

Kotaro Oka

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,387
citations

279798

23
h-index

223800

46
g-index

85
all docs

85
docs citations

85
times ranked

2839
citing authors

#	ARTICLE	IF	CITATIONS
1	A web-based interactive developmental table for the ascidian <i>Ciona intestinalis</i> , including 3D real-image embryo reconstructions: I. From fertilized egg to hatching larva. <i>Developmental Dynamics</i> , 2007, 236, 1790-1805.	1.8	234
2	Single Molecular Multianalyte (Ca ²⁺ , Mg ²⁺) Fluorescent Probe and Applications to Bioimaging. <i>Journal of the American Chemical Society</i> , 2005, 127, 10798-10799.	13.7	228
3	Design and Synthesis of Highly Sensitive and Selective Fluorescein-Derived Magnesium Fluorescent Probes and Application to Intracellular 3D Mg ²⁺ Imaging. <i>Journal of the American Chemical Society</i> , 2004, 126, 16353-16360.	13.7	155
4	Design and Synthesis of Mg ²⁺ -Selective Fluoroionophores Based on a Coumarin Derivative and Application for Mg ²⁺ Measurement in a Living Cell. <i>Analytical Chemistry</i> , 2002, 74, 1423-1428.	6.5	131
5	A Transient Rise in Free Mg ²⁺ Ions Released from ATP-Mg Hydrolysis Contributes to Mitotic Chromosome Condensation. <i>Current Biology</i> , 2018, 28, 444-451.e6.	3.9	116
6	Mitochondrial Mg ²⁺ homeostasis decides cellular energy metabolism and vulnerability to stress. <i>Scientific Reports</i> , 2016, 6, 30027.	3.3	107
7	Mitochondria are intracellular magnesium stores: investigation by simultaneous fluorescent imagings in PC12 cells. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2005, 1744, 19-28.	4.1	103
8	Simultaneous Live Cell Imaging Using Dual FRET Sensors with a Single Excitation Light. <i>PLoS ONE</i> , 2009, 4, e6036.	2.5	103
9	Detection of Temperature Difference in Neuronal Cells. <i>Scientific Reports</i> , 2016, 6, 22071.	3.3	93
10	Magnesium Is a Key Player in Neuronal Maturation and Neuropathology. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3439.	4.1	90
11	A near-infrared fluorescent calcium probe: a new tool for intracellular multicolour Ca ²⁺ imaging. <i>Chemical Communications</i> , 2011, 47, 10407.	4.1	81
12	Design and Synthesis of a FAsH-Type Mg ²⁺ Fluorescent Probe for Specific Protein Labeling. <i>Journal of the American Chemical Society</i> , 2014, 136, 2374-2381.	13.7	71
13	Newly Developed Mg ²⁺ -Selective Fluorescent Probe Enables Visualization of Mg ²⁺ Dynamics in Mitochondria. <i>PLoS ONE</i> , 2011, 6, e23684.	2.5	48
14	Three-dimensional anatomy of the <i>Ciona intestinalis</i> tailbud embryo at single-cell resolution. <i>Developmental Biology</i> , 2012, 372, 274-284.	2.0	47
15	Serotonin induces the increase in intracellular Ca ²⁺ that enhances neurite outgrowth in PC12 cells via activation of 5-HT ₃ receptors and voltage-gated calcium channels. <i>Journal of Neuroscience Research</i> , 2006, 84, 316-325.	2.9	40
16	A method for selective ablation of neurons in <i>C. elegans</i> using the phototoxic fluorescent protein, KillerRed. <i>Neuroscience Letters</i> , 2013, 548, 261-264.	2.1	35
17	Dendritic Design Implements Algorithm for Synaptic Extraction of Sensory Information. <i>Journal of Neuroscience</i> , 2008, 28, 4592-4603.	3.6	32
18	Intracellular magnesium level determines cell viability in the MPP ⁺ model of Parkinson's disease. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 3182-3191.	4.1	30

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19	Near-Infrared Fluorescent Probes for Imaging of Intracellular Mg ²⁺ and Application to Multi-Color Imaging of Mg ²⁺ , ATP, and Mitochondrial Membrane Potential. <i>Analytical Chemistry</i> , 2020, 92, 966-974.	6.5	29
20	Blue Fluorescent cGMP Sensor for Multiparameter Fluorescence Imaging. <i>PLoS ONE</i> , 2010, 5, e9164.	2.5	28
21	GABA-Induced Intracellular Mg ²⁺ Mobilization Integrates and Coordinates Cellular Information Processing for the Maturation of Neural Networks. <i>Current Biology</i> , 2018, 28, 3984-3991.e5.	3.9	27
22	Glutamate-induced calcium increase mediates magnesium release from mitochondria in rat hippocampal neurons. <i>Journal of Neuroscience Research</i> , 2010, 88, 3125-3132.	2.9	25
23	Dendritic calcium accumulation regulates wind sensitivity via short-term depression at cercal sensory-to-giant interneuron synapses in the cricket. <i>Journal of Neurobiology</i> , 2001, 46, 301-313.	3.6	24
24	Na ⁺ /Mg ²⁺ transporter acts as a Mg ²⁺ buffering mechanism in PC12 cells. <i>Biochemical and Biophysical Research Communications</i> , 2003, 303, 332-336.	2.1	24
25	Ca ²⁺ influx through P2X receptors induces actin cytoskeleton reorganization by the formation of cofilin rods in neurites. <i>Molecular and Cellular Neurosciences</i> , 2008, 37, 261-270.	2.2	24
26	Compartmentalized cGMP Responses of Olfactory Sensory Neurons in <i>Caenorhabditis elegans</i> . <i>Journal of Neuroscience</i> , 2017, 37, 3753-3763.	3.6	24
27	NO/cGMP/PKG signaling pathway induces magnesium release mediated by mitoK _{ATP} channel opening in rat hippocampal neurons. <i>FEBS Letters</i> , 2013, 587, 2643-2648.	2.8	23
28	Fictive locomotion induced by octopamine in the earthworm. <i>Journal of Experimental Biology</i> , 2002, 205, 265-271.	1.7	23
29	Characterization of calcium transients during early embryogenesis in ascidians <i>Ciona robusta</i> (<i>Ciona</i>) Tj ETQq1 1 0.784314 rgBT /Overlo	2.0	21
30	Change detection and difference detection of tone duration discrimination. <i>NeuroReport</i> , 2006, 17, 395-399.	1.2	17
31	Network structure of projections extending from peripheral neurons in the tunic of ascidian larva. <i>Developmental Dynamics</i> , 2010, 239, 2278-2287.	1.8	17
32	Comprehensive morphological analysis of individual peripheral neuron dendritic arbors in ascidian larvae using the photoconvertible protein kaede. <i>Developmental Dynamics</i> , 2014, 243, 1362-1373.	1.8	17
33	14-3-3 μ a directs the pulsatile transport of basal factors toward the apical domain for lumen growth in tubulogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8873-E8881.	7.1	17
34	Electrical stimulation of cultured neurons using a simply patterned indium-tin-oxide (ITO) glass electrode. <i>Journal of Neuroscience Methods</i> , 2015, 253, 272-278.	2.5	16
35	Altered expression of Mg ²⁺ transport proteins during Parkinson's disease-like dopaminergic cell degeneration in PC12 cells. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2016, 1863, 1979-1984.	4.1	16
36	Fictive locomotion induced by octopamine in the earthworm. <i>Journal of Experimental Biology</i> , 2002, 205, 265-71.	1.7	16

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37	Direction-Specific Adaptation in Neuronal and Behavioral Responses of an Insect Mechanosensory System. <i>Journal of Neuroscience</i> , 2015, 35, 11644-11655.	3.6	15
38	Two-Round Ca ²⁺ transient in papillae by mechanical stimulation induces metamorphosis in the ascidian <i>Ciona intestinalis</i> type A. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021, 288, 20203207.	2.6	14
39	Bioengineering. Measurement of Surface Topography of Endothelial Cell and Wall Shear Stress Distribution on the Cell. <i>JSM International Journal Series C-Mechanical Systems Machine Elements and Manufacturing</i> , 2001, 44, 972-981.	0.3	13
40	Crosstalk between Second Messengers Predicts the Motility of the Growth Cone. <i>Scientific Reports</i> , 2013, 3, 3118.	3.3	13
41	Modulation of motor patterns by sensory feedback during earthworm locomotion. <i>Neuroscience Research</i> , 2004, 48, 457-462.	1.9	12
42	Neural depolarization triggers Mg ²⁺ influx in rat hippocampal neurons. <i>Neuroscience</i> , 2015, 310, 731-741.	2.3	11
43	Inhibition of Mg ²⁺ Extrusion Attenuates Glutamate Excitotoxicity in Cultured Rat Hippocampal Neurons. <i>Nutrients</i> , 2020, 12, 2768.	4.1	11
44	Peripheral-neuron-like properties of differentiated human dental pulp stem cells (hDPSCs). <i>PLoS ONE</i> , 2021, 16, e0251356.	2.5	11
45	Chromatophore Activity during Natural Pattern Expression by the Squid <i>Sepioteuthis lessoniana</i> : Contributions of Miniature Oscillation. <i>PLoS ONE</i> , 2011, 6, e18244.	2.5	11
46	Rapid differentiation of human dental pulp stem cells to neuron-like cells by high K ⁺ stimulation. <i>Biophysics and Physicobiology</i> , 2020, 17, 132-139.	1.0	11
47	Intracellular activation of acetyl-CoA by an artificial reaction promoter and its fluorescent detection. <i>Chemical Communications</i> , 2013, 49, 2876.	4.1	9
48	Neural properties of fundamental function encoding of sound selectivity in the female avian auditory cortex. <i>European Journal of Neuroscience</i> , 2020, 51, 1770-1783.	2.6	9
49	Development of UV-Excitable Red and Near-Infrared Fluorescent Labels and Their Application for Simultaneous Multicolor Bioimaging by Single-Wavelength Excitation. <i>Journal of Fluorescence</i> , 2013, 23, 1007-1018.	2.5	8
50	Effect of interactions among individuals on the chemotaxis behaviours of <i>Caenorhabditis elegans</i> . <i>Journal of Experimental Biology</i> , 2018, 221, .	1.7	8
51	Mechanical stimulus-evoked signal transduction between keratinocytes and sensory neurons via extracellular ATP. <i>Biochemical and Biophysical Research Communications</i> , 2021, 582, 131-136.	2.1	8
52	Odorant-induced membrane potential depolarization of AIY interneuron in <i>Caenorhabditis elegans</i> . <i>Neuroscience Letters</i> , 2013, 541, 199-203.	2.1	7
53	A single motor neuron determines the rhythm of early motor behavior in <i>Ciona</i> . <i>Science Advances</i> , 2021, 7, eabl6053.	10.3	7
54	The Input-Output Relationship of AIY Interneurons in <i>Caenorhabditis elegans</i> in Noisy Environment. <i>IScience</i> , 2019, 19, 191-203.	4.1	6

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55	Improvement in the Viability of Cryopreserved Cells by Microencapsulation. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2001, 44, 937-945.	0.3	5
56	FMRamide elicits chromatophore expansion and retraction depending on its type and development in the squid, <i>Sepioteuthis lessoniana</i> . Invertebrate Neuroscience, 2009, 9, 185-193.	1.8	5
57	Cellular thermogenesis compensates environmental temperature fluctuations for maintaining intracellular temperature. Biochemical and Biophysical Research Communications, 2020, 533, 70-76.	2.1	5
58	Dorsolateral prefrontal cortex sensing analgesia. Biophysics and Physicobiology, 2022, , .	1.0	5
59	Neural substrate of sound duration discrimination during an auditory sequence in the guinea pig primary auditory cortex. Hearing Research, 2010, 259, 107-116.	2.0	4
60	Multiple tracking and machine learning reveal dopamine modulation for area-restricted foraging behaviors via velocity change in <i>Caenorhabditis elegans</i> . Neuroscience Letters, 2019, 706, 68-74.	2.1	4
61	Food deprivation changes chemotaxis behavior in <i>Caenorhabditis elegans</i> . Biophysics and Physicobiology, 2019, 16, 167-172.	1.0	4
62	Stochastic thermodynamic limit on <i>E. coli</i> adaptation by information geometric approach. Biochemical and Biophysical Research Communications, 2019, 508, 690-694.	2.1	4
63	Different strategies for tissue scaling in dwarf tailbud embryos revealed by single-cell analysis. Developmental Biology, 2020, 460, 215-223.	2.0	4
64	Small Molecule-based Alkaline-earth Metal Ion Fluorescent Probes for Imaging Intracellular and Intercellular Multiple Signals. Chemistry Letters, 2021, 50, 870-887.	1.3	4
65	Bioengineering. Secondary Flow Augmentation during Intermittent Oscillatory Flow in Model Human Central Airways.. JSME International Journal Series C-Mechanical Systems Machine Elements and Manufacturing, 2001, 44, 1041-1050.	0.3	3
66	Investigation of Intracellular Magnesium Mobilization Pathways I Pc12 Cells B Simultaneous Mg-Ca Fluorescent Imaging. Journal of the American College of Nutrition, 2004, 23, 742S-744S.	1.8	3
67	Identification of oscillatory firing neurons associated with locomotion in the earthworm through synapse imaging. Neuroscience, 2014, 268, 149-158.	2.3	3
68	Serotonin modulates behavior-related neural activity of RID interneuron in <i>Caenorhabditis elegans</i> . PLoS ONE, 2019, 14, e0226044.	2.5	3
69	Optical Dissection of Synaptic Plasticity for Early Adaptation in <i>Caenorhabditis elegans</i> . Neuroscience, 2020, 428, 112-121.	2.3	3
70	Phylogenetic comparison of egg transparency in ascidians by hyperspectral imaging. Scientific Reports, 2020, 10, 20829.	3.3	3
71	Development of Near-Infrared Fluorescent Mg ²⁺ Probe and Application to Multicolor Imaging of Intracellular Signals. Methods in Molecular Biology, 2021, 2274, 217-235.	0.9	2
72	Qualitative and quantitative estimation of comprehensive synaptic connectivity in short- and long-term cultured rat hippocampal neurons with new analytical methods inspired by Scatchard and Hill plots. Biochemical and Biophysical Research Communications, 2016, 471, 486-491.	2.1	1

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73	High responsiveness of auditory neurons to specific combination of acoustic features in female songbirds. <i>European Journal of Neuroscience</i> , 2021, 53, 1412-1427.	2.6	1
74	Developmental Table and Three-Dimensional Embryological Image Resource of the Ascidian <i>Ascidella aspersa</i> . <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 789046.	3.7	1
75	Spatial and Temporal Variation of Secondary Flow During Oscillatory Flow in Model Airways. <i>The Proceedings of the Fluids Engineering Conference</i> , 2000, 2000, 160.	0.0	0
76	Development of a Coaxial-Type Microelectrode for <i>in vivo</i> Nitric Oxide Measurement. <i>Seibutsu Butsuri</i> , 2001, 41, 32-34.	0.1	0
77	Effect of distribution of tumor vasculature and pO ₂ in radiation therapy. <i>The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME</i> , 2001, 2001.13, 270-271.	0.0	0
78	Simultaneous Visualization of Spatiotemporal Dynamics of Intracellular Signals using Dual FRET Imaging. <i>Seibutsu Butsuri</i> , 2010, 50, 028-029.	0.1	0
79	Optical Imaging Techniques for Investigating the Function of Earthworm Nervous System. , 2013, , 89-99.		0
80	Food Deprivation Changes Chemotaxis Behavior of <i>Caenorhabditis elegans</i> . <i>Seibutsu Butsuri</i> , 2020, 60, 346-348.	0.1	0