Pavel A Takmakov

List of Publications by Year
in descending order

31 papers	2,084 citations	331259 21 h-index	525886 27 g-index
35 all docs	35 docs citations	35 times ranked	2534 citing authors

#	Article	IF	Citations
1	Characterization of Parylene-C degradation mechanisms: In vitro reactive accelerated aging model compared to multiyear in vivo implantation. Biomaterials, 2020, 232, 119731.	5.7	56
2	Electrochemical Evaluations of Fractal Microelectrodes for Energy Efficient Neurostimulation. Scientific Reports, 2018, 8, 4375.	1.6	36
3	Neural electrode resilience against dielectric damage may be improved by use of highly doped silicon as a conductive material. Journal of Neuroscience Methods, 2018, 293, 210-225.	1.3	20
4	Public Regulatory Databases as a Source of Insight for Neuromodulation Devices Stimulation Parameters. Neuromodulation, 2018, 21, 117-125.	0.4	17
5	Automated reactive accelerated aging for rapid in vitro evaluation of neural implant performance. Review of Scientific Instruments, 2018, 89, 094301.	0.6	20
6	Electrochemistry of a Robust Neural Interface. Electrochemical Society Interface, 2017, 26, 49-51.	0.3	7
7	(Invited) Effect of Surface Area to Perimeter Ratio on Charge Storage Capacity of Microelectrodes for Neurostimulation. ECS Meeting Abstracts, 2017, , .	0.0	0
8	(Invited) Chemistry of Robust Neural Interfaces. ECS Meeting Abstracts, 2017, , .	0.0	0
9	Automated and High-Throughput Reactive Accelerated Aging System to Evaluate Performance of Neural Implants. ECS Meeting Abstracts, 2017, , .	0.0	0
10	(Invited) Invasive Cortical Microelectrode Array Longitudinal Performance: Temporal Dynamics of Electrical Impedance Spectroscopy and Multiunit Activity. ECS Meeting Abstracts, 2017, , .	0.0	0
11	Electrical neurostimulation with imbalanced waveform mitigates dissolution of platinum electrodes. Journal of Neural Engineering, 2016, 13, 054001.	1.8	22
12	Cross-hemispheric dopamine projections have functional significance. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6985-6990.	3.3	55
13	Tissue damage thresholds during therapeutic electrical stimulation. Journal of Neural Engineering, 2016, 13, 021001.	1.8	258
14	Real time imaging of peripheral nerve vasculature using optical coherence angiography. , 2016, , .		1
15	Rapid evaluation of the durability of cortical neural implants using accelerated aging with reactive oxygen species. Journal of Neural Engineering, 2015, 12, 026003.	1.8	150
16	Flexible Software Platform for Fast-Scan Cyclic Voltammetry Data Acquisition and Analysis. Analytical Chemistry, 2013, 85, 10344-10353.	3.2	75
17	Brain dopamine and serotonin differ in regulation and its consequences. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11510-11515.	3.3	96
18	Chronically Implanted, Nafion-Coated Ag/AgCl Reference Electrodes for Neurochemical Applications. ACS Chemical Neuroscience, 2011, 2, 658-666.	1.7	57

#	Article	IF	Citations
19	Higher Sensitivity Dopamine Measurements with Faster-Scan Cyclic Voltammetry. Analytical Chemistry, 2011, 83, 3563-3571.	3.2	153
20	In vivo comparison of norepinephrine and dopamine release in rat brain by simultaneous measurements with fastâ€scan cyclic voltammetry. Journal of Neurochemistry, 2011, 119, 932-944.	2.1	120
21	Instrumentation for fast-scan cyclic voltammetry combined with electrophysiology for behavioral experiments in freely moving animals. Review of Scientific Instruments, 2011, 82, 074302.	0.6	54
22	Simultaneous monitoring of dopamine concentration at spatially different brain locations in vivo. Biosensors and Bioelectronics, 2010, 25, 1179-1185.	5.3	80
23	Microfabricated FSCV-compatible microelectrode array for real-time monitoring of heterogeneous dopamine release. Analyst, The, 2010, 135, 1556.	1.7	75
24	Characterization of Local pH Changes in Brain Using Fast-Scan Cyclic Voltammetry with Carbon Microelectrodes. Analytical Chemistry, 2010, 82, 9892-9900.	3.2	107
25	Water Confinement in Hydrophobic Nanopores. Pressure-Induced Wetting and Drying. ACS Nano, 2010, 4, 5069-5075.	7.3	63
26	Carbon Microelectrodes with a Renewable Surface. Analytical Chemistry, 2010, 82, 2020-2028.	3.2	194
27	Simultaneous Decoupled Detection of Dopamine and Oxygen Using Pyrolyzed Carbon Microarrays and Fast-Scan Cyclic Voltammetry. Analytical Chemistry, 2009, 81, 6258-6265.	3.2	81
28	Smart Nanoporous Membranes. ECS Transactions, 2007, 3, 23-29.	0.3	4
29	Hydrothermally shrunk alumina nanopores and their application to DNA sensing. Analyst, The, 2006, 131, 1248.	1.7	49
30	Application of anodized aluminum in fluorescence detection of biological species. Analytical and Bioanalytical Chemistry, 2006, 385, 954-958.	1.9	46
31	Sensing DNA Hybridization via Ionic Conductance through a Nanoporous Electrode. Langmuir, 2005, 21, 4776-4778.	1.6	128