

# Stephen P Deweerth

## List of Publications by Year in descending order

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42  
papers

929  
citations

623734

14  
h-index

454955

30  
g-index

42  
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42  
docs citations

42  
times ranked

1200  
citing authors

#	ARTICLE	IF	CITATIONS
1	Analyzing the Effects of Parameters for Tremor Modulation via Phase-Locked Electrical Stimulation on a Peripheral Nerve. <i>Journal of Personalized Medicine</i> , 2022, 12, 76.	2.5	2
2	Temporal and spatial dynamics of spinal sensorimotor processing in an intersegmental cutaneous nociceptive reflex. <i>Journal of Neurophysiology</i> , 2019, 122, 616-631.	1.8	4
3	Cutaneous sensory feedback from paw pads affects lateral balance control during split-belt locomotion in the cat. <i>Journal of Experimental Biology</i> , 2019, 222, .	1.7	14
4	Differential cardiovascular responses to cutaneous afferent subtypes in a nociceptive intersegmental spinal reflex. <i>Scientific Reports</i> , 2019, 9, 19049.	3.3	0
5	A Prototype of a Neural, Powered, Transtibial Prosthesis for the Cat: Benchtop Characterization. <i>Frontiers in Neuroscience</i> , 2018, 12, 471.	2.8	7
6	Closed-Loop Characterization of Neuronal Activation Using Electrical Stimulation and Optical Imaging. <i>Processes</i> , 2017, 5, 30.	2.8	3
7	Targeted Stimulation Using Differences in Activation Probability across the Strength-Duration Space. <i>Processes</i> , 2017, 5, 14.	2.8	3
8	Optimization of Stimulation Parameters for Targeted Activation of Multiple Neurons Using Closed-Loop Search Methods. <i>Processes</i> , 2017, 5, 81.	2.8	0
9	A three-dimensional image processing program for accurate, rapid, and semi-automated segmentation of neuronal somata with dense neurite outgrowth. <i>Frontiers in Neuroanatomy</i> , 2015, 9, 87.	1.7	7
10	A PDMS-Based Integrated Stretchable Microelectrode Array (isMEA) for Neural and Muscular Surface Interfacing. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2013, 7, 1-10.	4.0	115
11	Enabling techniques for in vitro studies on mammalian spinal locomotor mechanisms. <i>Frontiers in Bioscience - Landmark</i> , 2012, 17, 2158.	3.0	19
12	A low-cost, easy-fabricating stretchable microneedle-electrode array for intramuscular recording and stimulation. , 2011, , .		3
13	Selective Stimulation of the Spinal Cord Surface Using a Stretchable Microelectrode Array. <i>Frontiers in Neuroengineering</i> , 2011, 4, 5.	4.8	19
14	Passive joint stiffness in the hip and knee increases the energy efficiency of leg swinging. <i>Autonomous Robots</i> , 2010, 29, 119-135.	4.8	12
15	High-Density Stretchable Electronics: Toward an Integrated Multilayer Composite. <i>Advanced Materials</i> , 2010, 22, 4030-4033.	21.0	54
16	An Effective Lift-Off Method for Patterning High-Density Gold Interconnects on an Elastomeric Substrate. <i>Small</i> , 2010, 6, 2847-2852.	10.0	44
17	A PDMS-Based Conical-Well Microelectrode Array for Surface Stimulation and Recording of Neural Tissues. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 2485-2494.	4.2	32
18	A conformable microelectrode array (cMEA) with integrated electronics for peripheral nerve interfacing. , 2010, , .		7

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19	PDMS-based conformable microelectrode arrays with selectable novel 3-D microelectrode geometries for surface stimulation and recording. , 2009, 2009, 1623-6.		9
20	Implementation of integratable PDMS-based conformable microelectrode arrays using a multilayer wiring interconnect technology. , 2009, 2009, 1619-22.		6
21	A retrofitted neural recording system with a novel stimulation IC to monitor early neural responses from a stimulating electrode. Journal of Neuroscience Methods, 2009, 178, 99-102.	2.5	5
22	Muscle surface recording and stimulation using integrated PDMS-based microelectrode arrays: Recording-triggered stimulation for prosthetic purposes. , 2009, , .		5
23	A lithographically-patterned, elastic multi-electrode array for surface stimulation of the spinal cord. Biomedical Microdevices, 2008, 10, 259-269.	2.8	87
24	Stimulation and recording of neural tissue, closing the loop on the artifact. , 2008, , .		1
25	Stimulus-Artifact Elimination in a Multi-Electrode System. IEEE Transactions on Biomedical Circuits and Systems, 2008, 2, 10-21.	4.0	83
26	Novel Nonlinear Elastic Actuators for Passively Controlling Robotic Joint Compliance. Journal of Mechanical Design, Transactions of the ASME, 2007, 129, 406-412.	2.9	86
27	Three-Dimensional Metal Transfer Micromolded Microelectrode Arrays (MEAS) for In-Vitro Brain Slice Recordings. , 2007, , .		12
28	A PDMS-based Elastic Multi-Electrode Array for Spinal Cord Surface Stimulation and its Electrode Modification to Enhance Performance. Materials Research Society Symposia Proceedings, 2007, 1009, 1.	0.1	1
29	Sensory Feedback in a Half-Center Oscillator Model. IEEE Transactions on Biomedical Engineering, 2007, 54, 193-204.	4.2	27
30	A comparative analysis of multi-conductance neuronal models in silico. Biological Cybernetics, 2007, 96, 181-194.	1.3	1
31	A comparison of resonance tuning with positive versus negative sensory feedback. Biological Cybernetics, 2007, 96, 603-614.	1.3	25
32	Two-Dimensional Variation of Bursting Properties in a Silicon-Neuron Half-Center Oscillator. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2006, 14, 281-289.	4.9	15
33	Effects of stance width on control gain in standing balance. , 2006, 2006, 4055-7.		4
34	Effects of stance width on control gain in standing balance. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	1
35	Passive Dynamics of a Hybrid Neuromechanical Joint Incorporating Living Muscle. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
36	Bifurcation of synchronous oscillations into torus in a system of two reciprocally inhibitory silicon neurons: Experimental observation and modeling. Chaos, 2004, 14, 995-1003.	2.5	4

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37	A Multiconductance Silicon Neuron With Biologically Matched Dynamics. IEEE Transactions on Biomedical Engineering, 2004, 51, 342-354.	4.2	106
38	A Tunable Voltage Correlator. Analog Integrated Circuits and Signal Processing, 2004, 39, 89-94.	1.4	8
39	A bifurcation of a synchronous oscillations into a torus in a system of two mutually inhibitory aVLSI neurons: experimental observation. Neurocomputing, 2003, 52-54, 691-698.	5.9	3
40	Modeling Alternation to Synchrony with Inhibitory Coupling: A Neuromorphic VLSI Approach. Neural Computation, 2000, 12, 2259-2278.	2.2	23
41	Converting spatially encoded sensory information to motor signals using analog VLSI circuits. Autonomous Robots, 1995, 2, 93-104.	4.8	4
42	Analog VLSI circuits for stimulus localization and centroid computation. International Journal of Computer Vision, 1992, 8, 191-202.	15.6	68