Kazuto Masamoto

List of Publications by Year
in descending order

69	2,577	279798 23	197818 49
papers	citations	h-index	g-index

69	69	69	3511
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Imaging of Tau Pathology in a Tauopathy Mouse Model and in Alzheimer Patients Compared to Normal Controls. Neuron, 2013, 79, 1094-1108.	8.1	673
2	Anesthesia and the Quantitative Evaluation of Neurovascular Coupling. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 1233-1247.	4.3	225
3	Relationship between Neural, Vascular, and BOLD Signals in Isoflurane-Anesthetized Rat Somatosensory Cortex. Cerebral Cortex, 2006, 17, 942-950.	2.9	187
4	Arterial versus Total Blood Volume Changes during Neural Activity-Induced Cerebral Blood Flow Change: Implication for BOLD fMRI. Journal of Cerebral Blood Flow and Metabolism, 2007, 27, 1235-1247.	4.3	172
5	Doseâ€dependent effect of isoflurane on neurovascular coupling in rat cerebral cortex. European Journal of Neuroscience, 2009, 30, 242-250.	2.6	144
6	Changes in Cerebral Arterial, Tissue and Venous Oxygenation with Evoked Neural Stimulation: Implications for Hemoglobin-Based Functional Neuroimaging. Journal of Cerebral Blood Flow and Metabolism, 2010, 30, 428-439.	4.3	78
7	Unveiling astrocytic control of cerebral blood flow with optogenetics. Scientific Reports, 2015, 5, 11455.	3.3	72
8	Frequency-dependent neural activity, CBF, and BOLD fMRI to somatosensory stimuli in isoflurane-anesthetized rats. NeuroImage, 2010, 52, 224-233.	4.2	68
9	Early and Progressive Impairment of Spinal Blood Flowâ€"Glucose Metabolism Coupling in Motor Neuron Degeneration of ALS Model Mice. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 456-467.	4.3	60
10	Oxygen Transport in Brain Tissue. Journal of Biomechanical Engineering, 2009, 131, 074002.	1.3	58
11	Imaging brain vasculature with BOLD microscopy: MR detection limits determined by in vivo twoâ€photon microscopy. Magnetic Resonance in Medicine, 2008, 59, 855-865.	3.0	55
12	Multimodal Silica-Shelled Quantum Dots: Direct Intracellular Delivery, Photosensitization, Toxic, and Microcirculation Effects. Bioconjugate Chemistry, 2008, 19, 1135-1142.	3.6	52
13	Trial-by-trial relationship between neural activity, oxygen consumption, and blood flow responses. NeuroImage, 2008, 40, 442-450.	4.2	48
14	Reproducibility and variance of a stimulation-induced hemodynamic response in barrel cortex of awake behaving mice. Brain Research, 2011, 1369, 103-111.	2.2	43
15	Successive depth variations in microvascular distribution of rat somatosensory cortex. Brain Research, 2004, 995, 66-75.	2.2	36
16	Biphasic Changes in Tissue Partial Pressure of Oxygen Closely Related to Localized Neural Activity in Guinea Pig Auditory Cortex. Journal of Cerebral Blood Flow and Metabolism, 2003, 23, 1075-1084.	4.3	35
17	Cerebral oxygen delivery and consumption during evoked neural activity. Frontiers in Neuroenergetics, 2010, 2, 11.	5.3	33
18	Long-Term Adaptation of Cerebral Hemodynamic Response to Somatosensory Stimulation during Chronic Hypoxia in Awake Mice. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 774-779.	4.3	30

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19	Dynamics of oxygen delivery and consumption during evoked neural stimulation using a compartment model and CBF and tissue PO2 measurements. NeuroImage, 2008, 42, 49-59.	4.2	27
20	Microvascular Sprouting, Extension, and Creation of New Capillary Connections with Adaptation of the Neighboring Astrocytes in Adult Mouse Cortex under Chronic Hypoxia. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 325-331.	4.3	27
21	Pial Arteries Respond Earlier than Penetrating Arterioles to Neural Activation in the Somatosensory Cortex in Awake Mice Exposed to Chronic Hypoxia: An Additional Mechanism to Proximal Integration Signaling?. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1761-1770.	4.3	25
22	3D Analysis of Intracortical Microvasculature During Chronic Hypoxia in Mouse Brains. Advances in Experimental Medicine and Biology, 2013, 765, 357-363.	1.6	25
23	Intracellular ATP levels in mouse cortical excitatory neurons varies with sleepâ€“wake states. Communications Biology, 2020, 3, 491.	4.4	24
24	Apparent diffusion time of oxygen from blood to tissue in rat cerebral cortex: implication for tissue oxygen dynamics during brain functions. Journal of Applied Physiology, 2007, 103, 1352-1358.	2.5	23
25	Measuring the Vascular Diameter of Brain Surface and Parenchymal Arteries in Awake Mouse. Advances in Experimental Medicine and Biology, 2013, 789, 419-425.	1.6	23
26	Dual responses of tissue partial pressure of oxygen after functional stimulation in rat somatosensory cortex. Brain Research, 2003, 979, 104-113.	2.2	22
27	Layer-Specific Dilation of Penetrating Arteries Induced by Stimulation of the Nucleus Basalis of Meynert in the Mouse Frontal Cortex. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 1440-1447.	4.3	22
28	Changes in Cortical Microvasculature during Misery Perfusion Measured by Two-Photon Laser Scanning Microscopy. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1363-1372.	4.3	22
29	Spatial Frequency-Based Analysis of Mean Red Blood Cell Speed in Single Microvessels: Investigation of Microvascular Perfusion in Rat Cerebral Cortex. PLoS ONE, 2011, 6, e24056.	2.5	22
30	Optical imaging and modulation of neurovascular responses. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 2057-2072.	4.3	17
31	Hemodynamic changes during neural deactivation in awake mice: A measurement by laser-Doppler flowmetry in crossed cerebellar diaschisis. Brain Research, 2013, 1537, 350-355.	2.2	16
32	Intracortical Microcirculatory Change Induced by Anesthesia in Rat Somatosensory Cortex. Advances in Experimental Medicine and Biology, 2010, 662, 57-61.	1.6	16
33	Hyperperfusion Counteracted by Transient Rapid Vasoconstriction Followed by Long-Lasting Oligemia Induced by Cortical Spreading Depression in Anesthetized Mice. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 689-698.	4.3	15
34	Long-term effects of cerebral hypoperfusion on neural density and function using misery perfusion animal model. Scientific Reports, 2016, 6, 25072.	3.3	15
35	Differential pial and penetrating arterial responses examined by optogenetic activation of astrocytes and neurons. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 2676-2689.	4.3	13
36	Microvascular permeability of skeletal muscle after eccentric contraction-induced muscle injury: in vivo imaging using two-photon laser scanning microscopy. Journal of Applied Physiology, 2018, 125, 369-380.	2.5	11

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37	Brain Tissue Oxygen Consumption And Supply Induced By Neural Activation:. Advances in Experimental Medicine and Biology, 2009, 645, 287-292.	1.6	11
38	Hypoxia-Induced Cerebral Angiogenesis in Mouse Cortex with Two-Photon Microscopy. Advances in Experimental Medicine and Biology, 2013, 789, 15-20.	1.6	11
39	Image-based vessel-by-vessel analysis for red blood cell and plasma dynamics with automatic segmentation. Microvascular Research, 2012, 84, 178-187.	2.5	10
40	Potassiumâ€induced cortical spreading depression bilaterally suppresses the electroencephalogram but only ipsilaterally affects red blood cell velocity in intraparenchymal capillaries. Journal of Neuroscience Research, 2013, 91, 578-584.	2.9	9
41	Cerebral hemodynamic response to acute hyperoxia in awake mice. Brain Research, 2014, 1557, 155-163.	2.2	9
42	Dynamic Flow Velocity Mapping from Fluorescent Dye Transit Times in the Brain Surface Microcirculation of Anesthetized Rats and Mice. Microcirculation, 2016, 23, 416-425.	1.8	9
43	Dynamic diameter response of intraparenchymal penetrating arteries during cortical spreading depression and elimination of vasoreactivity to hypercapnia in anesthetized mice. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 657-670.	4.3	9
44	Fluorescence Imaging of Blood Flow Velocity in the Rodent Brain. Current Topics in Medicinal Chemistry, 2016, 16, 2677-2684.	2.1	8
45	Phantom and mouse experiments of time-domain fluorescence tomography using total light approach. Biomedical Optics Express, 2013, 4, 635.	2.9	7
46	Vascular Gap Junctions Contribute to Forepaw Stimulation-Induced Vasodilation Differentially in the Pial and Penetrating Arteries in Isoflurane-Anesthetized Rats. Frontiers in Molecular Neuroscience, 2018, 11, 446.	2.9	7
47	Reproducibility of measuring cerebral blood flow by laser-Doppler flowmetry in mice. Frontiers in Bioscience - Elite, 2014, E6, 62-68.	1.8	5
48	Establishment and evaluation of a new highly metastatic tumor cell line 5a-D-Luc-ZsGreen expressing both luciferase and green fluorescent protein. International Journal of Oncology, 2016, 48, 525-532.	3.3	5
49	Automated Image Analysis for Diameters and Branching Points of Cerebral Penetrating Arteries and Veins Captured with Two-Photon Microscopy. Advances in Experimental Medicine and Biology, 2014, 812, 209-215.	1.6	5
50	Neurovascular coupling in primary auditory cortex investigated with voltage-sensitive dye imaging and laser-Doppler flowmetry. Brain Research, 2008, 1244, 82-88.	2.2	4
51	Changes in effective diffusivity for oxygen during neural activation and deactivation estimated from capillary diameter measured by two-photon laser microscope. Journal of Physiological Sciences, 2017, 67, 325-330.	2.1	4
52	Positron emission tomography of cerebral angiogenesis and TSPO expression in a mouse model of chronic hypoxia. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 687-696.	4.3	4
53	Mapping of flow velocity using spatiotemporal changes in timeâ€intensity curves from indocyanine green videoangiography. Microcirculation, 2021, 28, e12685.	1.8	4
54	Neurosurgical intraoperative ultrasonography using contrast enhanced superb microvascular imaging -vessel density and appearance time of the contrast agent-. British Journal of Neurosurgery, 2020, , 1-10.	0.8	3

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55	Threeâ€dimensional microvascular network reconstruction from in vivo images with adaptation of the regional inhomogeneity in the signalâ€toâ€noise ratio. Microcirculation, 2021, 28, e12697.	1.8	3
56	Dynamic Two-Photon Imaging of Cerebral Microcirculation Using Fluorescently Labeled Red Blood Cells and Plasma. Advances in Experimental Medicine and Biology, 2013, 765, 163-168.	1.6	3
57	Automated capillary flow segmentation and mapping for nailfold video capillaroscopy. Microcirculation, 2022, 29, e12753.	1.8	3
58	Oxygen Transport in the Microvessel Network. , 2005, , 13-20.		2
59	Neurovascular couplingâ€"What next?. Progress in Brain Research, 2016, 225, 269-272.	1.4	2
60	Spatiotemporal dynamics of red blood cells in capillaries in layer I of the cerebral cortex and changes in arterial diameter during cortical spreading depression and response to hypercapnia in anesthetized mice. Microcirculation, 2019, 26, e12552.	1.8	2
61	Error Evaluation for Automated Diameter Measurements of Cerebral Capillaries Captured with Two-Photon Laser Scanning Fluorescence Microscopy. Advances in Experimental Medicine and Biology, 2021, 1269, 241-245.	1.6	2
62	Time Series Tracking of Cerebral Microvascular Adaptation to Hypoxia and Hyperoxia Imaged with Repeated In Vivo Two-Photon Microscopy. Advances in Experimental Medicine and Biology, 2021, 1269, 323-327.	1.6	1
63	Vascular permeability of skeletal muscle microvessels in rat arterial ligation model: in vivo analysis using two-photon laser scanning microscopy. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2021, 320, R972-R983.	1.8	1
64	Skeletal Muscle Microvascular Permeability After Eccentric Contraction-Induced Muscle Injury. Medicine and Science in Sports and Exercise, 2018, 50, 143.	0.4	0
65	Optical Imaging of Hemodynamic Changes in Exposed Cortex of Awake Mice. , 2012, , .		0
66	Vessel Specific Imaging of Glucose Transfer with Fluorescent Glucose Analogue in Anesthetized Mouse Cortex. Advances in Experimental Medicine and Biology, 2014, 812, 241-246.	1.6	0
67	1C15 Characterization of astrocytic morphology in in vivo mouse cerebral cortex. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2016, 2016.28, _1C15-1_-_1C15-5_.	0.0	0
68	2F44 Development for mapping the flow velocity dynamics with fluorescent imaging techniques. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2016, 2016.28, _2F44-1_-_2F44-5_.	0.0	0
69	Imaging and quantification of hemodynamic fluctuations in cerebral microcirculation. The Proceedings of Conference of Kanto Branch, 2018, 2018.24, OS1020.	0.0	0