

Tomomi Nemoto

List of Publications by Year in descending order

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97
papers

4,658
citations

147801

31
h-index

106344

65
g-index

104
all docs

104
docs citations

104
times ranked

5869
citing authors

#	ARTICLE	IF	CITATIONS
1	Focusing new light on brain functions: multiphoton microscopy for deep and super-resolution imaging. <i>Neuroscience Research</i> , 2022, 179, 24-30.	1.9	8
2	Low-invasive 5D visualization of mitotic progression by two-photon excitation spinning-disk confocal microscopy. <i>Scientific Reports</i> , 2022, 12, 809.	3.3	6
3	Spatial and Temporal Resolution Improvements on 2-Photon Microscopy. <i>Seibutsu Butsuri</i> , 2022, 62, 131-133.	0.1	1
4	Efficient visible/NIR light-driven uncaging of hydroxylated thiazole orange-based caged compounds in aqueous media. <i>Chemical Science</i> , 2022, 13, 7462-7467.	7.4	2
5	Single-scan volumetric imaging throughout thick tissue specimens by one-touch installable light-needle creating device. <i>Scientific Reports</i> , 2022, 12, .	3.3	4
6	A Cascade of 2.5D CNN and Bidirectional CLSTM Network for Mitotic Cell Detection in 4D Microscopy Image. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , 2021, 18, 396-404.	3.0	9
7	Optical clearing of living brains with MAGICAL to extend in vivo imaging. <i>IScience</i> , 2021, 24, 101888.	4.1	9
8	Accurate and fast mitotic detection using an anchor-free method based on full-scale connection with recurrent deep layer aggregation in 4D microscopy images. <i>BMC Bioinformatics</i> , 2021, 22, 91.	2.6	1
9	3DeeCellTracker, a deep learning-based pipeline for segmenting and tracking cells in 3D time lapse images. <i>ELife</i> , 2021, 10, .	6.0	53
10	Protocol for constructing an extensive cranial window utilizing a PEO-CYTOP nanosheet for in vivo wide-field imaging of the mouse brain. <i>STAR Protocols</i> , 2021, 2, 100542.	1.2	7
11	FBP17-mediated finger-like membrane protrusions in cell competition between normal and RasV12-transformed cells. <i>IScience</i> , 2021, 24, 102994.	4.1	6
12	Adaptive Optical Two-Photon Microscopy for Surface-Profiled Living Biological Specimens. <i>ACS Omega</i> , 2021, 6, 438-447.	3.5	12
13	Autophagy Contributes to the Quality Control of Leaf Mitochondria. <i>Plant and Cell Physiology</i> , 2021, 62, 229-247.	3.1	37
14	An end-to-end CNN and LSTM network with 3D anchors for mitotic cell detection in 4D microscopic images and its parallel implementation on multiple GPUs. <i>Neural Computing and Applications</i> , 2020, 32, 5669-5679.	5.6	2
15	Nanosheet wrapping-assisted coverslip-free imaging for looking deeper into a tissue at high resolution. <i>PLoS ONE</i> , 2020, 15, e0227650.	2.5	5
16	PEO-CYTOP Fluoropolymer Nanosheets as a Novel Open-Skull Window for Imaging of the Living Mouse Brain. <i>IScience</i> , 2020, 23, 101579.	4.1	13
17	In vivo two-photon microscopic observation and ablation in deeper brain regions realized by modifications of excitation beam diameter and immersion liquid. <i>PLoS ONE</i> , 2020, 15, e0237230.	2.5	17
18	High-peak-power 918-nm laser light source based two-photon spinning-disk microscopy for green fluorophores. <i>Biochemical and Biophysical Research Communications</i> , 2020, 529, 238-242.	2.1	9

#	ARTICLE	IF	CITATIONS
19	Absorption, Fluorescence, and Two-Photon Excitation Ability of 5-Phenylisolidolo[2,1- <i>a</i>]quinolines. ACS Omega, 2020, 5, 2473-2479.	3.5	7
20	Title is missing!. , 2020, 15, e0237230.		0
21	Title is missing!. , 2020, 15, e0237230.		0
22	In Vivo Imaging of All Cortical Layers and Hippocampal CA1 Pyramidal Cells by Two-Photon Excitation Microscopy. Progress in Optical Science and Photonics, 2019, , 113-122.	0.5	1
23	587 nm nanosecond optical pulse generation by synchronously-driven gain-switched laser diodes with optical injection locking. Applied Physics Express, 2019, 12, 082002.	2.4	3
24	Rational Engineering of XCaMPs, a Multicolor GECI Suite for In Vivo Imaging of Complex Brain Circuit Dynamics. Cell, 2019, 177, 1346-1360.e24.	28.9	199
25	A Cascade of CNN and LSTM Network with 3D Anchors for Mitotic Cell Detection in 4D Microscopic Image. , 2019, , .		7
26	Differential contributions of nonmuscle myosin IIA and IIB to cytokinesis in human immortalized fibroblasts. Experimental Cell Research, 2019, 376, 67-76.	2.6	19
27	Real-Time Polarization-Resolved Imaging of Living Tissues Based on Two-Photon Excitation Spinning-Disk Confocal Microscopy. Frontiers in Physics, 2019, 7, .	2.1	11
28	A Novel Katanin-Tethering Machinery Accelerates Cytokinesis. Current Biology, 2019, 29, 4060-4070.e3.	3.9	42
29	Two-photon STED nanoscopy realizing 100-nm spatial resolution utilizing high-peak-power sub-nanosecond 655-nm pulses. Biomedical Optics Express, 2019, 10, 3104.	2.9	10
30	Super-resolution structural analysis of dendritic spines using three-dimensional structured illumination microscopy in cleared mouse brain slices. European Journal of Neuroscience, 2018, 47, 1033-1042.	2.6	10
31	Development of 3D imaging technique of reconstructed human epidermis with immortalized human epidermal cell line. Experimental Dermatology, 2018, 27, 563-570.	2.9	5
32	A 2.5D Cascaded Convolutional Neural Network with Temporal Information for Automatic Mitotic Cell Detection in 4D Microscopic Images. , 2018, , .		3
33	Advanced easySTED microscopy based on two-photon excitation by electrical modulations of light pulse wavefronts. Biomedical Optics Express, 2018, 9, 2671.	2.9	19
34	Heterogeneous distribution of doublecortin-expressing cells surrounding the rostral migratory stream in the juvenile mouse. Journal of Comparative Neurology, 2018, 526, 2631-2646.	1.6	4
35	Improvement of two-photon microscopic imaging in deep regions of living mouse brains by utilizing a light source based on an electrically controllable gain-switched laser diode. , 2018, , .		0
36	Generation of high-peak-power sub-nanosecond 650-nm-band optical pulses based on semiconductor-laser-controlling technologies. Applied Physics Express, 2017, 10, 102701.	2.4	7

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37	Dynamics and function of <sc>ERM</sc> proteins during cytokinesis in human cells. FEBS Letters, 2017, 591, 3296-3309.	2.8	16
38	Fluoropolymer Nanosheet as a Wrapping Mount for High-Quality Tissue Imaging. Advanced Materials, 2017, 29, 1703139.	21.0	19
39	Transmissive liquid-crystal device for correcting primary coma aberration and astigmatism in biospecimen in two-photon excitation laser scanning microscopy. Journal of Biomedical Optics, 2016, 21, 121503.	2.6	14
40	Opposing roles for SNAP23 in secretion in exocrine and endocrine pancreatic cells. Journal of Cell Biology, 2016, 215, 121-138.	5.2	21
41	Transmissive liquid-crystal device correcting primary coma aberration and astigmatism in laser scanning microscopy. , 2016, , .		2
42	Three-Dimensional Analysis of Cell Division Orientation in Epidermal Basal Layer Using Intravital Two-Photon Microscopy. PLoS ONE, 2016, 11, e0163199.	2.5	21
43	Multi-point Scanning Two-photon Excitation Microscopy by Utilizing a High-peak-power 1042-nm Laser. Analytical Sciences, 2015, 31, 307-313.	1.6	31
44	A Rapid Optical Clearing Protocol Using 2,2'-Thiodiethanol for Microscopic Observation of Fixed Mouse Brain. PLoS ONE, 2015, 10, e0116280.	2.5	134
45	Transmissive liquid crystal device correcting the spherical aberrations in laser scanning microscopy. , 2015, , .		3
46	STED microscopy—super-resolution bio-imaging utilizing a stimulated emission depletion. Microscopy (Oxford, England), 2015, 64, 227-236.	1.5	20
47	Correcting spherical aberrations in a biospecimen using a transmissive liquid crystal device in two-photon excitation laser scanning microscopy. Journal of Biomedical Optics, 2015, 20, 101204.	2.6	21
48	Two-photon excitation fluorescence microscopy and its application in functional connectomics. Microscopy (Oxford, England), 2015, 64, 9-15.	1.5	15
49	In vivo two-photon imaging of mouse hippocampal neurons in dentate gyrus using a light source based on a high-peak power gain-switched laser diode. Biomedical Optics Express, 2015, 6, 891.	2.9	80
50	Ultrasensitive Imaging of Ca ²⁺ Dynamics in Pancreatic Acinar Cells of Yellow Cameleon-Nano Transgenic Mice. International Journal of Molecular Sciences, 2014, 15, 19971-19986.	4.1	9
51	Phospholipase C-related catalytically inactive protein (PRIP) controls KIF5B-mediated insulin secretion. Biology Open, 2014, 3, 463-474.	1.2	19
52	7-ps optical pulse generation from a 1064-nm gain-switched laser diode and its application for two-photon microscopy. Optics Express, 2014, 22, 5746.	3.4	45
53	Two-photon excitation STED microscopy by utilizing transmissive liquid crystal devices. Optics Express, 2014, 22, 28215.	3.4	17
54	Development of novel two-photon microscopy for living brain and neuron. Microscopy (Oxford,) Tj ETQq0 0 0 rgBT/Qverlock_10 Tf 50 6.	1.5	3

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55	Improvement of lateral resolution and extension of depth of field in two-photon microscopy by a higher-order radially polarized beam. <i>Microscopy (Oxford, England)</i> , 2014, 63, 23-32.	1.5	28
56	Interactive visual exploration of overlapping similar structures for three-dimensional microscope images. <i>BMC Bioinformatics</i> , 2014, 15, 415.	2.6	1
57	Visualizing in vivo brain neural structures using volume rendered feature spaces. <i>Computers in Biology and Medicine</i> , 2014, 53, 85-93.	7.0	8
58	<i>In Vivo</i> Imaging of Neocortical and Hippocampal CA1 Neurons by Two-photon Microscopy. <i>Seibutsu Butsuri</i> , 2014, 54, 035-038.	0.1	0
59	Visualizing hippocampal neurons with in vivo two-photon microscopy using a 1030 nm picosecond pulse laser. <i>Scientific Reports</i> , 2013, 3, 1014.	3.3	117
60	Asymmetric distribution of dynamic calcium signals in the node of mouse embryo during left-right axis formation. <i>Developmental Biology</i> , 2013, 376, 23-30.	2.0	62
61	Improvement in Tissue Penetration Depth and Spatial Resolution of Multi-Photon Laser Excitation Microscopy. <i>The Review of Laser Engineering</i> , 2013, 41, 107.	0.0	0
62	Preface to Special Issue on Cutting Edge of Photo-Manipulation and Imaging for Elucidation of Emergence of Biological Functions. <i>The Review of Laser Engineering</i> , 2013, 41, 84.	0.0	0
63	Observation of PDLs by SHG laser scanning microscopy using a liquid crystal vector beam generator. , 2012, , .		2
64	A Novel Function of Noc2 in Agonist-Induced Intracellular Ca ²⁺ Increase during Zymogen-Granule Exocytosis in Pancreatic Acinar Cells. <i>PLoS ONE</i> , 2012, 7, e37048.	2.5	11
65	Simple adaptive optic device for confocal laser scanning microscopy using liquid crystals. , 2012, , .		1
66	Lateral resolution enhancement of laser scanning microscopy by a higher-order radially polarized mode beam. <i>Optics Express</i> , 2011, 19, 15947.	3.4	105
67	GABA Regulates the Multidirectional Tangential Migration of GABAergic Interneurons in Living Neonatal Mice. <i>PLoS ONE</i> , 2011, 6, e27048.	2.5	69
68	Sensory Input Regulates Spatial and Subtype-Specific Patterns of Neuronal Turnover in the Adult Olfactory Bulb. <i>Journal of Neuroscience</i> , 2011, 31, 11587-11596.	3.6	68
69	Rap1 controls lymphocyte adhesion cascade and interstitial migration within lymph nodes in RAPL-dependent and -independent manners. <i>Blood</i> , 2010, 115, 804-814.	1.4	49
70	Novel Visualization Technique of Function and Morphology of Cell Membrane Including Exocytosis by Using Laser Beam. <i>Membrane</i> , 2010, 35, 57-62.	0.0	0
71	Differential Activity-Dependent Secretion of Brain-Derived Neurotrophic Factor from Axon and Dendrite. <i>Journal of Neuroscience</i> , 2009, 29, 14185-14198.	3.6	226
72	Neuronal Circuit Remodeling in the Contralateral Cortical Hemisphere during Functional Recovery from Cerebral Infarction. <i>Journal of Neuroscience</i> , 2009, 29, 10081-10086.	3.6	144

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73	Pancreas-specific aquaporin 12 null mice showed increased susceptibility to caerulein-induced acute pancreatitis. <i>American Journal of Physiology - Cell Physiology</i> , 2009, 297, C1368-C1378.	4.6	53
74	Maternal separation decreases the stability of mushroom spines in adult mice somatosensory cortex. <i>Brain Research</i> , 2009, 1294, 45-51.	2.2	34
75	An ultramarine fluorescent protein with increased photostability and pH insensitivity. <i>Nature Methods</i> , 2009, 6, 351-353.	19.0	126
76	In vivo imaging of sensory input-dependent neurogenesis in the adult olfactory bulb. <i>Neuroscience Research</i> , 2009, 65, S54.	1.9	0
77	Visualization and Analysis of Cellular and Biomolecular Dynamics by using Ultra-Short Pulse Laser. <i>Nippon Laser Igakkaishi</i> , 2009, 30, 435-440.	0.0	0
78	Living cell functions and morphology revealed by two-photon microscopy in intact neural and secretory organs. <i>Molecules and Cells</i> , 2008, 26, 113-20.	2.6	22
79	Long term observation of fine structural plasticity of neurons and glia in damaged cerebral cortex of living mice. <i>Neuroscience Research</i> , 2007, 58, S12.	1.9	0
80	New Advances in Nanomedicine: Diagnosis and Preventive Medicine. <i>Medical Clinics of North America</i> , 2007, 91, 871-879.	2.5	5
81	Two cAMP-dependent pathways differentially regulate exocytosis of large dense-core and small vesicles in mouse β 2-cells. <i>Journal of Physiology</i> , 2007, 582, 1087-1098.	2.9	62
82	Vacuolar sequential exocytosis of large dense-core vesicles in adrenal medulla. <i>EMBO Journal</i> , 2006, 25, 673-682.	7.8	48
83	Rapid glucose sensing by protein kinase A for insulin exocytosis in mouse pancreatic islets. <i>Journal of Physiology</i> , 2006, 570, 271-282.	2.9	69
84	Two-photon excitation imaging of exocytosis and endocytosis and determination of their spatial organization. <i>Advanced Drug Delivery Reviews</i> , 2006, 58, 850-877.	13.7	44
85	A new quantitative (two-photon extracellular polar-tracer imaging-based quantification (TEPIQ)) analysis for diameters of exocytic vesicles and its application to mouse pancreatic islets. <i>Journal of Physiology</i> , 2005, 568, 891-903.	2.9	30
86	Sequential compound exocytosis of large dense-core vesicles in PC12 cells studied with TEPIQ (two-photon extracellular polar-tracer imaging-based quantification) analysis. <i>Journal of Physiology</i> , 2005, 568, 905-915.	2.9	43
87	Exocytosis and endocytosis of small vesicles in PC12 cells studied with TEPIQ (two-photon) Tj ETQq1 1 0.784314 rgBT /Overlock 10 T 5 917-929.	2.9	41
88	Rapid Ca ²⁺ -dependent increase in oxygen consumption by mitochondria in single mammalian central neurons. <i>Cell Calcium</i> , 2005, 37, 359-370.	2.4	46
89	Two-photon microscopic analysis of acetylcholine-induced mucus secretion in guinea pig nasal glands. <i>Cell Calcium</i> , 2005, 37, 349-357.	2.4	28
90	Stabilization of Exocytosis by Dynamic F-actin Coating of Zymogen Granules in Pancreatic Acini. <i>Journal of Biological Chemistry</i> , 2004, 279, 37544-37550.	3.4	125

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91	Two-Photon Excitation Imaging of Pancreatic Islets With Various Fluorescent Probes. <i>Diabetes</i> , 2002, 51, S25-S28.	0.6	44
92	Switch to Anaerobic Glucose Metabolism with NADH Accumulation in the \hat{I}^2 -Cell Model of Mitochondrial Diabetes. <i>Journal of Biological Chemistry</i> , 2002, 277, 41817-41826.	3.4	68
93	Fusion Pore Dynamics and Insulin Granule Exocytosis in the Pancreatic Islet. <i>Science</i> , 2002, 297, 1349-1352.	12.6	247
94	Dendritic spine geometry is critical for AMPA receptor expression in hippocampal CA1 pyramidal neurons. <i>Nature Neuroscience</i> , 2001, 4, 1086-1092.	14.8	1,413
95	Sequential-replenishment mechanism of exocytosis in pancreatic acini. <i>Nature Cell Biology</i> , 2001, 3, 253-258.	10.3	166
96	Sliding Motion of Magnetizable Beads Coated with Chara Motor Protein in a Magnetic Field. <i>Journal of the Physical Society of Japan</i> , 1998, 67, 345-350.	1.6	8
97	Characteristics in Sliding Motions of Small Organelles in a <i>Nitella</i> Internodal Cell. <i>Journal of the Physical Society of Japan</i> , 1995, 64, 4959-4963.	1.6	4