45
8	Ultrastructural basis of strong unitary inhibition in a binaural neuron. Journal of Physiology, 2018, 596, 4969-4982.	2.9	10
9	Synaptotagmin2 (Syt2) Drives Fast Release Redundantly with Syt1 at the Output Synapses of Parvalbumin-Expressing Inhibitory Neurons. Journal of Neuroscience, 2017, 37, 4604-4617.	3.6	33
10	An organotypic slice culture to study the formation of calyx of Held synapses in-vitro. PLoS ONE, 2017, 12, e0175964.	2.5	8
11	A Synaptotagmin Isoform Switch during the Development of an Identified CNS Synapse. Neuron, 2016, 90, 984-999.	8.1	39
12	Molecular mechanisms governing Ca2+ regulation of evoked and spontaneous release. Nature Neuroscience, 2015, 18, 935-941.	14.8	86
13	An Exclusion Zone for Ca2+ Channels around Docked Vesicles Explains Release Control by Multiple Channels at a CNS Synapse. PLoS Computational Biology, 2015, 11, e1004253.	3.2	49
14	RIM1 and RIM2 redundantly determine Ca²⁺ channel density and readily releasable pool size at a large hindbrain synapse. Journal of Neurophysiology, 2015, 113, 255-263.	1.8	34
15	An Alien Divalent Ion Reveals a Major Role for Ca2+ Buffering in Controlling Slow Transmitter Release. Journal of Neuroscience, 2014, 34, 12622-12635.	3.6	18
16	Munc18-1 is a dynamically regulated PKC target during short-term enhancement of transmitter release. ELife, 2014, 3, e01715.	6.0	70
17	BMP signaling specifies the development of a large and fast CNS synapse. Nature Neuroscience, 2013, 16, 856-864.	14.8	90
18	Robo3-Driven Axon Midline Crossing Conditions Functional Maturation of a Large Commissural Synapse. Neuron, 2013, 78, 855-868.	8.1	34

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19	Ca2+ channels and transmitter release at the active zone. Cell Calcium, 2012, 52, 199-207.	2.4	47
20	Nigrostriatal overabundance of Î±-synuclein leads to decreased vesicle density and deficits in dopamine release that correlate with reduced motor activity. Acta Neuropathologica, 2012, 123, 653-669.	7.7	132
21	Regulation of transmitter release by Ca2+ and synaptotagmin: insights from a large CNS synapse. Trends in Neurosciences, 2011, 34, 237-246.	8.6	83
22	RIM Determines Ca2+ Channel Density and Vesicle Docking at the Presynaptic Active Zone. Neuron, 2011, 69, 304-316.	8.1	316
23	Synaptotagmin Increases the Dynamic Range of Synapses by Driving Ca2+-Evoked Release and by Clamping a Near-Linear Remaining Ca2+ Sensor. Neuron, 2011, 69, 736-748.	8.1	102
24	Control of Exocytosis by Synaptotagmins and Otoferlin in Auditory Hair Cells. Journal of Neuroscience, 2010, 30, 13281-13290.	3.6	106
25	Interaction between Facilitation and Depression at a Large CNS Synapse Reveals Mechanisms of Short-Term Plasticity. Journal of Neuroscience, 2010, 30, 2007-2016.	3.6	56
26	Developmental expression of Synaptotagmin isoforms in single calyx of Held-generating neurons. Molecular and Cellular Neurosciences, 2010, 44, 374-385.	2.2	20
27	Developmental regulation of the intracellular Ca²⁺ sensitivity of vesicle fusion and Ca²⁺â€“secretion coupling at the rat calyx of Held. Journal of Physiology, 2009, 587, 3009-3023.	2.9	64
28	A limited contribution of Ca²⁺ current facilitation to pairedâ€pulse facilitation of transmitter release at the rat calyx of Held. Journal of Physiology, 2008, 586, 5503-5520.	2.9	56
29	Phorbol Esters Modulate Spontaneous and Ca²⁺-Evoked Transmitter Release via Acting on Both Munc13 and Protein Kinase C. Journal of Neuroscience, 2008, 28, 8257-8267.	3.6	111
30	Parvalbumin Is a Mobile Presynaptic Ca2+ Buffer in the Calyx of Held that Accelerates the Decay of Ca2+ and Short-Term Facilitation. Journal of Neuroscience, 2007, 27, 2261-2271.	3.6	142
31	A Mechanism Intrinsic to the Vesicle Fusion Machinery Determines Fast and Slow Transmitter Release at a Large CNS Synapse. Journal of Neuroscience, 2007, 27, 3198-3210.	3.6	112
32	Posttetanic potentiation critically depends on an enhanced Ca ²⁺ sensitivity of vesicle fusion mediated by presynaptic PKC. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15923-15928.	7.1	77
33	The calyx of Held. Cell and Tissue Research, 2006, 326, 311-337.	2.9	202
34	A Munc13/RIM/Rab3 tripartite complex: from priming to plasticity?. EMBO Journal, 2005, 24, 2839-2850.	7.8	230
35	Allosteric modulation of the presynaptic Ca2+ sensor for vesicle fusion. Nature, 2005, 435, 497-501.	27.8	276
36	Presynaptic calcium and control of vesicle fusion. Current Opinion in Neurobiology, 2005, 15, 266-274.	4.2	301

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37	Interplay between Na+/Ca2+ Exchangers and Mitochondria in Ca2+ Clearance at the Calyx of Held. Journal of Neuroscience, 2005, 25, 6057-6065.	3.6	120
38	Presynaptic Ca2+ Requirements and Developmental Regulation of Posttetanic Potentiation at the Calyx of Held. Journal of Neuroscience, 2005, 25, 5127-5137.	3.6	90
39	Developmental expression of the Ca2+-binding proteins calretinin and parvalbumin at the calyx of Held of rats and mice. European Journal of Neuroscience, 2004, 20, 1473-1482.	2.6	108
40	The Synaptic Vesicle Protein CSPÎ± Prevents Presynaptic Degeneration. Neuron, 2004, 42, 237-251.	8.1	254
41	Heterogeneous Presynaptic Release Probabilities: Functional Relevance for Short-Term Plasticity. Biophysical Journal, 2003, 84, 1563-1579.	0.5	107
42	Probing the Intracellular Calcium Sensitivity of Transmitter Release during Synaptic Facilitation. Neuron, 2003, 37, 801-811.	8.1	169
43	The timing of phasic transmitter release is Ca2+-dependent and lacks a direct influence of presynaptic membrane potential. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15200-15205.	7.1	51
44	Presynaptic Capacitance Measurements and Ca²⁺ Uncaging Reveal Submillisecond Exocytosis Kinetics and Characterize the Ca²⁺ Sensitivity of Vesicle Pool Depletion at a Fast CNS Synapse. Journal of Neuroscience, 2003, 23, 7059-7068.	3.6	66
45	Estimation of quantal parameters at the calyx of Held synapse. Neuroscience Research, 2002, 44, 343-356.	1.9	73
46	Vesicle pools and short-term synaptic depression: lessons from a large synapse. Trends in Neurosciences, 2002, 25, 206-212.	8.6	312
47	Separation of Presynaptic and Postsynaptic Contributions to Depression by Covariance Analysis of Successive EPSCs at the Calyx of Held Synapse. Journal of Neuroscience, 2002, 22, 728-739.	3.6	112
48	Estimation of Quantal Size and Number of Functional Active Zones at the Calyx of Held Synapse by Nonstationary EPSC Variance Analysis. Journal of Neuroscience, 2001, 21, 7889-7900.	3.6	133
49	Intracellular calcium dependence of transmitter release rates at a fast central synapse. Nature, 2000, 406, 889-893.	27.8	699
50	Released Fraction and Total Size of a Pool of Immediately Available Transmitter Quanta at a Calyx Synapse. Neuron, 1999, 23, 399-409.	8.1	544
51	Properties of a Model of Ca++-Dependent Vesicle Pool Dynamics and Short Term Synaptic Depression. Biophysical Journal, 1999, 77, 2418-2429.	0.5	85
52	Altered Voltage Dependence of Fractional Ca2+ Current in N-Methyl-d-Aspartate Channel Pore Mutants with a Decreased Ca2+ Permeability. Biophysical Journal, 1998, 74, 1790-1794.	0.5	20
53	The Epithelial Inward Rectifier Channel Kir7.1 Displays Unusual K⁺Permeation Properties. Journal of Neuroscience, 1998, 18, 8625-8636.	3.6	139
54	Coupling of Permeation and Gating in an NMDA-Channel Pore Mutant. Neuron, 1997, 18, 167-177.	8.1	96

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55	Presynaptic Depression at a Calyx Synapse: The Small Contribution of Metabotropic Glutamate Receptors. Journal of Neuroscience, 1997, 17, 8137-8146.	3.6	251
56	Depolarization-induced calcium signals in the somata of cerebellar Purkinje neurons. Neuroscience Research, 1995, 24, 87-95.	1.9	18
57	GABA-mediated synaptic transmission in neuroendocrine cells: a patch-clamp study in a pituitary slice preparation. Pflugers Archiv European Journal of Physiology, 1992, 421, 364-373.	2.8	25