

Hiroshi Kawaguchi

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

827
citations

516561

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h-index

552653

26
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77
all docs

77
docs citations

77
times ranked

1391
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | OUP accepted manuscript. Cerebral Cortex Communications, 2022, 3, tgab064. | 0.7 | 2 |
| 2 | Targeting brain regions of interest in functional near-infrared spectroscopy: Scalp-cortex correlation using subject-specific light propagation models. Human Brain Mapping, 2021, 42, 1969-1986. | 1.9 | 5 |
| 3 | Correlating functional near-infrared spectroscopy with underlying cortical regions of 0-, 1-, and 2-year-olds using theoretical light propagation analysis. Neurophotonics, 2021, 8, 025009. | 1.7 | 3 |
| 4 | Functional near-infrared-spectroscopy-based measurement of changes in cortical activity in macaques during post-infarct recovery of manual dexterity. Scientific Reports, 2020, 10, 6458. | 1.6 | 13 |
| 5 | Exclusive detection of cerebral hemodynamics in functional near-infrared spectroscopy by reflectance modulation of the scalp surface. Journal of Biomedical Optics, 2020, 25, 1. | 1.4 | 1 |
| 6 | In situ estimation of optical properties of rat and monkey brains using femtosecond time-resolved measurements. Scientific Reports, 2019, 9, 9165. | 1.6 | 12 |
| 7 | 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. | 1.0 | 2 |
| 8 | A fNIRS probe positioning system using augmented reality technology. , 2019, , . | | 2 |
| 9 | Time-domain diffuse optical tomography with lp sparsity regularization for thyroid cancer imaging. , 2019, , . | | 0 |
| 10 | Comparison of diffusion-weighted MRI and anti-Stokes Raman scattering (CARS) measurements of the inter-compartmental exchange-time of water in expression-controlled aquaporin-4 cells. Scientific Reports, 2018, 8, 17954. | 1.6 | 18 |
| 11 | Functional near-infrared spectroscopy for monitoring macaque cerebral motor activity during voluntary movements without head fixation. Scientific Reports, 2018, 8, 11941. | 1.6 | 6 |
| 12 | Partial optical path length in the scalp in subject-specific head models for multi-distance probe configuration of near infrared spectroscopy. , 2018, , . | | 0 |
| 13 | 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. | 0.9 | 4 |
| 14 | Design and fabrication of a multi-layered solid dynamic phantom: validation platform on methods for reducing scalp-hemodynamic effect from fNIRS signal. Proceedings of SPIE, 2017, , . | 0.8 | 0 |
| 15 | Functional near infrared spectroscopy for awake monkey to accelerate neurorehabilitation study. , 2017, , . | | 2 |
| 16 | Visual evaluation of kinetic characteristics of PET probe for neuroreceptors using a two-phase graphic plot analysis. Annals of Nuclear Medicine, 2017, 31, 273-282. | 1.2 | 2 |
| 17 | Normative data of dopaminergic neurotransmission functions in substantia nigra measured with MRI and PET: Neuromelanin, dopamine synthesis, dopamine transporters, and dopamine D2 receptors. NeuroImage, 2017, 158, 12-17. | 2.1 | 19 |
| 18 | Estimation of functional areas probed by near-infrared spectroscopy instruments. Proceedings of SPIE, 2017, , . | 0.8 | 0 |

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|----|--|-----|-----------|
| 19 | Dynamic Flow Velocity Mapping from Fluorescent Dye Transit Times in the Brain Surface Microcirculation of Anesthetized Rats and Mice. <i>Microcirculation</i> , 2016, 23, 416-425. | 1.0 | 9 |
| 20 | Diffusion-tensor-based method for robust and practical estimation of axial and radial diffusional kurtosis. <i>European Radiology</i> , 2016, 26, 2559-2566. | 2.3 | 9 |
| 21 | Estimation of partial optical path length in the brain in subject-specific head models for near-infrared spectroscopy. <i>Optical Review</i> , 2016, 23, 316-322. | 1.2 | 10 |
| 22 | Principal Component Analysis of Multimodal Neuromelanin MRI and Dopamine Transporter PET Data Provides a Specific Metric for the Nigral Dopaminergic Neuronal Density. <i>PLoS ONE</i> , 2016, 11, e0151191. | 1.1 | 27 |
| 23 | Fluorescence Imaging of Blood Flow Velocity in the Rodent Brain. <i>Current Topics in Medicinal Chemistry</i> , 2016, 16, 2677-2684. | 1.0 | 8 |
| 24 | Construction of an Anatomical Neck Model for Diffuse Optical Imaging. , 2016, , . | | 1 |
| 25 | 2F44 Development for mapping the flow velocity dynamics with fluorescent imaging techniques. The Proceedings of the Bioengineering Conference Annual Meeting of BED//SME, 2016, 2016.28, _2F44-1_-_2F44-5_. | 0.0 | 0 |
| 26 | Unveiling astrocytic control of cerebral blood flow with optogenetics. <i>Scientific Reports</i> , 2015, 5, 11455. | 1.6 | 72 |
| 27 | Technological Trend of Noninvasive Brain-Function Imaging by Near-Infrared Spectroscopy. <i>Nippon Laser Igakkaishi</i> , 2015, 36, 187-194. | 0.0 | 0 |
| 28 | Hyperperfusion Counteracted by Transient Rapid Vasoconstriction Followed by Long-Lasting Oligemia Induced by Cortical Spreading Depression in Anesthetized Mice. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2015, 35, 689-698. | 2.4 | 15 |
| 29 | Magnetic resonance imaging appropriate for construction of subject-specific head models for diffuse optical tomography. <i>Biomedical Optics Express</i> , 2015, 6, 3197. | 1.5 | 7 |
| 30 | Reconstruction magnetic resonance neurography in chronic inflammatory demyelinating polyneuropathy. <i>Annals of Neurology</i> , 2015, 77, 333-337. | 2.8 | 103 |
| 31 | Reproducibility of measuring cerebral blood flow by laser-Doppler flowmetry in mice. <i>Frontiers in Bioscience - Elite</i> , 2014, E6, 62-68. | 0.9 | 5 |
| 32 | Changes in Cortical Microvasculature during Misery Perfusion Measured by Two-Photon Laser Scanning Microscopy. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 1363-1372. | 2.4 | 22 |
| 33 | Microvascular Sprouting, Extension, and Creation of New Capillary Connections with Adaptation of the Neighboring Astrocytes in Adult Mouse Cortex under Chronic Hypoxia. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 325-331. | 2.4 | 27 |
| 34 | Cerebral hemodynamic response to acute hyperoxia in awake mice. <i>Brain Research</i> , 2014, 1557, 155-163. | 1.1 | 9 |
| 35 | Signal contributions to heavily diffusion-weighted functional magnetic resonance imaging investigated with multi-SE-EPI acquisitions. <i>NeuroImage</i> , 2014, 98, 258-265. | 2.1 | 7 |
| 36 | Evaluation of Rho-Kinase Activity in Mice Brain Using N-[11C]Methyl-hydroxyfasudil with Positron Emission Tomography. <i>Molecular Imaging and Biology</i> , 2014, 16, 395-402. | 1.3 | 11 |

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|----|--|-----|-----------|
| 37 | 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?. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 1761-1770. | 2.4 | 25 |
| 38 | A proposal for PET/MRI attenuation correction with μ -values measured using a fixed-position radiation source and MRI segmentation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2014, 734, 156-161. | 0.7 | 7 |
| 39 | Automated Image Analysis for Diameters and Branching Points of Cerebral Penetrating Arteries and Veins Captured with Two-Photon Microscopy. <i>Advances in Experimental Medicine and Biology</i> , 2014, 812, 209-215. | 0.8 | 5 |
| 40 | Relation between Dopamine Synthesis Capacity and Cell-Level Structure in Human Striatum: A Multi-Modal Study with Positron Emission Tomography and Diffusion Tensor Imaging. <i>PLoS ONE</i> , 2014, 9, e87886. | 1.1 | 15 |
| 41 | Path Length Correction in Exposed-Cortex Optical Imaging using 3D Model Obtained by Two-Photon Microscopy. , 2014, , . | | 0 |
| 42 | Vessel Specific Imaging of Glucose Transfer with Fluorescent Glucose Analogue in Anesthetized Mouse Cortex. <i>Advances in Experimental Medicine and Biology</i> , 2014, 812, 241-246. | 0.8 | 0 |
| 43 | A MRI-based PET attenuation correction with μ -values measured by a fixed-position radiation source. , 2013, , . | | 0 |
| 44 | Long-Term Adaptation of Cerebral Hemodynamic Response to Somatosensory Stimulation during Chronic Hypoxia in Awake Mice. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 774-779. | 2.4 | 30 |
| 45 | Hemodynamic changes during neural deactivation in awake mice: A measurement by laser-Doppler flowmetry in crossed cerebellar diaschisis. <i>Brain Research</i> , 2013, 1537, 350-355. | 1.1 | 16 |
| 46 | Layer-Specific Dilation of Penetrating Arteries Induced by Stimulation of the Nucleus Basalis of Meynert in the Mouse Frontal Cortex. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2013, 33, 1440-1447. | 2.4 | 22 |
| 47 | Effect of probe arrangement on reconstruction of optical brain function imaging. , 2013, , . | | 0 |
| 48 | Visualization of microvessels and capillary bed associated with brain activation. , 2013, , . | | 0 |
| 49 | Dynamic Two-Photon Imaging of Cerebral Microcirculation Using Fluorescently Labeled Red Blood Cells and Plasma. <i>Advances in Experimental Medicine and Biology</i> , 2013, 765, 163-168. | 0.8 | 3 |
| 50 | Hypoxia-Induced Cerebral Angiogenesis in Mouse Cortex with Two-Photon Microscopy. <i>Advances in Experimental Medicine and Biology</i> , 2013, 789, 15-20. | 0.8 | 11 |
| 51 | Measuring the Vascular Diameter of Brain Surface and Parenchymal Arteries in Awake Mouse. <i>Advances in Experimental Medicine and Biology</i> , 2013, 789, 419-425. | 0.8 | 23 |
| 52 | The influence of frontal sinus in brain activation measurements by near-infrared spectroscopy analyzed by realistic head models. <i>Biomedical Optics Express</i> , 2012, 3, 2121. | 1.5 | 22 |
| 53 | Hybrid segmentation-atlas method for PET-MRI attenuation correction. , 2012, , . | | 4 |
| 54 | Hemodynamic changes during somatosensory stimulation in awake and isoflurane-anesthetized mice measured by laser-Doppler flowmetry. <i>Brain Research</i> , 2012, 1472, 107-112. | 1.1 | 32 |

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|----|--|-----|-----------|
| 55 | Image-based vessel-by-vessel analysis for red blood cell and plasma dynamics with automatic segmentation. <i>Microvascular Research</i> , 2012, 84, 178-187. | 1.1 | 10 |
| 56 | 7D22 Quantitative analysis of micro vascular network structure in the cerebral cortex.. The Proceedings of the Bioengineering Conference Annual Meeting of BED/JSME, 2012, 2012.24, _7D22-1_-_7D22-2_. | 0.0 | 0 |
| 57 | Analysis of Light Propagation in a Realistic Head Model Including Frontal Sinus. , 2012, , . | | 0 |
| 58 | Segmentation of magnetic resonance images to construct human head model for diffuse optical imaging. <i>Proceedings of SPIE</i> , 2011, , . | 0.8 | 0 |
| 59 | Anatomic dependency of phase shifts in the cerebral venous system of neonates at susceptibility-weighted MRI. <i>Journal of Magnetic Resonance Imaging</i> , 2011, 34, 1031-1036. | 1.9 | 5 |
| 60 | Phantom experiments for quantitative evaluation of topographic image by mapping algorithm. <i>Proceedings of SPIE</i> , 2011, , . | 0.8 | 1 |
| 61 | Spatial Frequency-Based Analysis of Mean Red Blood Cell Speed in Single Microvessels: Investigation of Microvascular Perfusion in Rat Cerebral Cortex. <i>PLoS ONE</i> , 2011, 6, e24056. | 1.1 | 22 |
| 62 | Segmentation of magnetic resonance images to construct human head model for diffuse optical imaging. , 2011, , . | | 0 |
| 63 | Voxel-based analysis of the diffusion tensor. <i>Neuroradiology</i> , 2010, 52, 699-710. | 1.1 | 59 |
| 64 | Regional heterogeneity and age-related change in sub-regions of internal capsule evaluated by diffusion tensor imaging. <i>Brain Research</i> , 2010, 1354, 30-39. | 1.1 | 12 |
| 65 | A Head Phantom for Use in Near Infrared Topography for Brain Function Measurements. , 2010, , . | | 0 |
| 66 | Validation of practical diffusion approximation for virtual near infrared spectroscopy using a digital head phantom. <i>Optical Review</i> , 2009, 16, 153-159. | 1.2 | 7 |
| 67 | Theoretical analysis of crosstalk between oxygenated and deoxygenated haemoglobin in focal brain-activation measurements by near-infrared topography. <i>Opto-electronics Review</i> , 2008, 16, . | 2.4 | 3 |
| 68 | Normalized Adult Head Model for the Image Reconstruction Algorithm of NIR Topography. , 2008, , . | | 0 |
| 69 | Evaluation of image reconstruction algorithm for near infrared topography by virtual head phantom. <i>Proceedings of SPIE</i> , 2007, , . | 0.8 | 2 |
| 70 | Effect of probe arrangement on reproducibility of images by near-infrared topography evaluated by a virtual head phantom. <i>Applied Optics</i> , 2007, 46, 1658. | 2.1 | 27 |
| 71 | Virtual Head Phantom for Evaluation of Near Infrared Topography. , 2006, , . | | 0 |
| 72 | Image reconstruction using spatial sensitivity profile with the constraint of spatial frequency in image for near-infrared topography. , 2005, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Image Reconstruction Using Spatial Sensitivity Profile with the Constraint of Spatial Frequency in Image for Near-Infrared Topography. , 2005, , . | | 0 |
| 74 | Theoretical evaluation of accuracy in position and size of brain activity obtained by near-infrared topography. Physics in Medicine and Biology, 2004, 49, 2753-2765. | 1.6 | 30 |
| 75 | <title>Modeling of light distribution in the brain for topographical imaging</title>. , 2004, 5486, 1. | | 0 |
| 76 | Evaluation of spatial resolution of near-infrared topography using spatial sensitivity profile. , 2003, 5138, 249. | | 1 |
| 77 | Improvement of near-infrared topography by optode arrangement and reconstruction algorithm using spatial sensitivity profile. , 0, , . | | 0 |