

Hirokazu Takahashi

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

616
citations

687363

13
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642732

23
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61
all docs

61
docs citations

61
times ranked

731
citing authors

#	ARTICLE	IF	CITATIONS
1	Seizure detection by convolutional neural network-based analysis of scalp electroencephalography plot images. <i>NeuroImage: Clinical</i> , 2019, 22, 101684.	2.7	109
2	Cortical Mapping of Mismatch Negativity with Deviance Detection Property in Rat. <i>PLoS ONE</i> , 2013, 8, e82663.	2.5	62
3	Anesthetic effects of isoflurane on the tonotopic map and neuronal population activity in the rat auditory cortex. <i>European Journal of Neuroscience</i> , 2015, 42, 2298-2311.	2.6	50
4	Microscale pH gradient generation by electrolysis on a light-addressable planar electrode. <i>Sensors and Actuators B: Chemical</i> , 2010, 149, 205-211.	7.8	37
5	Microelectrode mapping of tonotopic, laminar, and field-specific organization of thalamo-cortical pathway in rat. <i>Neuroscience</i> , 2016, 332, 38-52.	2.3	30
6	Development of neural population activity toward self-organized criticality. <i>Neuroscience</i> , 2017, 343, 55-65.	2.3	30
7	Pre-Attentive, Context-Specific Representation of Fear Memory in the Auditory Cortex of Rat. <i>PLoS ONE</i> , 2013, 8, e63655.	2.5	25
8	State-Dependent Propagation of Neuronal Sub-Population in Spontaneous Synchronized Bursts. <i>Frontiers in Systems Neuroscience</i> , 2016, 10, 28.	2.5	25
9	Stimulus Phase Locking of Cortical Oscillation for Auditory Stream Segregation in Rats. <i>PLoS ONE</i> , 2013, 8, e83544.	2.5	24
10	Progressive plasticity of auditory cortex during appetitive operant conditioning. <i>BioSystems</i> , 2010, 101, 37-41.	2.0	23
11	Physical reservoir computing with FORCE learning in a living neuronal culture. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	21
12	Locally embedded presages of global network bursts. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 9517-9522.	7.1	17
13	Autoencoding of long-term scalp electroencephalogram to detect epileptic seizure for diagnosis support system. <i>Computers in Biology and Medicine</i> , 2019, 110, 227-233.	7.0	17
14	Convolutional neural network with autoencoder-assisted multiclass labelling for seizure detection based on scalp electroencephalography. <i>Computers in Biology and Medicine</i> , 2020, 125, 104016.	7.0	16
15	Distributed representation of tone frequency in highly decodable spatio-temporal activity in the auditory cortex. <i>Neural Networks</i> , 2011, 24, 321-332.	5.9	13
16	Mismatch-negativity (MMN) in animal models: Homology of human MMN?. <i>Hearing Research</i> , 2021, 399, 107936.	2.0	13
17	Response Variance in Functional Maps: Neural Darwinism Revisited. <i>PLoS ONE</i> , 2013, 8, e68705.	2.5	13
18	Light-addressed single-neuron stimulation in dissociated neuronal cultures with sparse expression of ChR2. <i>BioSystems</i> , 2012, 107, 106-112.	2.0	11

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19	Vagus nerve stimulation (VNS)-induced layer-specific modulation of evoked responses in the sensory cortex of rats. <i>Scientific Reports</i> , 2020, 10, 8932.	3.3	10
20	Amplitude and phase-locking adaptation of neural oscillation in the rat auditory cortex in response to tone sequence. <i>Neuroscience Research</i> , 2014, 79, 52-60.	1.9	9
21	Learning-Stage-Dependent Plasticity of Temporal Coherence in the Auditory Cortex of Rats. <i>Brain Topography</i> , 2015, 28, 401-410.	1.8	8
22	Neural Autopoiesis: Organizing Self-Boundaries by Stimulus Avoidance in Biological and Artificial Neural Networks. <i>Artificial Life</i> , 2020, 26, 130-151.	1.3	7
23	Selective Activation of Distant Nerve by Surface Electrode Array. <i>IEEE Transactions on Biomedical Engineering</i> , 2007, 54, 563-569.	4.2	6
24	Direction control of information transfer between neuronal populations with asymmetric three-dimensional microstructure. <i>Electronics and Communications in Japan</i> , 2010, 93, 17-25.	0.5	6
25	Condition interference in rats performing a choice task with switched variable- and fixed-reward conditions. <i>Frontiers in Neuroscience</i> , 2015, 9, 27.	2.8	5
26	Auditory, Visual, and Cross-Modal Mismatch Negativities in the Rat Auditory and Visual Cortices. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 721476.	2.0	5
27	Decoding of Auditory Information from Steady-State Neural Activity in Rat Auditory Cortex. <i>Electronics and Communications in Japan</i> , 2014, 97, 17-27.	0.5	4
28	Prepulse inhibition predicts subjective hearing in rats. <i>Scientific Reports</i> , 2021, 11, 18902.	3.3	3
29	Optimization of thin-film configuration for light-addressable stimulation electrode. <i>Electronics and Communications in Japan</i> , 2011, 94, 61-68.	0.5	2
30	Layer-specific representation of long-lasting sustained activity in the rat auditory cortex. <i>Neuroscience</i> , 2019, 408, 91-104.	2.3	2
31	Behavioral evaluation of auditory stream segregation in rats. <i>Neuroscience Research</i> , 2019, 141, 52-62.	1.9	2
32	Separation of Subcortical Component from Cortical Auditory Evoked Potential by Independent Component Analysis. , 2006, 2006, 2284-7.		1
33	Light-Addressed Stimulation and Simultaneous Calcium Imaging for Probing Spatio-Temporal Activity of Cultured Neural Network. , 2007, , .		1
34	Reconstruction of Bursting Activity in Cultured Neuronal Network from State-Space Model and Leader Spatial Activity Pattern. <i>Electronics and Communications in Japan</i> , 2016, 99, 98-106.	0.5	1
35	Short Utterance Speaker Recognition by Reservoir with Self-Organized Mapping. , 2018, , .		1
36	Learning in Dissociated Neuronal Cultures by Low-frequency Stimulation. <i>IEEJ Transactions on Electronics, Information and Systems</i> , 2021, 141, 654-660.	0.2	1

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37	Experimental System to Evaluate Auditory Perception Induced by Microstimulation of Auditory Thalamus of Rats. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 627-633.	0.2	1
38	Deviance Detection Property in Dissociated Cultures of Neurons. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 661-667.	0.2	1
39	Simultaneous Mapping of Neural Activities in Auditory and Visual Cortex of Rat. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 614-619.	0.2	1
40	Information flow in the rat thalamo-cortical system: spontaneous vs. stimulus-evoked activities. Scientific Reports, 2021, 11, 19252.	3.3	1
41	Penetration-Type Microelectrode Array with a Silicone-Rubber Substrate. IEEJ Transactions on Electronics, Information and Systems, 2007, 127, 1549-1555.	0.2	1
42	Photoelectric Properties of a Light-Addressable Electrode with a Low-Conductive Passivation Layer and Spatial Resolution of the Light-Addressed Electrical Stimulation. IEEJ Transactions on Electronics, Information and Systems, 2007, 127, 1581-1587.	0.2	1
43	Different neural activities require different decoders. , 2009, , .		0
44	Penetration-type microelectrode array with a silicone-rubber substrate. Electronics and Communications in Japan, 2009, 92, 21-28.	0.5	0
45	Chronic Co-variation of Neural Network Configuration and Activity in Mature Dissociated Cultures. Electronics and Communications in Japan, 2015, 98, 34-42.	0.5	0
46	Effects of Vagus Nerve Stimulation on Neural Adaptation in Rat Auditory Cortex. Electronics and Communications in Japan, 2017, 100, 34-43.	0.5	0
47	Preference test of sound among multiple alternatives in rats. PLoS ONE, 2018, 13, e0197361.	2.5	0
48	Development of network structure and synchronized firing patterns in dissociated culture of neurons. Electronics and Communications in Japan, 2019, 102, 3-11.	0.5	0
49	Tone frequency representation beyond the tonotopic map: Cross-correlation between ongoing activity in the rat auditory cortex. Neuroscience, 2019, 409, 35-42.	2.3	0
50	Simultaneous mapping of neural activities in auditory and visual cortex of rat. Electronics and Communications in Japan, 2021, 104, e12322.	0.5	0
51	Direction Control of Information Transfer between Neuronal Populations with Asymmetric Three-Dimensional Microstructure. IEEJ Transactions on Electronics, Information and Systems, 2008, 128, 1036-1042.	0.2	0
52	Optimization of Thin-Film Configuration for Light-Addressable Stimulation Electrode. IEEJ Transactions on Electronics, Information and Systems, 2008, 128, 1043-1049.	0.2	0
53	Substructure of Functional Network for Auditory Stream Segregation in Auditory Cortex. IEEJ Transactions on Electronics, Information and Systems, 2012, 132, 1079-1087.	0.2	0
54	Reconstruction of Bursting Activity in Cultured Neuronal Network from State-space Model and Leader Spatial Activity Pattern. IEEJ Transactions on Electronics, Information and Systems, 2015, 135, 971-978.	0.2	0

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55	Effects of Vagus Nerve Stimulation on Neural Adaptation in Rat Auditory Cortex. IEEJ Transactions on Electronics, Information and Systems, 2015, 135, 1112-1119.	0.2	0
56	Spontaneous Local Synchrony Associated with Tinnitus in the Auditory Cortex of Rats. Audiology Japan, 2018, 61, 160-169.	0.1	0
57	Estimation of Transient Dynamics of Primary Visual Cortex. IEEJ Transactions on Electronics, Information and Systems, 2020, 140, 723-729.	0.2	0
58	Light-addressable planar electrode with hydrogenated amorphous silicon and low-conductive passivation layer for stimulation of cultured neurons. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
59	Separation of Subcortical Component from Cortical Auditory Evoked Potential by Independent Component Analysis. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
60	Information Processing Capacity in the Rat Auditory Cortex. IEEJ Transactions on Electronics, Information and Systems, 2022, 142, 569-577.	0.2	0
61	Information Processing Capacity of Dissociated Culture of Cortical Neurons. IEEJ Transactions on Electronics, Information and Systems, 2022, 142, 578-585.	0.2	0