

Suguru N Kudoh

List of Publications by Year in descending order

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67
papers

462
citations

687363

13
h-index

752698

20
g-index

67
all docs

67
docs citations

67
times ranked

384
citing authors

#	ARTICLE	IF	CITATIONS
1	A simple exploratory algorithm for the accurate and fast detection of spontaneous synaptic events. <i>Biosensors and Bioelectronics</i> , 2002, 17, 773-782.	10.1	55
2	Neuronal cell patterning on a multi-electrode array for a network analysis platform. <i>Biomaterials</i> , 2013, 34, 5210-5217.	11.4	31
3	Long-lasting enhancement of synaptic activity in dissociated cerebral neurons induced by brief exposure to Mg ²⁺ -free conditions. <i>Neuroscience Research</i> , 1997, 28, 337-344.	1.9	28
4	Biomodeling System - Interaction Between Living Neuronal Networks and the Outer World. <i>Journal of Robotics and Mechatronics</i> , 2007, 19, 592-600.	1.0	26
5	Cell Patterning Using a Template of Microstructured Organosilane Layer Fabricated by Vacuum Ultraviolet Light Lithography. <i>Langmuir</i> , 2011, 27, 12521-12532.	3.5	25
6	Operation of Spatiotemporal Patterns Stored in Living Neuronal Networks Cultured on a Microelectrode Array. <i>Journal of Advanced Computational Intelligence and Intelligent Informatics</i> , 2004, 8, 100-107.	0.9	24
7	Femtosecond laser modification of living neuronal network. <i>Applied Physics A: Materials Science and Processing</i> , 2008, 93, 57-63.	2.3	23
8	PKC and CaMKII dependent synaptic potentiation in cultured cerebral neurons. <i>Brain Research</i> , 2001, 915, 79-87.	2.2	22
9	Vitroid – the robot system with an interface between a living neuronal network and outer world. <i>International Journal of Mechatronics and Manufacturing Systems</i> , 2011, 4, 135.	0.1	22
10	Optical trapping of synaptic vesicles in neurons. <i>Applied Physics Letters</i> , 2011, 98, 163705.	3.3	22
11	Resynchronization in neuronal network divided by femtosecond laser processing. <i>NeuroReport</i> , 2008, 19, 771-775.	1.2	21
12	Femtosecond laser-induced stimulation of a single neuron in a neuronal network. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 607-612.	2.3	18
13	Convection Dynamics Forced by Optical Trapping with a Focused Laser Beam. <i>Journal of Physical Chemistry C</i> , 2020, 124, 8323-8333.	3.1	16
14	The heterogeneous distribution of functional synaptic connections in rat hippocampal dissociated neuron cultures. <i>Electronics and Communications in Japan</i> , 2009, 92, 41-49.	0.5	13
15	Effects of electrical stimulation on autonomous electrical activity in a cultured rat hippocampal neuronal network. <i>IEEJ Transactions on Electrical and Electronic Engineering</i> , 2011, 6, 163-167.	1.4	11
16	Micro-channel fabrication by femtosecond laser to arrange neuronal cells on multi-electrode arrays. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 101, 423-428.	2.3	10
17	Surface plasmon-enhanced optical trapping of quantum-dot-conjugated surface molecules on neurons cultured on a plasmonic chip. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 06GN04.	1.5	10
18	14,15-epoxyicosatrienoic acid produced by cytochrome P450s enhances neurite outgrowth of PC12 and rat hippocampal neuronal cells. <i>Pharmacology Research and Perspectives</i> , 2018, 6, e00428.	2.4	10

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19	A synaptic potentiation by a protein factor distinct from those induced by neurotrophins. International Journal of Developmental Neuroscience, 2002, 20, 55-62.	1.6	8
20	Real-time fluorescence measurement of spontaneous activity in a high-density hippocampal network cultivated on a plasmonic dish. Journal of Chemical Physics, 2020, 152, 014706.	3.0	6
21	Relationship Between Evoked and Spontaneous Activity in Cultured Neuronal Circuits. IEEJ Transactions on Electronics, Information and Systems, 2009, 129, 1815-1821.	0.2	6
22	Bisphenol A and rotenone induce S-nitrosylation of protein disulfide isomerase (PDI) and inhibit neurite outgrowth of primary cultured cells of the rat hippocampus and PC12 cells. Journal of Toxicological Sciences, 2020, 45, 783-794.	1.5	5
23	Synaptic potentiation induced by a protein factor in cultured cerebral neurons. Cellular and Molecular Neurobiology, 1999, 19, 575-585.	3.3	4
24	Identification of multiple-tasks-induced-EEG by heuristic BCI with learning type fuzzy-template-matching method. , 2017, , .		4
25	Long-term real-time imaging of a voltage sensitive dye in cultured hippocampal neurons using the silver plasmonic dish. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 384, 111949.	3.9	4
26	The Heterogenous Distribution of the Functional Synaptic Connections in a Rat Hippocampal Dissociated Neurons. IEEJ Transactions on Electronics, Information and Systems, 2007, 127, 1611-1618.	0.2	4
27	The effects of the current stimulation on electrical activity in dissociated neurons. , 2009, , .		3
28	Acquisition of logicity in living neuronal networks and its operation to fuzzy bio-robot system. , 2010, , .		3
29	The Glucose Concentrationâ€Dependency of Spontaneous Activity in a Cultured Neuronal Network. Electronics and Communications in Japan, 2014, 97, 35-41.	0.5	3
30	Two-Photon-Excited Emission of Quantum Dots with a Plasmonic Chip. Journal of Physical Chemistry C, 2020, 124, 16076-16082.	3.1	3
31	Living Neuronal Network Interacting to Outer World. Transactions of the Society of Instrument and Control Engineers, 2006, 42, 351-358.	0.2	3
32	Vitroid - a robot with link between living neuronal network in vitro and robot body. , 2008, , .		2
33	Fuzzy bio-interface: Indicating logicity from living neuronal network and learning control of bio-robot. , 2011, , .		2
34	Prototype of an Ankle Neurorehabilitation System with Heuristic BCI Using Simplified Fuzzy Reasoning. Applied Sciences (Switzerland), 2019, 9, 2429.	2.5	2
35	Elucidation of EEG Characteristics of Fuzzy Reasoning-Based Heuristic BCI and Its Application to Patient With Brain Infarction. Frontiers in Neurobotics, 2020, 14, 607706.	2.8	2
36	Operation of Network Dynamics in Cultured Hippocampal Neurons on a Multi-electrode Array. , 2006, , .		1

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37	Interaction between living neuronal network and outer world by programmable multisite stimulation system. , 2007, , .		1
38	Modification of activity pattern induced by synaptic enhancements in a semi-artificial network of living neurons. , 2011, , .		1
39	Electrode array-induced activity in cultured hippocampal neurons. , 2005, , .		0
40	Fundamental short-term memory of semi-artificial neuronal network. , 2013, 2013, 811-4.		1
41	Neurorobot Vitroid as a model of brain-body interaction. , 2013, , .		1
42	Description of activity of living neuronal network by fuzzy bio-indicator. , 2014, , .		1
43	Laser-induced perturbation into molecular dynamics localized in neuronal cell. , 2015, , .		1
44	Design for Information Processing in Living Neuronal Networks. Advances in Mechatronics and Mechanical Engineering, 2013, , 25-40.	1.0	1
45	Trapping of Neural Cell Adhesion Molecules in Neurons with Resonant Optical Tweezers. IEEJ Transactions on Electronics, Information and Systems, 2014, 134, 1071-1077.	0.2	1
46	Molecular dynamics in an optical trap of glutamate receptors labeled with quantum-dots on living neurons. Proceedings of SPIE, 2017, , .	0.8	1
47	Network dynamics of cultured hippocampal neurons in a multi-electrode array. , 2005, , .		0
48	Interaction and intelligence in living neuronal networks interfaced with moving robot. , 2005, 6036, 197.		0
49	1P210 Vesicle dynamics of hippocampal synapses in optical trapping(Neural network and brain) Tj ETQq1 1 0.784314 rgBT /Overlock 0.1		0
50	1P204 Involvement of NMDA-Rs in developmental change of spontaneous action potential pattern in a rat hippocampal dissociated neurons(Chemoreception, neuron and sensory system, neural network,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf		0
51	3P-227 The Autonomic Regulation of Spontaneous Activity in Living Neuronal Network(The 46th Annual) Tj ETQq1 1 0.784314 rgBT /Overlock 0.1		0
52	ANN generation according to a connection map of cultured network of living neurons on a dish. , 2011, , .		0
53	Paradigms representing the relationship between the inner of a brain and the outer world. IEEJ Transactions on Electrical and Electronic Engineering, 2011, 6, 51-57.	1.4	0
54	Discussion about â€œsynthetic intelligenceâ€•in dissociated culture system. Electronics and Communications in Japan, 2011, 94, 41-56.	0.5	0

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55	Functional connections between avian and mammalian neurons. , 2012, , .		0
56	Validation of long-term changes of evoked response with self-organization map. , 2014, , .		0
57	Raman study of analysis for the states of maturation of neural cell. , 2014, , .		0
58	The effects of transient abolishment of electrical activity on dynamics in a dissociated neuronal network. , 2014, , .		0
59	Relationship between inter-stimulus-intervals and intervals of autonomous activities in a neuronal network. , 2015, 2015, 1536-9.		0
60	Does Representation of Outer Objects in Living Neuronal Network Synthesize "the concept"? , 2016, , .		0
61	Analysis of Structure Characteristic in Rat Cultured Neuronal Network Using Fuzzy Operator. Journal of Japan Society for Fuzzy Theory and Intelligent Informatics, 2016, 28, 675-684.	0.0	0
62	Analysis of transition and reproducibility of spontaneous electrical activity pattern in a living neuronal network. , 2017, , .		0
63	Relationship Between Autonomous and Evoked Activities in a Living Neuronal Network of a Neurorobot, "Vitaenoid".. , 2018, , .		0
64	Single Particle Tracking Analysis of Optical Trapping Dynamics of AMPA-type Glutamate Receptors. IEEJ Transactions on Electronics, Information and Systems, 2021, 141, 668-675.	0.2	0
65	Interaction of Self-organized Living Neuronal Circuit and its Environment: Analysis from Hierarchical View. Journal of the Robotics Society of Japan, 2007, 25, 214-214.	0.1	0
66	Discussions About "Synthetic Intelligence" in Dissociated Culture System. IEEJ Transactions on Electronics, Information and Systems, 2009, 129, 32-45.	0.2	0
67	Relationship between Autonomous Activity in Cultured Neuronal Networks and Glucose Concentration of Culture Condition. IEEJ Transactions on Electronics, Information and Systems, 2016, 136, 1335-1342.	0.2	0