Kip A Ludwig

List of Publications by Year
in descending order

47 papers	3,476 citations	361413 20 h-index	233421 45 g-index
71 all docs	71 docs citations	71 times ranked	4361 citing authors

#	Article	IF	Citations
1	Electronic Bone Growth Stimulators for Augmentation of Osteogenesis in In Vitro and In Vivo Models: A Narrative Review of Electrical Stimulation Mechanisms and Device Specifications. Frontiers in Bioengineering and Biotechnology, 2022, 10, 793945.	4.1	12
2	Intracortical microstimulation pulse waveform and frequency recruits distinct spatiotemporal patterns of cortical neuron and neuropil activation. Journal of Neural Engineering, 2022, 19, 026024.	3.5	8
3	Characterization of Electrodes to Record Neural Signals in the Periphery. FASEB Journal, 2022, 36, .	0.5	0
4	Electrical Stimulation of Acute Fractures: A Narrative Review of Stimulation Protocols and Device Specifications. Frontiers in Bioengineering and Biotechnology, 2022, 10, .	4.1	3
5	Calcium imaging in freely moving mice during electrical stimulation of deep brain structures. Journal of Neural Engineering, 2021, 18, 026008.	3.5	19
6	Auricular Vagus Neuromodulationâ€"A Systematic Review on Quality of Evidence and Clinical Effects. Frontiers in Neuroscience, 2021, 15, 664740.	2.8	21
7	Recruitment of Primary Afferents by Dorsal Root Ganglion Stimulation using the Injectrode. , 2021, 2021, 609-612.		0
8	The Fourth Bioelectronic Medicine Summit â€œTechnology Targeting Molecular Mechanismsâ€ current progress, challenges, and charting the future. Bioelectronic Medicine, 2021, 7, 7.	2.3	5
9	Integral methods for automatic quantification of fast-scan-cyclic-voltammetry detected neurotransmitters. PLoS ONE, 2021, 16, e0254594.	2.5	2
10	Next-Generation Diamond Electrodes for Neurochemical Sensing: Challenges and Opportunities. Micromachines, 2021, 12, 128.	2.9	15
11	Stimulation of the dorsal root ganglion using an Injectrode^{Â®}. Journal of Neural Engineering, 2021, 18, 056068.	3.5	9
12	In vivo Visualization of Pig Vagus Nerve â€œVagotopyâ€•Using Ultrasound. Frontiers in Neuroscience, 2021, 15, 676680.	2.8	9
13	Augmented Transcutaneous Stimulation Using an Injectable Electrode: A Computational Study. Frontiers in Bioengineering and Biotechnology, 2021, 9, 796042.	4.1	4
14	Sources of off-target effects of vagus nerve stimulation using the helical clinical lead in domestic pigs. Journal of Neural Engineering, 2020, 17, 046017.	3.5	55
15	<i>In vivo</i> microstimulation with cathodic and anodic asymmetric waveforms modulates spatiotemporal calcium dynamics in cortical neuropil and pyramidal neurons of male mice. Journal of Neuroscience Research, 2020, 98, 2072-2095.	2.9	32
16	Functional vagotopy in the cervical vagus nerve of the domestic pig: implications for the study of vagus nerve stimulation. Journal of Neural Engineering, 2020, 17, 026022.	3.5	72
17	Clinically-derived vagus nerve stimulation enhances cerebrospinal fluid penetrance. Brain Stimulation, 2020, 13, 1024-1030.	1.6	26
18	SPARC: A Road Map for Vagus Nerve Stimulation: Evidence of Vagotopy in a Swine Model. FASEB Journal, 2020, 34, 1-1.	0.5	2

#	Article	IF	Citations
19	SPARC: Neural elements mediating side effects during cervical vagus nerve stimulation in the pig. FASEB Journal, 2020, 34, 1-1.	0.5	1
20	Flexible, multichannel cuff electrode for selective electrical stimulation of the mouse trigeminal nerve. Biosensors and Bioelectronics, 2019, 142, 111493.	10.1	7
21	An Injectable Neural Stimulation Electrode Made from an Inâ€Body Curing Polymer/Metal Composite. Advanced Healthcare Materials, 2019, 8, e1900892.	7.6	32
22	Î¼ECoG Recordings Through a Thinned Skull. Frontiers in Neuroscience, 2019, 13, 1017.	2.8	15
23	Cleveland neural engineering workshop 2017: strategic evaluation of neural engineering. Bioelectronic Medicine, 2019, 5, 2.	2.3	2
24	Neural Interfaces: An Injectable Neural Stimulation Electrode Made from an Inâ€Body Curing Polymer/Metal Composite (Adv. Healthcare Mater. 23/2019). Advanced Healthcare Materials, 2019, 8, 1970090.	7.6	1
25	Calcium activation of cortical neurons by continuous electrical stimulation: Frequency dependence, temporal fidelity, and activation density. Journal of Neuroscience Research, 2019, 97, 620-638.	2.9	67
26	A Materials Roadmap to Functional Neural Interface Design. Advanced Functional Materials, 2018, 28, 1701269.	14.9	266
27	Design Choices for Next-Generation Neurotechnology Can Impact Motion Artifact in Electrophysiological and Fast-Scan Cyclic Voltammetry Measurements. Micromachines, 2018, 9, 494.	2.9	15
28	The Brain Initiativeâ€"Implications for a Revolutionary Change in Clinical Medicine via Neuromodulation Technology. , 2018, , 55-68.		4
29	The Safe Delivery of Electrical Currents and Neuromodulation. , 2018, , 83-94.		5
30	Computational Modeling of Neurotransmitter Release Evoked by Electrical Stimulation: Nonlinear Approaches to Predicting Stimulation-Evoked Dopamine Release. ACS Chemical Neuroscience, 2017, 8, 394-410.	3.5	25
31	Detection of norepinephrine in whole blood via fast scan cyclic voltammetry. , 2017, 2017, 111-116.		10
32	Glial responses to implanted electrodes in the brain. Nature Biomedical Engineering, 2017, 1, 862-877.	22.5	402
33	Non-clinical and Pre-clinical Testing to Demonstrate Safety of the Barostim Neo Electrode for Activation of Carotid Baroreceptors in Chronic Human Implants. Frontiers in Neuroscience, 2017, 11, 438.	2.8	27
34	Tissue damage thresholds during therapeutic electrical stimulation. Journal of Neural Engineering, 2016, 13, 021001.	3.5	258
35	Prioritized research recommendations from the <scp>N</scp>ational <scp>I</scp>nstitute of <scp>N</scp>eurological <scp>D</scp>isorders and <scp>S</scp>troke <scp><i>P</i></scp><i>arkinson's</i><scp><i>D</i></scp><i>isease 2014 conference</i>. Annals of Neurology, 2014, 76, 469-472.	5.3	75
36	Bioelectronic medicines: a research roadmap. Nature Reviews Drug Discovery, 2014, 13, 399-400.	46.4	283

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37	Electrochemical sensing via selective surface modification of iridium microelectrodes to create a platinum black interface. , 2013, , 961-964.		1
38	Acquiring Brain Signals from within the Brain. , 2012, , 81-103.		5
39	Poly(3,4-ethylenedioxythiophene) (PEDOT) polymer coatings facilitate smaller neural recording electrodes. Journal of Neural Engineering, 2011, 8, 014001.	3.5	225
40	Use of a Bayesian maximum-likelihood classifier to generate training data for brainâ€“machine interfaces. Journal of Neural Engineering, 2011, 8, 049801.	3.5	20
41	Use of a Bayesian maximum-likelihood classifier to generate training data for brainâ€“machine interfaces. Journal of Neural Engineering, 2011, 8, 046009.	3.5	16
42	Using a Common Average Reference to Improve Cortical Neuron Recordings From Microelectrode Arrays. Journal of Neurophysiology, 2009, 101, 1679-1689.	1.8	359
43	Interfacing Conducting Polymer Nanotubes with the Central Nervous System: Chronic Neural Recording using Poly(3,4â€ethylenedioxythiophene) Nanotubes. Advanced Materials, 2009, 21, 3764-3770.	21.0	246
44	Flavopiridol reduces the impedance of neural prostheses in vivo without affecting recording quality. Journal of Neuroscience Methods, 2009, 183, 149-157.	2.5	48
45	8.6 ELECTRICAL CAROTID BARORECEPTOR ACTIVATION LOWERS RENAL ARTERY IMPEDANCE AND STIFFNESS IN AN ACUTE CANINE MODEL. Artery Research, 2009, 3, 160.	0.6	1
46	Chronic neural recordings using silicon microelectrode arrays electrochemically deposited with a poly(3,4-ethylenedioxythiophene) (PEDOT) film. Journal of Neural Engineering, 2006, 3, 59-70.	3.5	570
47	NaÃ¯ve coadaptive cortical control. Journal of Neural Engineering, 2005, 2, 52-63.	3.5	94