

Benedikt Grothe

List of Publications by Year in descending order

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Version: 2024-02-01

67
papers

4,872
citations

136950

32
h-index

110387

64
g-index

71
all docs

71
docs citations

71
times ranked

2458
citing authors

#	ARTICLE	IF	CITATIONS
1	Ambient noise exposure induces long-term adaptations in adult brainstem neurons. <i>Scientific Reports</i> , 2021, 11, 5139.	3.3	2
2	Source identity shapes spatial preference in primary auditory cortex during active navigation. <i>Current Biology</i> , 2021, 31, 3875-3883.e5.	3.9	14
3	Ketamine-xylozine anesthesia depth affects auditory neuronal responses in the lateral superior olive complex of the gerbil. <i>Journal of Neurophysiology</i> , 2021, 126, 1660-1669.	1.8	5
4	Extensive GJD2 Expression in the Song Motor Pathway Reveals the Extent of Electrical Synapses in the Songbird Brain. <i>Biology</i> , 2021, 10, 1099.	2.8	2
5	OBSOLETE: The Auditory System Function - An Integrative Perspective. , 2020, , .		1
6	Physiological and anatomical development of glycinergic inhibition in the mouse superior paraolivary nucleus following hearing onset. <i>Journal of Neurophysiology</i> , 2020, 124, 471-483.	1.8	3
7	Sensory Island Task (SIT): A New Behavioral Paradigm to Study Sensory Perception and Neural Processing in Freely Moving Animals. <i>Frontiers in Behavioral Neuroscience</i> , 2020, 14, 576154.	2.0	8
8	The Auditory System Function - An Integrative Perspective. , 2020, , 1-17.		1
9	Biological Aspects of Perceptual Space Formation. <i>Modern Acoustics and Signal Processing</i> , 2020, , 151-171.	0.8	3
10	Cooperative population coding facilitates efficient sound-source separability by adaptation to input statistics. <i>PLoS Biology</i> , 2019, 17, e3000150.	5.6	15
11	Slow NMDA-Mediated Excitation Accelerates Offset-Response Latencies Generated via a Post-Inhibitory Rebound Mechanism. <i>ENeuro</i> , 2019, 6, ENEURO.0106-19.2019.	1.9	16
12	How the Barn Owl Computes Auditory Space. <i>Trends in Neurosciences</i> , 2018, 41, 115-117.	8.6	20
13	Electrogenic <i>N-methyl-D-aspartate</i> receptor signaling enhances binaural responses in the adult brainstem. <i>European Journal of Neuroscience</i> , 2018, 47, 858-865.	2.6	7
14	An auditory brainstem nucleus as a model system for neuronal metabolic demands. <i>European Journal of Neuroscience</i> , 2018, 47, 222-235.	2.6	11
15	Complex and spatially segregated auditory inputs of the mouse superior colliculus. <i>Journal of Physiology</i> , 2018, 596, 5281-5298.	2.9	13
16	Optogenetic Control of Neural Circuits in the Mongolian Gerbil. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 111.	3.7	5
17	Precisely timed inhibition facilitates action potential firing for spatial coding in the auditory brainstem. <i>Nature Communications</i> , 2018, 9, 1771.	12.8	73
18	Input timing for spatial processing is precisely tuned via constant synaptic delays and myelination patterns in the auditory brainstem. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4851-E4858.	7.1	48

#	ARTICLE	IF	CITATIONS
19	Modulation of auditory percepts by transcutaneous electrical stimulation. <i>Hearing Research</i> , 2017, 350, 235-243.	2.0	10
20	Identification of accessory olfactory system and medial amygdala in the zebrafish. <i>Scientific Reports</i> , 2017, 7, 44295.	3.3	53
21	Sound-Evoked Activity Influences Myelination of Brainstem Axons in the Trapezoid Body. <i>Journal of Neuroscience</i> , 2017, 37, 8239-8255.	3.6	78
22	Breakdown of Excitability by Attenuated PRV-152 Infection in Auditory Brainstem Neurons of Mongolian Gerbils. <i>Neuroscience</i> , 2017, 367, 1-9.	2.3	7
23	Binaural Glimpses at the Cocktail Party?. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2016, 17, 461-473.	1.8	13
24	Schalllokalisation mit Mikrosekunden-Pr�azision bei S�ugern: Was verstehen wir daran nicht?. <i>E-Neuroforum</i> , 2015, 21, .	0.1	0
25	Yes, there is a medial nucleus of the trapezoid body in humans. <i>Frontiers in Neuroanatomy</i> , 2015, 9, 35.	1.7	36
26	Sound localization with microsecond precision in mammals: what is it we do not understand?. <i>E-Neuroforum</i> , 2015, 6, 3-10.	0.1	6
27	Tuning of Ranvier node and internode properties in myelinated axons to adjust action potential timing. <i>Nature Communications</i> , 2015, 6, 8073.	12.8	228
28	Nitric oxide signaling modulates synaptic inhibition in the superior paraolivary nucleus (SPN) via cGMP-dependent suppression of KCC2. <i>Frontiers in Neural Circuits</i> , 2014, 8, 65.	2.8	33
29	The natural history of sound localization in mammals – a story of neuronal inhibition. <i>Frontiers in Neural Circuits</i> , 2014, 8, 116.	2.8	128
30	Low-frequency sound affects active micromechanics in the human inner ear. <i>Royal Society Open Science</i> , 2014, 1, 140166.	2.4	23
31	Glycinergic inhibition tunes coincidence detection in the auditory brainstem. <i>Nature Communications</i> , 2014, 5, 3790.	12.8	84
32	Working Wonders? Investigating insight with magic tricks. <i>Cognition</i> , 2014, 130, 174-185.	2.2	84
33	Action Potential Generation in an Anatomically Constrained Model of Medial Superior Olive Axons. <i>Journal of Neuroscience</i> , 2014, 34, 5370-5384.	3.6	36
34	Emphasis of spatial cues in the temporal fine structure during the rising segments of amplitude-modulated sounds II: single-neuron recordings. <i>Journal of Neurophysiology</i> , 2014, 111, 1973-1985.	1.8	33
35	Adaptation in sound localization: from GABAB receptor-mediated synaptic modulation to perception. <i>Nature Neuroscience</i> , 2013, 16, 1840-1847.	14.8	67
36	Depolarization-induced suppression of a glycinergic synapse in the superior olivary complex by endocannabinoids. <i>Journal of Neurochemistry</i> , 2013, 127, 78-90.	3.9	9

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37	Metabolic Maturation of Auditory Neurones in the Superior Olivary Complex. PLoS ONE, 2013, 8, e67351.	2.5	17
38	Adaptation of Binaural Processing in the Adult Brainstem Induced by Ambient Noise. Journal of Neuroscience, 2012, 32, 462-473.	3.6	16
39	Functional localization of neurotransmitter receptors and synaptic inputs to mature neurons of the medial superior olive. Journal of Neurophysiology, 2012, 107, 1186-1198.	1.8	41
40	Modulation of synaptic input by GABA _B receptors improves coincidence detection for computation of sound location. Journal of Physiology, 2012, 590, 3047-3066.	2.9	34
41	Dynamics of binaural processing in the mammalian sound localization pathway – The role of GABA _B receptors. Hearing Research, 2011, 279, 43-50.	2.0	24
42	Frequency-Invariant Representation of Interaural Time Differences in Mammals. PLoS Computational Biology, 2011, 7, e1002013.	3.2	22
43	Medial Superior Olivary Neurons Receive Surprisingly Few Excitatory and Inhibitory Inputs with Balanced Strength and Short-Term Dynamics. Journal of Neuroscience, 2010, 30, 17111-17121.	3.6	107
44	Mechanisms of Sound Localization in Mammals. Physiological Reviews, 2010, 90, 983-1012.	28.8	745
45	Population Coding of Interaural Time Differences in Gerbils and Barn Owls. Journal of Neuroscience, 2010, 30, 11696-11702.	3.6	55
46	Selective filtering to spurious localization cues in the mammalian auditory brainstem. Journal of the Acoustical Society of America, 2009, 126, 2437-2454.	1.1	19
47	Quantification of the three-dimensional morphology of coincidence detector neurons in the medial superior olive of gerbils during late postnatal development. Journal of Comparative Neurology, 2009, 517, 385-396.	1.6	63
48	Experience-dependent refinement of the inhibitory axons projecting to the medial superior olive. Developmental Neurobiology, 2008, 68, 1454-1462.	3.0	61
49	Dynamic changes in level influence spatial coding in the lateral superior olive. Hearing Research, 2008, 238, 58-67.	2.0	23
50	Retrograde GABA Signaling Adjusts Sound Localization by Balancing Excitation and Inhibition in the Brainstem. Neuron, 2008, 59, 125-137.	8.1	100
51	Interaural Time Difference Processing in the Mammalian Medial Superior Olive: The Role of Glycinergic Inhibition. Journal of Neuroscience, 2008, 28, 6914-6925.	3.6	214
52	Efficient Temporal Processing of Naturalistic Sounds. PLoS ONE, 2008, 3, e1655.	2.5	60
53	Synaptic Transmission at the Calyx of Held Under In Vivo-Like Activity Levels. Journal of Neurophysiology, 2007, 98, 807-820.	1.8	121
54	Binaural Response Properties of Low-Frequency Neurons in the Gerbil Dorsal Nucleus of the Lateral Lemniscus. Journal of Neurophysiology, 2006, 96, 1425-1440.	1.8	49

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55	Maturation of glycinergic inhibition in the gerbil medial superior olive after hearing onset. <i>Journal of Physiology</i> , 2005, 568, 497-512.	2.9	117
56	Development of Sound Localization Mechanisms in the Mongolian Gerbil Is Shaped by Early Acoustic Experience. <i>Journal of Neurophysiology</i> , 2005, 94, 1028-1036.	1.8	88
57	Interaural Level Difference Processing in the Lateral Superior Olive and the Inferior Colliculus. <i>Journal of Neurophysiology</i> , 2004, 92, 289-301.	1.8	61
58	Anatomy and projection patterns of the superior olivary complex in the mexican free-tailed bat, <i>Tadarida brasiliensis mexicana</i> . <i>Journal of Comparative Neurology</i> , 2004, 343, 630-646.	1.6	50
59	The Evolution of Central Pathways and Their Neural Processing Patterns. <i>Springer Handbook of Auditory Research</i> , 2004, , 289-359.	0.7	50
60	New roles for synaptic inhibition in sound localization. <i>Nature Reviews Neuroscience</i> , 2003, 4, 540-550.	10.2	299
61	Sound localization and delay lines – do mammals fit the model?. <i>Trends in Neurosciences</i> , 2003, 26, 347-350.	8.6	197
62	Precise inhibition is essential for microsecond interaural time difference coding. <i>Nature</i> , 2002, 417, 543-547.	27.8	524
63	Experience-dependent refinement of inhibitory inputs to auditory coincidence-detector neurons. <i>Nature Neuroscience</i> , 2002, 5, 247-253.	14.8	212
64	Structure and function of the bat superior olivary complex. <i>Microscopy Research and Technique</i> , 2000, 51, 382-402.	2.2	36
65	The evolution of temporal processing in the medial superior olive, an auditory brainstem structure. <i>Progress in Neurobiology</i> , 2000, 61, 581-610.	5.7	117
66	Sensitivity to Interaural Time Differences in the Medial Superior Olive of a Small Mammal, the Mexican Free-Tailed Bat. <i>Journal of Neuroscience</i> , 1998, 18, 6608-6622.	3.6	56
67	Neural Delays Shape Selectivity to Interaural Intensity Differences in the Lateral Superior Olive. <i>Journal of Neuroscience</i> , 1996, 16, 6554-6566.	3.6	119