

Mesut Aahin

List of Publications by Year in descending order

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Version: 2024-02-01

73
papers

711
citations

623188

14
h-index

610482

24
g-index

84
all docs

84
docs citations

84
times ranked

772
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-rectangular waveforms for neural stimulation with practical electrodes. <i>Journal of Neural Engineering</i> , 2007, 4, 227-233.	1.8	129
2	Chronic tissue response to untethered microelectrode implants in the rat brain and spinal cord. <i>Journal of Neural Engineering</i> , 2015, 12, 016019.	1.8	57
3	Floating light-activated microelectrical stimulators tested in the rat spinal cord. <i>Journal of Neural Engineering</i> , 2011, 8, 056012.	1.8	45
4	Selective Stimulation of the Canine Hypoglossal Nerve Using a Multi-contact Cuff Electrode. <i>Annals of Biomedical Engineering</i> , 2004, 32, 511-519.	1.3	40
5	Near-infrared light penetration profile in the rodent brain. <i>Journal of Biomedical Optics</i> , 2013, 18, 075001.	1.4	27
6	Entrainment of cerebellar purkinje cells with directional AC electric fields in anesthetized rats. <i>Brain Stimulation</i> , 2020, 13, 1548-1558.	0.7	24
7	Wireless Microstimulators for Neural Prosthetics. <i>Critical Reviews in Biomedical Engineering</i> , 2011, 39, 63-77.	0.5	22
8	Feasibility of Neural Stimulation With Floating-Light-Activated Microelectrical Stimulators. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2011, 5, 179-188.	2.7	21
9	Electrical fields induced inside the rat brain with skin, skull, and dural placements of the current injection electrode. <i>PLoS ONE</i> , 2019, 14, e0203727.	1.1	21
10	Differential effects of ketamine/xylazine anesthesia on the cerebral and cerebellar cortical activities in the rat. <i>Journal of Neurophysiology</i> , 2013, 109, 1435-1443.	0.9	20
11	Improved selectivity from a wavelength addressable device for wireless stimulation of neural tissue. <i>Frontiers in Neuroengineering</i> , 2014, 7, 5.	4.8	17
12	Entrainment of cerebellar Purkinje cell spiking activity using pulsed ultrasound stimulation. <i>Brain Stimulation</i> , 2021, 14, 598-606.	0.7	17
13	NIR Light Penetration Depth in the Rat Peripheral Nerve and Brain Cortex. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2007, 2007, 1723-5.	0.5	15
14	Electrophysiological monitoring of injury progression in the rat cerebellar cortex. <i>Frontiers in Systems Neuroscience</i> , 2014, 8, 197.	1.2	15
15	Polydimethylsiloxane-based optical waveguides for tetherless powering of floating microstimulators. <i>Journal of Biomedical Optics</i> , 2017, 22, 055005.	1.4	14
16	Can motor volition be extracted from the spinal cord?. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2012, 9, 41.	2.4	13
17	Encoding of forelimb forces by corticospinal tract activity in the rat. <i>Frontiers in Neuroscience</i> , 2014, 8, 62.	1.4	13
18	Characterization of neural activity recorded from the descending tracts of the rat spinal cord. <i>Frontiers in Neuroscience</i> , 2010, 4, 21.	1.4	12

#	ARTICLE	IF	CITATIONS
19	A Wearable Ultrasonic Neurostimulator - Part I: A 1D CMUT Phased Array System for Chronic Implantation in Small Animals. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 692-704.	2.7	12
20	Extraction of motor activity from the cervical spinal cord of behaving rats. Journal of Neural Engineering, 2006, 3, 287-292.	1.8	11
21	Dilation of the oropharynx via selective stimulation of the hypoglossal nerve. Journal of Neural Engineering, 2005, 2, 73-80.	1.8	10
22	Temperature elevation profile inside the rat brain induced by a laser beam. Journal of Biomedical Optics, 2014, 19, 015009.	1.4	10
23	Charge Injection Capacity of TiN Electrodes for an Extended Voltage Range. , 2006, 2006, 890-2.		9
24	Finite Element Analysis of a Floating Microstimulator. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2007, 15, 227-234.	2.7	9
25	High frequency synchrony in the cerebellar cortex during goal directed movements. Frontiers in Systems Neuroscience, 2015, 9, 98.	1.2	9
26	Convolutional Networks Outperform Linear Decoders in Predicting EMG From Spinal Cord Signals. Frontiers in Neuroscience, 2018, 12, 689.	1.4	8
27	A Sub-Millimeter Lateral Resolution Ultrasonic Beamforming System for Brain Stimulation in Behaving Animals. , 2019, 2019, 6462-6465.		8
28	Separation of spinal cord motor signals using the FastICA method. Journal of Neural Engineering, 2005, 2, 90-96.	1.8	7
29	In Vitro Testing of Floating Light Activated Micro-Electrical Stimulators. , 2009, 2009, 626-9.		7
30	Modulation of Multiunit Spike Activity by Transcranial AC Stimulation (tACS) in the Rat Cerebellar Cortex. , 2019, 2019, 5192-5195.		7
31	Feature selection on single-lead ECG for obstructive sleep apnea diagnosis. Turkish Journal of Electrical Engineering and Computer Sciences, 2014, 22, 465-478.	0.9	6
32	Carbon Fiber Electrodes for in Vivo Spinal Cord Recordings. , 2018, 2018, 5069-5072.		6
33	Towards an Untethered Ultrasound Beamforming System for Brain Stimulation in Behaving Animals. , 2018, 2018, 1596-1599.		6
34	Electrophysiological Correlates of Blast-Wave Induced Cerebellar Injury. Scientific Reports, 2018, 8, 13633.	1.6	6
35	Finite element analysis of a microelectrode on a substrate. , 2004, 2004, 4157-9.		5
36	Addressable floating light activated micro-electrical stimulators for wireless neurostimulation. , 2011, , .		5

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37	Prediction of Forelimb EMGs and Movement Phases from Corticospinal Signals in the Rat During the Reach-to-Pull Task. International Journal of Neural Systems, 2019, 29, 1950009.	3.2	5
38	A low-noise preamplifier for nerve cuff electrodes. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2005, 13, 561-565.	2.7	4
39	Spinal cord recordings in rats during skilled reaching task. , 2009, 2009, 582-5.		4
40	Active C4 Electrodes for Local Field Potential Recording Applications. Sensors, 2016, 16, 198.	2.1	4
41	Information Capacity of the Corticospinal Tract Recordings as a Neural Interface. Annals of Biomedical Engineering, 2004, 32, 823-830.	1.3	3
42	Intraspinal stimulation with light activated micro-stimulators. , 2011, , .		3
43	Chronic recordings from the rat spinal cord descending tracts with microwires. , 2011, 2011, 2993-6.		3
44	Effect of Anesthesia on spontaneous activity and evoked potentials of the cerebellar cortex. , 2012, 2012, 835-8.		3
45	Prediction of forelimb muscle EMGs from the corticospinal signals in rats. , 2016, 2016, 2780-2783.		3
46	Electric Fields Induced By Transcutaneous And Intracranial Current Injections In The Rat Brain. , 2018, 2018, 2252-2255.		3
47	Multi-Channel Recordings of the Motor Activity From the Spinal Cord of Behaving Rats. , 2006, 2006, 2288-91.		2
48	A PDMS-based optical waveguide for transcutaneous powering of microelectrode arrays. , 2016, 2016, 4475-4478.		2
49	Selective neural stimulation by leveraging electrophysiological differentiation and using pre-pulsing and non-rectangular waveforms. Journal of Computational Neuroscience, 2022, 50, 313-330.	0.6	2
50	Organization of the fibers in the dorsolateral funiculus of the cervical spinal cord in the cat. , 2004, 2004, 4696-9.		1
51	Signal characteristics of cerebellar activity recorded with 2D micro-electrode arrays. , 2009, 2009, 2937-9.		1
52	A 16 × 16 multi-electrode array with integrated CMOS amplifiers for neural signal recording. , 2011, , .		1
53	Temperature elevation inside neural tissue illuminated by NIR laser. , 2011, 2011, 3987-9.		1
54	An electroacoustic recording device for wireless sensing of neural signals. , 2013, 2013, 3086-8.		1

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55	FEA modeling of temperature elevation in neural tissue illuminated by a laser: Transient effects. , 2013, , .		1
56	Activation patterns of the tongue muscles with selective stimulation of the hypoglossal nerve. , 2004, 2004, 4275-8.		0
57	Organization in the descending tracts of the dorsolateral funiculus in the cat. Brain Research, 2006, 1117, 61-68.	1.1	0
58	Optimal Pulse Widths for Effective Use of the Electrode Surface Area. , 2007, , .		0
59	NIR light penetration in unfrozen samples of rat brain gray matter. , 2009, , .		0
60	Electrophysiological monitoring of cerebellar evoked potentials following fluid percussion injury. , 2013, , .		0
61	Spatial patterns of high-frequency oscillations in the rat cerebellar cortex. , 2014, 2014, 4107-10.		0
62	Rat forelimb movement components segregated by corticospinal tract activity. , 2017, , .		0
63	Genioglossal response to mechanical vibrations of the mandible and the submandibular muscles. Journal of Applied Physiology, 2019, 127, 11-21.	1.2	0
64	Wireless Microstimulators. , 2013, , 1-11.		0
65	Wireless Microstimulators. , 2014, , 1-11.		0
66	Optical Isolation of Physiological Amplifiers. , 2020, , 123-132.		0
67	Electrophysiological Amplifier. , 2020, , 11-38.		0
68	Extraction of Respiratory Rate from ECG (ECG-Derived Respiration-EDR). , 2020, , 133-140.		0
69	Oscillometric Method for Measurement of Blood Pressure. , 2020, , 73-86.		0
70	The size of via holes influence the amplitude and selectivity of neural signals in Micro-ECoG arrays. BMC Biomedical Engineering, 2022, 4, 3.	1.7	0
71	Charge Injection Capacity of TiN Electrodes for an Extended Voltage Range. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
72	Multi-Channel Recordings of the Motor Activity From the Spinal Cord of Behaving Rats. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0

#	ARTICLE	IF	CITATIONS
73	Wireless Microstimulators. , 2022, , 3647-3656.		0