Makito Haruta

List of Publications by Year
in descending order

82 papers	650 citations	623734 14 h-index	642732 23 g-index
83 all docs	83 docs citations	83 times ranked	448 citing authors

#	Article	IF	Citations
1	Highly sensitive lens-free fluorescence imaging device enabled by a complementary combination of interference and absorption filters. Biomedical Optics Express, 2018, 9, 4329.	2.9	47
2	1 mm3-sized optical neural stimulator based on CMOS integrated photovoltaic power receiver. AIP Advances, 2018, 8, .	1.3	46
3	An implantable CMOS device for blood-flow imaging during experiments on freely moving rats. Japanese Journal of Applied Physics, 2014, 53, 04EL05.	1.5	41
4	Implantable Microimaging Device for Observing Brain Activities of Rodents. Proceedings of the IEEE, 2017, 105, 158-166.	21.3	35
5	Novel implantable imaging system for enabling simultaneous multiplanar and multipoint analysis for fluorescence potentiometry in the visual cortex. Biosensors and Bioelectronics, 2012, 38, 321-330.	10.1	33
6	Intravital fluorescence imaging of mouse brain using implantable semiconductor devices and epi-illumination of biological tissue. Biomedical Optics Express, 2015, 6, 1553.	2.9	29
7	An Implantable CMOS Image Sensor With Self-Reset Pixels for Functional Brain Imaging. IEEE Transactions on Electron Devices, 2016, 63, 215-222.	3.0	29
8	On-chip cell analysis platform: Implementation of contact fluorescence microscopy in microfluidic chips. AIP Advances, 2017, 7, 095213.	1.3	22
9	Wide field-of-view lensless fluorescence imaging device with hybrid bandpass emission filter. AIP Advances, 2019, 9, .	1.3	22
10	â€œOptical communication with brain cells by means of an implanted duplex micro-device with optogenetics and Ca2+ fluoroimagingâ€• Scientific Reports, 2016, 6, 21247.	3.3	20
11	Implantable self-reset CMOS image sensor and its application to hemodynamic response detection in living mouse brain. Japanese Journal of Applied Physics, 2016, 55, 04EM02.	1.5	20
12	Implantable imaging device for brain functional imaging system using flavoprotein fluorescence. Japanese Journal of Applied Physics, 2016, 55, 03DF02.	1.5	20
13	Implantable CMOS image sensor with incidentâ€•angleâ€•selective pixels. Electronics Letters, 2019, 55, 729-731.	1.0	19
14	Intrinsic signal imaging of brain function using a small implantable CMOS imaging device. Japanese Journal of Applied Physics, 2015, 54, 04DL10.	1.5	17
15	Needle-Type Imager Sensor With Band-Pass Composite Emission Filter and Parallel Fiber-Coupled Laser Excitation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1082-1091.	5.4	17
16	Wearable and Battery-Free Health-Monitoring Devices With Optical Power Transfer. IEEE Sensors Journal, 2021, 21, 9402-9412.	4.7	14
17	Functional brain fluorescence plurimetry in rat by implantable concatenated CMOS imaging system. Biosensors and Bioelectronics, 2014, 53, 31-36.	10.1	13
18	Polarization Image Sensor for Highly Sensitive Polarization Modulation Imaging Based on Stacked Polarizers. IEEE Transactions on Electron Devices, 2022, 69, 2924-2931.	3.0	13

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19	Photoactivatable oncolytic adenovirus for optogenetic cancer therapy. Cell Death and Disease, 2020, 11, 570.	6.3	12
20	Micro-LED Array-Based Photo-Stimulation Devices for Optogenetics in Rat and Macaque Monkey Brains. IEEE Access, 2021, 9, 127937-127949.	4.2	11
21	CMOS-based optical energy harvesting circuit for biomedical and Internet of Things devices. Japanese Journal of Applied Physics, 2018, 57, 04FM05.	1.5	10
22	Simultaneous CMOS-Based Imaging of Calcium Signaling of the Central Amygdala and the Dorsal Raphe Nucleus During Nociception in Freely Moving Mice. Frontiers in Neuroscience, 2021, 15, 667708.	2.8	10
23	Implantable CMOS imaging device with absorption filters for green fluorescence imaging. Proceedings of SPIE, 2014, , .	0.8	9
24	Wireless image-data transmission from an implanted image sensor through a living mouse brain by intra body communication. Japanese Journal of Applied Physics, 2016, 55, 04EM03.	1.5	9
25	Fe₂O₃/MWCNTs modified microdialysis electrode for dopamine detection. Materials Research Express, 2020, 7, 015701.	1.6	9
26	Lens-free Dual-color Fluorescent CMOS Image Sensor for F?rster Resonance Energy Transfer Imaging. Sensors and Materials, 2019, 31, 2579.	0.5	9
27	Stimulator Design of Retinal Prosthesis. IEICE Transactions on Electronics, 2017, E100.C, 523-528.	0.6	8
28	Implantable optogenetic device with CMOS IC technology for simultaneous optical measurement and stimulation. Japanese Journal of Applied Physics, 2017, 56, 057001.	1.5	7
29	Propranolol prevents cerebral blood flow changes and pain-related behaviors in migraine model mice. Biochemical and Biophysical Research Communications, 2019, 508, 445-450.	2.1	7
30	Chronic brain blood-flow imaging device for a behavioral experiment using mice. Biomedical Optics Express, 2019, 10, 1557.	2.9	7
31	Fabrication and in vivo demonstration of microchip-embedded smart electrode device for neural stimulation in retinal prosthesis. , 2017, , .		6
32	Lensless dual-color fluorescence imaging device using hybrid filter. Japanese Journal of Applied Physics, 2022, 61, SC1020.	1.5	6
33	Investigating the Influence of GABA Neurons on Dopamine Neurons in the Ventral Tegmental Area Using Optogenetic Techniques. International Journal of Molecular Sciences, 2022, 23, 1114.	4.1	6
34	Self-Reset Image Sensor With a Signal-to-Noise Ratio Over 70 dB and Its Application to Brain Surface Imaging. Frontiers in Neuroscience, 2021, 15, 667932.	2.8	5
35	Performance improvement and in vivo demonstration of a sophisticated retinal stimulator using smart electrodes with built-in CMOS microchips. Japanese Journal of Applied Physics, 2018, 57, 1002B3.	1.5	4
36	Miniaturized LED light source with an excitation filter for fluorescent imaging. Japanese Journal of Applied Physics, 2021, 60, SBBG07.	1.5	4

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37	Honeycomb-type retinal device using chemically derived iridium oxide biointerfaces. AIP Advances, 2021, 11, .	1.3	4
38	Fluorescence imaging under background light with a selfâ€reset complementary metalâ€“oxideâ€“semiconductor image sensor. Journal of Engineering, 2015, 2015, 328-330.	1.1	4
39	Functional Validation of Intelligent Retinal Stimulator Using Microchip-embedded Smart Electrode. Sensors and Materials, 2018, , 167.	0.5	4
40	Electrochemical Evaluation of Geometrical Effect and Three-dimensionalized Effect of Iridium Oxide Electrodes Used for Retinal Stimulation. Sensors and Materials, 2018, , 213.	0.5	4
41	Modular head-mounted cortical imaging device for chronic monitoring of intrinsic signals in mice. Journal of Biomedical Optics, 2022, 27, .	2.6	4
42	An implantable green fluorescence imaging device using absorption filters with high excitation light rejection ratio. , 2014, , .		3
43	Near-infrared fundus camera with a patterned interference filter for the retinal scattering detection. Japanese Journal of Applied Physics, 2021, 60, SBBL07.	1.5	3
44	Implantable CMOS image sensor with a neural amplifier for simultaneous recording of optical and electrophysiological signals. , 2021, , .		3
45	Compact Lensless Fluorescence Counting System for Single Molecular Assay. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1177-1185.	4.0	2
46	Image Sensor with Hybirid Emission Filter for <i>in-vivo</i> Fluorescent Imaging. IEEJ Transactions on Sensors and Micromachines, 2021, 141, 71-76.	0.1	2
47	Randles Circuit Model for Characterizing a Porous Stimulating Electrode of the Retinal Prosthesis. IEEJ Transactions on Sensors and Micromachines, 2021, 141, 134-140.	0.1	2
48	Design Optimization of CMOS Control Circuit for Integrated Photovoltaic Power Transfer. Sensors and Materials, 2018, 30, 2343.	0.5	2
49	Fe and Co-doped (Ba, Ca)TiO3 Perovskite as Potential Electrocatalysts for Glutamate Sensing. Engineering Journal, 2019, 23, 265-278.	1.0	2
50	Dual-color lensless fluorescence imaging by using a notch interference filter and absorption filters. , 2021, , .		2
51	Ultrasmall compact CMOS imaging system for bioluminescence reporter-based live gene expression analysis. Journal of Biomedical Optics, 2021, 26, .	2.6	2
52	Demonstration of implantable CMOS image sensors for functional brain imaging. , 2014, , .		1
53	An implantable image sensor with self-reset function for brain imaging. , 2014, , .		1
54	Hemodynamic imaging using an implantable self-reset image sensor. , 2016, , .		1

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55	Automatic Determination of Blood Flow Velocity in Brain Microvessels in a Cerebral Infarction Model Mouse Using a Small Implantable CMOS Imaging Device. Advanced Biomedical Engineering, 2017, 6, 68-75.	0.6	1
56	Battery-Free. Sticker-Like, Device for Health Monitoring, Operated by Optical Power Transfer. , 2018, , .		1
57	A Thin Composite Emission Filter and Fiber Coupled Laser Excitation for Implantable Fluorescence Imager Application. , 2019, , .		1
58	Establishment of meteoropathy model mice. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2021, 94, 1-O-C1-1.	0.0	1
59	CMOS-Based Neural Interface Device for Optogenetics. Advances in Experimental Medicine and Biology, 2021, 1293, 585-600.	1.6	1
60	Image sensor with hybrid emission filter for in vivo fluorescent imaging. Electronics and Communications in Japan, 2021, 104, e12313.	0.5	1
61	Comparison of the effects of Goreisan and loxoprofen on cerebral blood flow dynamics in meteoropathy model mice. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2021, 94, 3-P1-07.	0.0	1
62	Fabrication of thin composite emission filter for high-performance lens-free fluorescent imager. , 2020, , .		1
63	Development of a CMOS-based implantable device for wide-area brain functional imaging. , 2012, , .		0
64	Noise performance of an implantable self-reset CMOS image sensor. , 2014, , .		0
65	Fluorescence imaging device with an ultra-thin micro-LED. , 2017, , .		0
66	CMOS-based opto-electric neural interface devices for optogenetics. , 2017, , .		0
67	Excitation and Emission Filters for Implantable Fluorescence Imaging Devices by Laser Lift-Off Process. , 2018, , .		0
68	Live Demonstration: IoT micronode with optical ID transmission capability operated by optical energy harvesting. , 2018, , .		0
69	Live Demonstration: Lensless Highly Sensitive Fluorescence Imaging. , 2019, , .		0
70	Miniaturized CMOS imaging device for implantable applications. , 2020, , .		0
71	Implantable Fluorescent CMOS Imaging Device. , 2020, , .		0
72	Optical Powering Platform for Ultra-Small Implantable Devices. IEEJ Transactions on Sensors and Micromachines, 2021, 141, 63-70.	0.1	0

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73	Randles circuit model for characterizing a porous stimulating electrode of the retinal prosthesis. Electronics and Communications in Japan, 2021, 104, e12324.	0.5	0
74	AC power supply circuit architecture for a miniaturised retinal prosthesis device. Journal of Engineering, 2021, 2021, 546-551.	1.1	0
75	Implantable semiconductor imaging devices for in vivo optical imaging of brain. , 2015, , .		0
76	Propranolol prevents changes in cerebral blood flow and pain-related behaviors in migraine model mice. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2019, 92, 2-P-043.	0.0	0
77	Image refocusing of miniature CMOS image sensor with angle-selective pixels. , 2020, , .		0
78	Spatial Resolution Improvement of Lensless Fluorescence Imaging Device with Hybrid Emission Filter. , 2020, , .		0
79	Implantable CMOS Fluorescent Imaging Devices. Brain Informatics and Health, 2020, , 129-145.	0.4	0
80	Optical Biosensors: Implantable Multimodal Devices in Freely Moving Rodents. , 2022, , 143-157.		0
81	1. Trends in Special Imaging Technologies. Kyokai Joho Imeji Zasshi/Journal of the Institute of Image Information and Television Engineers, 2019, 73, 237-242.	0.1	0
82	Enhancing infrared color reproducibility through multispectral image processing using RGB and three infrared channels. Optical Engineering, 2022, 61, .	1.0	0