

Hirokazu Takahashi

List of Publications by Year in descending order

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all docs

61
docs citations

61
times ranked

731
citing authors

#	ARTICLE	IF	CITATIONS
1	Information Processing Capacity in the Rat Auditory Cortex. IEEJ Transactions on Electronics, Information and Systems, 2022, 142, 569-577.	0.2	0
2	Information Processing Capacity of Dissociated Culture of Cortical Neurons. IEEJ Transactions on Electronics, Information and Systems, 2022, 142, 578-585.	0.2	0
3	Mismatch-negativity (MMN) in animal models: Homology of human MMN?. Hearing Research, 2021, 399, 107936.	2.0	13
4	Learning in Dissociated Neuronal Cultures by Low-frequency Stimulation. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 654-660.	0.2	1
5	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
6	Deviance Detection Property in Dissociated Cultures of Neurons. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 661-667.	0.2	1
7	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
8	Auditory, Visual, and Cross-Modal Mismatch Negativities in the Rat Auditory and Visual Cortices. Frontiers in Human Neuroscience, 2021, 15, 721476.	2.0	5
9	Prepulse inhibition predicts subjective hearing in rats. Scientific Reports, 2021, 11, 18902.	3.3	3
10	Information flow in the rat thalamo-cortical system: spontaneous vs. stimulus-evoked activities. Scientific Reports, 2021, 11, 19252.	3.3	1
11	Simultaneous mapping of neural activities in auditory and visual cortex of rat. Electronics and Communications in Japan, 2021, 104, e12322.	0.5	0
12	Physical reservoir computing with FORCE learning in a living neuronal culture. Applied Physics Letters, 2021, 119, .	3.3	21
13	Convolutional neural network with autoencoder-assisted multiclass labelling for seizure detection based on scalp electroencephalography. Computers in Biology and Medicine, 2020, 125, 104016.	7.0	16
14	Vagus nerve stimulation (VNS)-induced layer-specific modulation of evoked responses in the sensory cortex of rats. Scientific Reports, 2020, 10, 8932.	3.3	10
15	Neural Autopoiesis: Organizing Self-Boundaries by Stimulus Avoidance in Biological and Artificial Neural Networks. Artificial Life, 2020, 26, 130-151.	1.3	7
16	Estimation of Transient Dynamics of Primary Visual Cortex. IEEJ Transactions on Electronics, Information and Systems, 2020, 140, 723-729.	0.2	0
17	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
18	Seizure detection by convolutional neural network-based analysis of scalp electroencephalography plot images. NeuroImage: Clinical, 2019, 22, 101684.	2.7	109

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19	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
20	Tone frequency representation beyond the tonotopic map: Cross-correlation between ongoing activity in the rat auditory cortex. <i>Neuroscience</i> , 2019, 409, 35-42.	2.3	0
21	Layer-specific representation of long-lasting sustained activity in the rat auditory cortex. <i>Neuroscience</i> , 2019, 408, 91-104.	2.3	2
22	Behavioral evaluation of auditory stream segregation in rats. <i>Neuroscience Research</i> , 2019, 141, 52-62.	1.9	2
23	Short Utterance Speaker Recognition by Reservoir with Self-Organized Mapping. , 2018, , .		1
24	Preference test of sound among multiple alternatives in rats. <i>PLoS ONE</i> , 2018, 13, e0197361.	2.5	0
25	Spontaneous Local Synchrony Associated with Tinnitus in the Auditory Cortex of Rats. <i>Audiology Japan</i> , 2018, 61, 160-169.	0.1	0
26	Development of neural population activity toward self-organized criticality. <i>Neuroscience</i> , 2017, 343, 55-65.	2.3	30
27	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
28	Effects of Vagus Nerve Stimulation on Neural Adaptation in Rat Auditory Cortex. <i>Electronics and Communications in Japan</i> , 2017, 100, 34-43.	0.5	0
29	State-Dependent Propagation of Neuronal Sub-Population in Spontaneous Synchronized Bursts. <i>Frontiers in Systems Neuroscience</i> , 2016, 10, 28.	2.5	25
30	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
31	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
32	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
33	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
34	Chronic Co-variation of Neural Network Configuration and Activity in Mature Dissociated Cultures. <i>Electronics and Communications in Japan</i> , 2015, 98, 34-42.	0.5	0
35	Learning-Stage-Dependent Plasticity of Temporal Coherence in the Auditory Cortex of Rats. <i>Brain Topography</i> , 2015, 28, 401-410.	1.8	8
36	Reconstruction of Bursting Activity in Cultured Neuronal Network from State-space Model and Leader Spatial Activity Pattern. <i>IEEJ Transactions on Electronics, Information and Systems</i> , 2015, 135, 971-978.	0.2	0

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37	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
38	Decoding of Auditory Information from Steady-State Neural Activity in Rat Auditory Cortex. Electronics and Communications in Japan, 2014, 97, 17-27.	0.5	4
39	Amplitude and phase-locking adaptation of neural oscillation in the rat auditory cortex in response to tone sequence. Neuroscience Research, 2014, 79, 52-60.	1.9	9
40	Pre-Attentive, Context-Specific Representation of Fear Memory in the Auditory Cortex of Rat. PLoS ONE, 2013, 8, e63655.	2.5	25
41	Stimulus Phase Locking of Cortical Oscillation for Auditory Stream Segregation in Rats. PLoS ONE, 2013, 8, e83544.	2.5	24
42	Response Variance in Functional Maps: Neural Darwinism Revisited. PLoS ONE, 2013, 8, e68705.	2.5	13
43	Cortical Mapping of Mismatch Negativity with Deviance Detection Property in Rat. PLoS ONE, 2013, 8, e82663.	2.5	62
44	Light-addressed single-neuron stimulation in dissociated neuronal cultures with sparse expression of ChR2. BioSystems, 2012, 107, 106-112.	2.0	11
45	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
46	Optimization of thin-film configuration for light-addressable stimulation electrode. Electronics and Communications in Japan, 2011, 94, 61-68.	0.5	2
47	Distributed representation of tone frequency in highly decodable spatio-temporal activity in the auditory cortex. Neural Networks, 2011, 24, 321-332.	5.9	13
48	Direction control of information transfer between neuronal populations with asymmetric three-dimensional microstructure. Electronics and Communications in Japan, 2010, 93, 17-25.	0.5	6
49	Microscale pH gradient generation by electrolysis on a light-addressable planar electrode. Sensors and Actuators B: Chemical, 2010, 149, 205-211.	7.8	37
50	Progressive plasticity of auditory cortex during appetitive operant conditioning. BioSystems, 2010, 101, 37-41.	2.0	23
51	Different neural activities require different decoders. , 2009, , .		0
52	Penetration-type microelectrode array with a silicone-rubber substrate. Electronics and Communications in Japan, 2009, 92, 21-28.	0.5	0
53	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
54	Optimization of Thin-Film Configuration for Light-Addressable Stimulation Electrode. IEEJ Transactions on Electronics, Information and Systems, 2008, 128, 1043-1049.	0.2	0

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55	Light-Addressed Stimulation and Simultaneous Calcium Imaging for Probing Spatio-Temporal Activity of Cultured Neural Network. , 2007, , .		1
56	Selective Activation of Distant Nerve by Surface Electrode Array. IEEE Transactions on Biomedical Engineering, 2007, 54, 563-569.	4.2	6
57	Penetration-Type Microelectrode Array with a Silicone-Rubber Substrate. IEEJ Transactions on Electronics, Information and Systems, 2007, 127, 1549-1555.	0.2	1
58	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
59	Separation of Subcortical Component from Cortical Auditory Evoked Potential by Independent Component Analysis. , 2006, 2006, 2284-7.		1
60	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
61	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