

# Pavel A Takmakov

## List of Publications by Year in descending order

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31  
papers

2,084  
citations

331670

21  
h-index

526287

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. <i>Biomaterials</i> , 2020, 232, 119731.	11.4	56
2	Electrochemical Evaluations of Fractal Microelectrodes for Energy Efficient Neurostimulation. <i>Scientific Reports</i> , 2018, 8, 4375.	3.3	36
3	Neural electrode resilience against dielectric damage may be improved by use of highly doped silicon as a conductive material. <i>Journal of Neuroscience Methods</i> , 2018, 293, 210-225.	2.5	20
4	Public Regulatory Databases as a Source of Insight for Neuromodulation Devices Stimulation Parameters. <i>Neuromodulation</i> , 2018, 21, 117-125.	0.8	17
5	Automated reactive accelerated aging for rapid <i>in vitro</i> evaluation of neural implant performance. <i>Review of Scientific Instruments</i> , 2018, 89, 094301.	1.3	20
6	Electrochemistry of a Robust Neural Interface. <i>Electrochemical Society Interface</i> , 2017, 26, 49-51.	0.4	7
7	(Invited) Effect of Surface Area to Perimeter Ratio on Charge Storage Capacity of Microelectrodes for Neurostimulation. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0
8	(Invited) Chemistry of Robust Neural Interfaces. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0
9	Automated and High-Throughput Reactive Accelerated Aging System to Evaluate Performance of Neural Implants. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0
10	(Invited) Invasive Cortical Microelectrode Array Longitudinal Performance: Temporal Dynamics of Electrical Impedance Spectroscopy and Multiunit Activity. <i>ECS Meeting Abstracts</i> , 2017, , .	0.0	0
11	Electrical neurostimulation with imbalanced waveform mitigates dissolution of platinum electrodes. <i>Journal of Neural Engineering</i> , 2016, 13, 054001.	3.5	22
12	Cross-hemispheric dopamine projections have functional significance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 6985-6990.	7.1	55
13	Tissue damage thresholds during therapeutic electrical stimulation. <i>Journal of Neural Engineering</i> , 2016, 13, 021001.	3.5	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. <i>Journal of Neural Engineering</i> , 2015, 12, 026003.	3.5	150
16	Flexible Software Platform for Fast-Scan Cyclic Voltammetry Data Acquisition and Analysis. <i>Analytical Chemistry</i> , 2013, 85, 10344-10353.	6.5	75
17	Brain dopamine and serotonin differ in regulation and its consequences. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 11510-11515.	7.1	96
18	Chronically Implanted, Nafion-Coated Ag/AgCl Reference Electrodes for Neurochemical Applications. <i>ACS Chemical Neuroscience</i> , 2011, 2, 658-666.	3.5	57

#	ARTICLE	IF	CITATIONS
19	Higher Sensitivity Dopamine Measurements with Faster-Scan Cyclic Voltammetry. <i>Analytical Chemistry</i> , 2011, 83, 3563-3571.	6.5	153
20	<i>In vivo</i> comparison of norepinephrine and dopamine release in rat brain by simultaneous measurements with fast-scan cyclic voltammetry. <i>Journal of Neurochemistry</i> , 2011, 119, 932-944.	3.9	120
21	Instrumentation for fast-scan cyclic voltammetry combined with electrophysiology for behavioral experiments in freely moving animals. <i>Review of Scientific Instruments</i> , 2011, 82, 074302.	1.3	54
22	Simultaneous monitoring of dopamine concentration at spatially different brain locations in vivo. <i>Biosensors and Bioelectronics</i> , 2010, 25, 1179-1185.	10.1	80
23	Microfabricated FSCV-compatible microelectrode array for real-time monitoring of heterogeneous dopamine release. <i>Analyst, The</i> , 2010, 135, 1556.	3.5	75
24	Characterization of Local pH Changes in Brain Using Fast-Scan Cyclic Voltammetry with Carbon Microelectrodes. <i>Analytical Chemistry</i> , 2010, 82, 9892-9900.	6.5	107
25	Water Confinement in Hydrophobic Nanopores. Pressure-Induced Wetting and Drying. <i>ACS Nano</i> , 2010, 4, 5069-5075.	14.6	63
26	Carbon Microelectrodes with a Renewable Surface. <i>Analytical Chemistry</i> , 2010, 82, 2020-2028.	6.5	194
27	Simultaneous Decoupled Detection of Dopamine and Oxygen Using Pyrolyzed Carbon Microarrays and Fast-Scan Cyclic Voltammetry. <i>Analytical Chemistry</i> , 2009, 81, 6258-6265.	6.5	81
28	Smart Nanoporous Membranes. <i>ECS Transactions</i> , 2007, 3, 23-29.	0.5	4
29	Hydrothermally shrunk alumina nanopores and their application to DNA sensing. <i>Analyst, The</i> , 2006, 131, 1248.	3.5	49
30	Application of anodized aluminum in fluorescence detection of biological species. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 385, 954-958.	3.7	46
31	Sensing DNA Hybridization via Ionic Conductance through a Nanoporous Electrode. <i>Langmuir</i> , 2005, 21, 4776-4778.	3.5	128