

Electrical stimulation of excitable tissue: design of effic

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Holey new fibers. , 0, , .		2
2	Sputtered iridium oxide films (SIROFs) for low-impedance neural stimulation and recording electrodes. , 2004, 2004, 4153-6.		74
3	Electrical stimulation of excitable tissue: design of efficacious and safe protocols. Journal of Neuroscience Methods, 2005, 141, 171-198.	2.5	1,738
4	Safety considerations for deep brain stimulation: review and analysis. Expert Review of Medical Devices, 2005, 2, 409-420.	2.8	70
5	In-Vitro Testing of Simultaneous Charge Injection and Recovery in a Retinal Neuroprosthesis. , 2005, 2005, 7612-5.		11
6	An FPGA-Based Vision Prosthesis Prototype: Implementing an Efficient Multiplexing Method for Addressing Electrodes. , 2005, 2005, 5268-71.		6
7	Tissue and electrode capacitance reduce neural activation volumes during deep brain stimulation. Clinical Neurophysiology, 2005, 116, 2490-2500.	1.5	283
8	Microelectronic Retinal Prosthesis: I. A Neurostimulator for the Concurrent Activation of Multiple Electrodes. , 2006, 2006, 4647-50.		4
9	Bio-heat transfer model of deep brain stimulation-induced temperature changes. Journal of Neural Engineering, 2006, 3, 306-315.	3.5	128
10	Design Of A Multichannel Asic For Large Scale Spatio-temporal Distributed Stimulation Of Neural Tissue. , 0, , .		1
11	Switched-capacitor based implantable low-power wireless microstimulating systems. , 0, , .		35
12	Characterization of Electrical Stimulation Electrodes for Cardiac Tissue Engineering. , 2006, 2006, 845-8.		28
13	Sources and effects of electrode impedance during deep brain stimulation. Clinical Neurophysiology, 2006, 117, 447-454.	1.5	315
14	Thresholds for activation of rabbit retinal ganglion cells with a subretinal electrode. Experimental Eye Research, 2006, 83, 367-373.	2.6	109
15	Electrical Stimulation of Mammalian Retinal Ganglion Cells With Multielectrode Arrays. Journal of Neurophysiology, 2006, 95, 3311-3327.	1.8	331
16	The Design and Testing of an Epi-Retinal Vision Prosthesis Neurostimulator Capable of Concurrent Parallel Stimulation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
17	The Design and Testing of an Epi-Retinal Vision Prosthesis Neurostimulator Capable of Concurrent Parallel Stimulation. , 2006, 2006, 4700-9.		10
18	Microelectronic Retinal Prosthesis: I. A Neurostimulator for the Concurrent Activation of Multiple Electrodes. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0

#	ARTICLE	IF	CITATIONS
19	Mechanisms of Electrode Induced Injury. Part 1: Theory. American Journal of Electroneurodiagnostic Technology, 2006, 46, 315-342.	0.2	38
20	Neural Stimulation with a Carbon Nanotube Microelectrode Array. Nano Letters, 2006, 6, 2043-2048.	9.1	378
21	Intraoperative Motor Evoked Potential Monitoring: Overview and Update. Journal of Clinical Monitoring and Computing, 2006, 20, 347-377.	1.6	275
22	Rational modulation of neuronal processing with applied electric fields. , 2006, 2006, 1616-9.		24
23	Microelectronic Retinal Prosthesis: III. A New Method for Fabrication of High-Density Hermetic Feedthroughs. , 2006, 2006, 1638-41.		10
24	High frequency electrical conduction block of the pudendal nerve. Journal of Neural Engineering, 2006, 3, 180-187.	3.5	104
25	Finite Element Analysis of Planar Micromachined Silicon Electrodes for Cortical Stimulation. , 2006, , .		0
26	The influence of electrolyte composition on their vitrocharge-injection limits of activated iridium oxide (AIROF) stimulation electrodes. Journal of Neural Engineering, 2007, 4, 79-86.	3.5	78
27	Somatosensory Feedback for Brain-Machine Interfaces: Perceptual Model and Experiments in Rat Whisker Somatosensory Cortex. , 2007, , .		1
28	Biomimetic Tactile Sensor for Control of Grip. , 2007, , .		15
29	A Real-Time Closed-Loop Setup for Hybrid Neural Networks. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 3004-7.	0.5	22
30	Practical Aspects of Cardiac Tissue Engineering With Electrical Stimulation. Methods in Molecular Medicine, 2007, 140, 291-307.	0.8	38
31	Contributions to the study of optimal biphasic pulse shapes for functional electric stimulation: An analytical approach using the excitation functional. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2440-3.	0.5	9
32	Electrochemical polymerization of conducting polymers in living neural tissue. Journal of Neural Engineering, 2007, 4, L6-L13.	3.5	172
33	Trimodal nanoelectrode array for precise deep brain stimulation: prospects of a new technology based on carbon nanofiber arrays. , 2007, 97, 537-545.		23
34	A New Rational Algebraic Approach to Find Exact Analytical Solutions to a (2+1)-Dimensional System. Communications in Theoretical Physics, 2007, 48, 801-810.	2.5	0
35	Preliminary Design and Analysis of ITER In-Wall Shielding. Plasma Science and Technology, 2007, 9, 94-100.	1.5	7
36	Simulations of Reversed Shear Configuration in EAST. Plasma Science and Technology, 2007, 9, 139-142.	1.5	0

#	ARTICLE	IF	CITATIONS
37	Suppression of axonal conduction by sinusoidal stimulation in rat hippocampus <i>in vitro</i> . Journal of Neural Engineering, 2007, 4, 1-16.	3.5	649
38	Electrical stimulation protocols for hippocampal synaptic plasticity and neuronal hyper-excitability: Are they effective or relevant?. Experimental Neurology, 2007, 204, 1-13.	4.1	144
39	Transcranial electric stimulation for intraoperative motor evoked potential monitoring: Stimulation parameters and electrode montages. Clinical Neurophysiology, 2007, 118, 1586-1595.	1.5	151
40	A 2 μ W 100 nV/rHz Chopper-Stabilized Instrumentation Amplifier for Chronic Measurement of Neural Field Potentials. IEEE Journal of Solid-State Circuits, 2007, 42, 2934-2945.	5.4	360
41	A 232-Channel Epiretinal Stimulator ASIC. IEEE Journal of Solid-State Circuits, 2007, 42, 2946-2959.	5.4	204
42	Responses of ganglion cells to repetitive electrical stimulation of the retina. Journal of Neural Engineering, 2007, 4, S1-S6.	3.5	113
43	A Wide Range Charge-Balancing Circuit using Floating-Gate Transistors. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 5696-9.	0.5	1
45	Fabrication of multi-layer, high-density micro-electrode arrays for neural stimulation and bio-signal recording. , 2007, , .		23
46	An Experimental Study of Voltage, Current, and Charge Controlled Stimulation Front-End Circuitry. , 2007, , .		45
47	Operative Neuromodulation. , 2007, , .		15
48	Design of a Transcutaneous Electrical Stimulator to Avoid the Postoperative Intestinal Effects. , 2007, , .		0
49	Dedicated electronics for electrical stimulation and EEG recording using the same electrodes: application to the automatic control of epileptic seizures by neurostimulation. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2007, , .	0.0	2
50	A Direct Visual and Motor Neural Interface Demonstration in a Rat. , 2007, , .		0
51	Fitting Improvement Using a New Electrical Circuit Model for the Electrode-Electrolyte Interface. , 2007, , .		14
52	Stimulation of the Nucleus Basalis of Meynert Produces an Increase in the Extracellular Release of Nerve Growth Factor in the Rat Cerebral Cortex. Journal of Physiological Sciences, 2007, 57, 383-387.	2.1	28
53	Modulation of motoneuronal firing behavior after spinal cord injury using intraspinal microstimulation current pulses: a modeling study. Journal of Applied Physiology, 2007, 103, 276-286.	2.5	24
54	Performance of ultra-high-density microelectrode arrays. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 576, 215-219.	1.6	10
55	Controlling seizures is not controlling epilepsy: A parametric study of deep brain stimulation for epilepsy. Neurobiology of Disease, 2007, 27, 292-300.	4.4	66

#	ARTICLE	IF	CITATIONS
56	Retinal Neurostimulator for a Multifocal Vision Prosthesis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2007, 15, 425-434.	4.9	75
57	Dynamics of the Subthalamo-pallidal Complex in Parkinson's Disease During Deep Brain Stimulation. Journal of Biological Physics, 2008, 34, 251-266.	1.5	32
58	Transcranial direct current stimulation for major depression: A general system for quantifying transcranial electrotherapy dosage. Current Treatment Options in Neurology, 2008, 10, 377-385.	1.8	56
59	An integrated multichannel waveform generator for large-scale spatio-temporal stimulation of neural tissue. Analog Integrated Circuits and Signal Processing, 2008, 55, 239-248.	1.4	27
60	Continuous high-frequency stimulation in freely moving rats: Development of an implantable microstimulation system. Journal of Neuroscience Methods, 2008, 167, 278-291.	2.5	46
61	Characterization of flexible ECoG electrode arrays for chronic recording in awake rats. Journal of Neuroscience Methods, 2008, 173, 279-285.	2.5	99
62	Neural Stimulation and Recording Electrodes. Annual Review of Biomedical Engineering, 2008, 10, 275-309.	12.3	1,797
63	Effects of high-frequency stimulation on epileptiform activity in vitro: ON/OFF control paradigm. Epilepsia, 2008, 49, 1586-1593.	5.1	23
64	Electrical Stimulation of the Proprioceptive Cortex (Area 3a) Used to Instruct a Behaving Monkey. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 32-36.	4.9	111
65	Effects of glucose and glutamine concentration in the formulation of the artificial cerebrospinal fluid (ACSF). Brain Research, 2008, 1218, 77-86.	2.2	21
66	Aligned nanowire growth using lithography-assisted bonding of a polycarbonate template for neural probe electrodes. Nanotechnology, 2008, 19, 025304.	2.6	42
67	Neural interfaces at the nanoscale. Nanomedicine, 2008, 3, 823-830.	3.3	54
68	Improved bladder emptying in urinary retention by electrical stimulation of pudendal afferents. Journal of Neural Engineering, 2008, 5, 144-154.	3.5	44
69	Nociceptive contribution to the evoked potentials after painful intramuscular electrical stimulation. Neuroscience Research, 2008, 60, 170-175.	1.9	3
70	The influence of reactivity of the electrode-brain interface on the crossing electric current in therapeutic deep brain stimulation. Neuroscience, 2008, 156, 597-606.	2.3	55
71	Clinical Applications of Intraspinal Microstimulation. Proceedings of the IEEE, 2008, 96, 1120-1128.	21.3	7
72	Deformable skin design to enhance response of a biomimetic tactile sensor. , 2008, , .		20
73	Practical considerations for the use of a Howland current source for neuro-stimulation. , 2008, , .		18

#	ARTICLE	IF	CITATIONS
74	Transcranial current stimulation focality using disc and ring electrode configurations: FEM analysis. Journal of Neural Engineering, 2008, 5, 163-174.	3.5	282
75	Design of electrical stimulation bioreactors for cardiac tissue engineering. , 2008, 2008, 3594-7.		23
76	Stimulus-Artifact Elimination in a Multi-Electrode System. IEEE Transactions on Biomedical Circuits and Systems, 2008, 2, 10-21.	4.0	83
77	A general adaptive charge-balancing stimulator. , 2008, , .		2
78	Extracellular Stimulation of Mammalian Neurons Through Repetitive Activation of Na ⁺ Channels by Weak Capacitive Currents on a Silicon Chip. Journal of Neurophysiology, 2008, 100, 346-357.	1.8	101
79	Charge recovery during concurrent stimulation for a vision prosthesis. , 2008, 2008, 1797-800.		2
80	Biomimetic Tactile Sensor Array. Advanced Robotics, 2008, 22, 829-849.	1.8	305
81	Implant electronics for intraocular epiretinal neuro-stimulators. , 2008, , .		9
82	A novel safety system concept and implementation for implantable stimulators: A universal DC tissue leakage current detector. , 2008, , .		4
83	Efficacy of supra-choroidal, bipolar, electrical stimulation in a vision prosthesis. , 2008, 2008, 1789-92.		7
84	Safety issues during surgical monitoring. Handbook of Clinical Neurophysiology, 2008, 8, 882-898.	0.0	12
85	Electrotonic remodeling following myocardial infarction in dogs susceptible and resistant to sudden cardiac death. Journal of Applied Physiology, 2008, 104, 386-393.	2.5	11
86	High Temperature Transistor and Thyristor Developed. , 2009, , .		0
87	A measurement set-up to determine the charge injection capacity of neural microelectrodes. IFMBE Proceedings, 2009, , 162-165.	0.3	5
88	Implantable Neural Stimulators. , 2009, , 215-228.		8
89	Axonal Sodium-Channel Bands Shape the Response to Electric Stimulation in Retinal Ganglion Cells. Journal of Neurophysiology, 2009, 101, 1972-1987.	1.8	195
90	Principles of Electric Field Generation for Stimulation of the Central Nervous System. , 2009, , 145-155.		4
91	Poly(3,4-ethylene dioxythiophene) (PEDOT) as a micro-neural interface material for electrostimulation. Frontiers in Neuroengineering, 2009, 2, 7.	4.8	158

#	ARTICLE	IF	CITATIONS
92	Form-function relations in cone-tipped stimulating microelectrodes. Frontiers in Neuroengineering, 2009, 2, 13.	4.8	6
93	Analysis of high-perimeter planar electrodes for efficient neural stimulation. Frontiers in Neuroengineering, 2009, 2, 15.	4.8	45
94	Penetrating microelectrode arrays with low-impedance sputtered iridium oxide electrode coatings. , 2009, 2009, 7147-50.		5
95	Electrode structures for acquisition and neural stimulation controlling the cardiovascular system. , 2009, 2009, 5478-81.		3
96	Extracellular stimulation of mouse retinal ganglion cells with non-rectangular voltage-controlled waveforms. , 2009, 2009, 642-5.		7
97	Performance of laser fabricated stimulating electrode arrays for a retinal prosthesis in saline. , 2009, , .		7
98	Mechanisms determining safety and performance of brain stimulating electrodes. , 2009, 2009, 689-92.		0
99	Electronic Interfacing with Living Cells. , 2009, 117, 155-178.		2
100	Auditory Midbrain Implant: A Review. Trends in Amplification, 2009, 13, 149-180.	2.4	70
101	Seizure entrainment with polarizing low-frequency electric fields in a chronic animal epilepsy model. Journal of Neural Engineering, 2009, 6, 046009.	3.5	23
102	A CMOS retinal neurostimulator capable of focussed, simultaneous stimulation. Journal of Neural Engineering, 2009, 6, 035006.	3.5	44
103	A SEARCH FOR RADIO SUPERNOVA REMNANTS IN FOUR IRREGULAR GALAXIES. Astronomical Journal, 2009, 137, 3869-3883.	4.7	27
104	Dependence of Conductance of Corrugated Graphene Quantum Dot on Geometrical Features. Communications in Theoretical Physics, 2009, 52, 960-964.	2.5	2
105	Recovery of control of posture and locomotion after a spinal cord injury: solutions staring us in the face. Progress in Brain Research, 2009, 175, 393-418.	1.4	66
106	Activation of ganglion cells in wild-type and <i>rd1</i> mouse retinas with monophasic and biphasic current pulses. Journal of Neural Engineering, 2009, 6, 035004.	3.5	49
107	The Electrocorticogram Signal Can Be Modulated With Deep Brain Stimulation of the Subthalamic Nucleus in the Hemiparkinsonian Rat. Journal of Neurophysiology, 2009, 102, 1811-1820.	1.8	32
108	Selective and Graded Recruitment of Cat Hamstring Muscles With Intrafascicular Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2009, 17, 545-552.	4.9	17
109	Effect of Bipolar Cuff Electrode Design on Block Thresholds in High-Frequency Electrical Neural Conduction Block. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2009, 17, 469-477.	4.9	42

#	ARTICLE	IF	CITATIONS
110	Metabolic Prosthesis for Oxygenation of Ischemic Tissue. IEEE Transactions on Biomedical Engineering, 2009, 56, 528-531.	4.2	5
111	Microchannel Electrodes for Recording and Stimulation: In Vitro Evaluation. IEEE Transactions on Biomedical Engineering, 2009, 56, 1524-1534.	4.2	39
112	Electrical stimulation of human embryonic stem cells: Cardiac differentiation and the generation of reactive oxygen species. Experimental Cell Research, 2009, 315, 3611-3619.	2.6	234
113	Cyri-precise head model of transcranial direct current stimulation: Improved spatial focality using a ring electrode versus conventional rectangular pad. Brain Stimulation, 2009, 2, 201-207.e1.	1.6	1,038
114	Nanomaterials for Neural Interfaces. Advanced Materials, 2009, 21, 3970-4004.	21.0	460
115	Interfacing Conducting Polymer Nanotubes with the Central Nervous System: Chronic Neural Recording using Poly(3,4-ethylenedioxythiophene) Nanotubes. Advanced Materials, 2009, 21, 3764-3770.	21.0	246
116	Sputtered iridium oxide films for neural stimulation electrodes. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 89B, 353-361.	3.4	155
117	High efficient electrical stimulation of hippocampal slices with vertically aligned carbon nanofiber microbrush array. Biomedical Microdevices, 2009, 11, 801-808.	2.8	49
118	Current-Controlled Electrical Point-Source Stimulation of Embryonic Stem Cells. Cellular and Molecular Bioengineering, 2009, 2, 625-635.	2.1	30
119	Review article: gastric electrical stimulation for gastroparesis – physiological foundations, technical aspects and clinical implications. Alimentary Pharmacology and Therapeutics, 2009, 30, 681-694.	3.7	60
120	Anodically electrodeposited iridium oxide films microelectrodes for neural microstimulation and recording. Sensors and Actuators B: Chemical, 2009, 137, 334-339.	7.8	83
121	A method for chronic stimulation of cortical organotypic cultures using implanted electrodes. Journal of Neuroscience Methods, 2009, 176, 136-143.	2.5	9
122	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
123	Electrochemical characterization of multi-walled carbon nanotube coated electrodes for biological applications. Carbon, 2009, 47, 884-893.	10.3	52
124	PEDOT coated microelectrode arrays for chronic neural recording and stimulation. , 2009, , .		14
125	Experimental and theoretical characterization of the voltage distribution generated by deep brain stimulation. Experimental Neurology, 2009, 216, 166-176.	4.1	153
126	Direct Activation of Sparse, Distributed Populations of Cortical Neurons by Electrical Microstimulation. Neuron, 2009, 63, 508-522.	8.1	529
127	Advances in the Application of Technology to Epilepsy: The CIMIT/NIO Epilepsy Innovation Summit. Epilepsy and Behavior, 2009, 16, 3-46.	1.7	41

#	ARTICLE	IF	CITATIONS
128	Deep brain stimulation in neurological diseases and experimental models: From molecule to complex behavior. Progress in Neurobiology, 2009, 89, 79-123.	5.7	135
130	Stimulation Technology in Functional Neurosurgery. , 2009, , 1401-1425.		2
131	Layered Carbon Nanotube-Polyelectrolyte Electrodes Outperform Traditional Neural Interface Materials. Nano Letters, 2009, 9, 4012-4018.	9.1	116
132	Implantable Neural Prostheses 1. Biological and Medical Physics Series, 2009, , .	0.4	17
133	Direct activation of retinal ganglion cells with subretinal stimulation. , 2009, 2009, 618-21.		6
134	Integrated circuit amplifiers for multi-electrode intracortical recording. Journal of Neural Engineering, 2009, 6, 012001.	3.5	134
135	A ±9 V fully integrated CMOS electrode driver for high-impedance microstimulation. , 2009, , .		15
136	A real-time system for multisite stimulation on living neural networks. , 2009, , .		1
137	An active approach for charge balancing in functional electrical stimulation. , 2009, , .		1
138	Electrode design for high frequency block: Effect of bipolar separation on block thresholds and the onset response. , 2009, 2009, 654-7.		15
139	Charge Storage: Stability measures in implantable electrodes. , 2009, 2009, 658-61.		8
140	Encapsulation and Evaluation of a MEMS-Based Flexible Microelectrode Array for Acute In-Vivo Experiment. , 2009, , .		0
141	High frequency stimulation can block axonal conduction. Experimental Neurology, 2009, 220, 57-70.	4.1	138
142	A small, light-weight, low-power, multichannel wireless neural recording microsystem. , 2009, 2009, 5413-6.		2
143	Iridium oxide microelectrode arrays for in-vitro stimulation of individual rat neurons from dissociated cultures. Frontiers in Neuroengineering, 2009, 2, 16.	4.8	39
144	Novel method for a flexible double-sided microelectrode fabrication process. , 2009, , .		4
146	Potassium Ion Sensing With Nanowire Electrodes on a Flexible Substrate for Early Detection of Myocardial Ischemia. Journal of Nanotechnology in Engineering and Medicine, 2010, 1, .	0.8	3
147	Electrodeposited polypyrrole/carbon nanotubes composite films electrodes for neural interfaces. Biomaterials, 2010, 31, 5169-5181.	11.4	171

#	ARTICLE	IF	CITATIONS
148	The design and preparation of a flexible bio-chip for use as a visual prosthesis, and evaluation of its biological features. Cell and Tissue Research, 2010, 340, 421-426.	2.9	6
149	Vestibulo-Ocular Reflex Responses to a Multichannel Vestibular Prosthesis Incorporating a 3D Coordinate Transformation for Correction of Misalignment. JARO - Journal of the Association for Research in Otolaryngology, 2010, 11, 367-381.	1.8	65
150	The Effects of Concentric Ring Electrode Electrical Stimulation on Rat Skin. Annals of Biomedical Engineering, 2010, 38, 1111-1118.	2.5	19
151	Electrical Impedance of Stainless Steel Needle Electrodes. Annals of Biomedical Engineering, 2010, 38, 2371-2382.	2.5	25
152	Monitoring of motor and somatosensory systems in a 26-week pregnant woman. Acta Neurochirurgica, 2010, 152, 1231-1234.	1.7	11
153	Experimental validation of the influence of white matter anisotropy on the intracranial EEG forward solution. Journal of Computational Neuroscience, 2010, 29, 371-387.	1.0	52
154	Fully Wireless Implantable Cardiovascular Pressure Monitor Integrated with a Medical Stent. IEEE Transactions on Biomedical Engineering, 2010, 57, 1487-1496.	4.2	185
155	Contribution of Oxygen Reduction to Charge Injection on Platinum and Sputtered Iridium Oxide Neural Stimulation Electrodes. IEEE Transactions on Biomedical Engineering, 2010, 57, 2313-2321.	4.2	30
156	Development of Closed-Loop Neural Interface Technology in a Rat Model: Combining Motor Cortex Operant Conditioning With Visual Cortex Microstimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 117-126.	4.9	25
157	Effect of Nerve Cuff Electrode Geometry on Onset Response Firing in High-Frequency Nerve Conduction Block. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 658-665.	4.9	42
158	Biologicalâ€“Machine Systems Integration: Engineering the Neural Interface. Proceedings of the IEEE, 2010, 98, 418-431.	21.3	20
159	Muscleâ€“selective block using intrafascicular highâ€“frequency alternating current. Muscle and Nerve, 2010, 42, 339-347.	2.2	20
160	Short and long term biocompatibility of NeuroProbes silicon probes. Journal of Neuroscience Methods, 2010, 189, 216-229.	2.5	55
161	Electrodes for high-definition transcutaneous DC stimulation for applications in drug delivery and electrotherapy, including tDCS. Journal of Neuroscience Methods, 2010, 190, 188-197.	2.5	213
162	Generalized framework for stimulus artifact removal. Journal of Neuroscience Methods, 2010, 191, 45-59.	2.5	68
163	Alteration of GABAergic neurotransmission by pulsed infrared laser stimulation. Journal of Neuroscience Methods, 2010, 192, 110-114.	2.5	33
164	Effects of small pulsed nanocurrents on cell viability in vitro and in vivo: Implications for biomedical electrodes. Biomaterials, 2010, 31, 8666-8673.	11.4	3
165	Applications of biological pores in nanomedicine, sensing, and nanoelectronics. Current Opinion in Biotechnology, 2010, 21, 439-476.	6.6	298

#	ARTICLE	IF	CITATIONS
166	Investigation of the Relationship Between Stimulus Parameters and a Human Muscle Contraction Force During Stimulation of the Gastrocnemius Muscle. <i>Artificial Organs</i> , 2010, 34, 126-135.	1.9	13
167	Optogenetic control of heart muscle in vitro and in vivo. <i>Nature Methods</i> , 2010, 7, 897-900.	19.0	412
168	Improving impedance of implantable microwire multi-electrode arrays by ultrasonic electroplating of durable platinum black. <i>Frontiers in Neuroengineering</i> , 2010, 3, 5.	4.8	85
169	Closed-loop, open-source electrophysiology. <i>Frontiers in Neuroscience</i> , 2010, 4, .	2.8	42
170	Studying Network Mechanisms Using Intracranial Stimulation in Epileptic Patients. <i>Frontiers in Systems Neuroscience</i> , 2010, 4, 148.	2.5	71
171	Local glutamate release in the rat ventral lateral thalamus evoked by high-frequency stimulation. <i>Journal of Neural Engineering</i> , 2010, 7, 026009.	3.5	33
172	Evaluation of novel stimulus waveforms for deep brain stimulation. <i>Journal of Neural Engineering</i> , 2010, 7, 066008.	3.5	128
173	Electroconvulsive Therapy Stimulus Parameters. <i>Journal of ECT</i> , 2010, 26, 159-174.	0.6	163
174	The scalars from the topcolor scenario and the spin correlations of the top pair production at the LHC. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 2010, 37, 075016.	3.6	6
175	DBS-relevant electric fields increase hydraulic conductivity of <i>in vitro</i> endothelial monolayers. <i>Journal of Neural Engineering</i> , 2010, 7, 016005.	3.5	43
176	Charge and energy minimization in electrical/magnetic stimulation of nervous tissue. <i>Journal of Neural Engineering</i> , 2010, 7, 046004.	3.5	17
177	Intrafascicular thin-film multichannel electrodes for sensory feedback: Evidences on a human amputee. , 2010, 2010, 1800-3.		11
178	Modeling of microcavity electrodes for medical implants. , 2010, 2010, 1515-8.		1
179	Using reciprocal derivative chronopotentiometry as a technique to determine safe charge injection limits of electrodes used for neural stimulation. , 2010, 2010, 2943-6.		0
180	A novel energy-efficient stimuli generator for very-high impedance intracortical microstimulation. , 2010, , .		2
181	Current-limited passive charge recovery for implantable neuro-stimulators: Power savings, modelling and characterisation. , 2010, , .		2
182	The excitation functional for magnetic stimulation of fibers. , 2010, 2010, 4829-33.		2
183	Unilateral neuromodulation of the ventromedial hypothalamus of the rat through deep brain stimulation. <i>Journal of Neural Engineering</i> , 2010, 7, 036006.	3.5	11

#	ARTICLE	IF	CITATIONS
184	Frequency- and amplitude-transitioned waveforms mitigate the onset response in high-frequency nerve block. Journal of Neural Engineering, 2010, 7, 066003.	3.5	43
185	Empirical study of unipolar and bipolar configurations using high resolution single multi-walled carbon nanotube electrodes for electrophysiological probing of electrically excitable cells. Nanotechnology, 2010, 21, 125101.	2.6	11
186	Motor Evoked Potentials in Thoracoabdominal Aortic Surgery: CON. Cardiology Clinics, 2010, 28, 361-368.	2.2	24
187	A Miniature-Implantable RF-Wireless Active Glaucoma Intraocular Pressure Monitor. IEEE Transactions on Biomedical Circuits and Systems, 2010, 4, 340-349.	4.0	179
188	Surface-modified microelectrode array with flake nanostructure for neural recording and stimulation. Nanotechnology, 2010, 21, 085303.	2.6	76
189	Nanoporous Pt Microelectrode for Neural Stimulation and Recording: In Vitro Characterization. Journal of Physical Chemistry C, 2010, 114, 8721-8726.	3.1	65
190	A 64 Channel Programmable Closed-Loop Neurostimulator With 8 Channel Neural Amplifier and Logarithmic ADC. IEEE Journal of Solid-State Circuits, 2010, 45, 1935-1945.	5.4	121
191	The safety of transcranial magnetic stimulation with deep brain stimulation instruments. Parkinsonism and Related Disorders, 2010, 16, 127-131.	2.2	21
192	Toward rational design of electrical stimulation strategies for epilepsy control. Epilepsy and Behavior, 2010, 17, 6-22.	1.7	126
193	Chronic vagus nerve stimulation decreased weight gain, food consumption and sweet craving in adult obese minipigs. Appetite, 2010, 55, 245-252.	3.7	103
194	Development of bioactive conducting polymers for neural interfaces. Expert Review of Medical Devices, 2010, 7, 35-49.	2.8	64
195	An Active Approach for Charge Balancing in Functional Electrical Stimulation. IEEE Transactions on Biomedical Circuits and Systems, 2010, 4, 162-170.	4.0	143
196	Towards a Switched-Capacitor based Stimulator for efficient deep-brain stimulation. , 2010, 2010, 2927-30.		23
197	Implantable Neural Prostheses 2. Biological and Medical Physics Series, 2010, , .	0.4	57
198	Long-Term, Multisite, Parallel, In-Cell Recording and Stimulation by an Array of Extracellular Microelectrodes. Journal of Neurophysiology, 2010, 104, 559-568.	1.8	112
199	Intraoperative electrical stimulation in awake craniotomy: methodological aspects of current practice. Neurosurgical Focus, 2010, 28, E7.	2.3	296
200	CMOS based 16-channel neural/muscular stimulation system with arbitrary waveform and active charge balancing circuit. , 2011, , .		4
201	Novel neural interface for modulation of neuronal activity based on millimeter wave exposure. , 2011, , .		1

#	ARTICLE	IF	CITATIONS
202	Nerve lesioning with direct current. , 2011, 2011, 5790-3.		0
203	Superior Electrochemical Performance of Carbon Nanotubes Directly Grown on Sharp Microelectrodes. ACS Nano, 2011, 5, 2206-2214.	14.6	70
204	Coulometric Detection of Irreversible Electrochemical Reactions Occurring at Pt Microelectrodes Used for Neural Stimulation. Analytical Chemistry, 2011, 83, 4012-4022.	6.5	25
205	Multilayered Polypyrrole-Coated Carbon Nanotubes To Improve Functional Stability and Electrical Properties of Neural Electrodes. Journal of Physical Chemistry C, 2011, 115, 5492-5499.	3.1	36
206	Neural Interfaces for Implanted Stimulators. , 2011, , 749-766.		5
207	Electrical Stimulation for Epilepsy: Experimental Approaches. Neurosurgery Clinics of North America, 2011, 22, 425-442.	1.7	32
208	An Introduction to In Vitro Slice Approaches for the Study of Neuronal Circuitry. Neuromethods, 2011, , 103-125.	0.3	4
209	Stem Cells & Regenerative Medicine. Pancreatic Islet Biology, 2011, , .	0.3	6
210	Recruitment and blocking properties of the CardioFit stimulation lead. Journal of Neural Engineering, 2011, 8, 034004.	3.5	39
212	The use of motor evoked potential monitoring during cerebral aneurysm surgery to predict pure motor deficits due to subcortical ischemia. Clinical Neurophysiology, 2011, 122, 648-655.	1.5	96
214	Retinal Prostheses: Current Clinical Results and Future Needs. Ophthalmology, 2011, 118, 2227-2237.	5.2	182
215	Electrodeposition and Characterization of Thin-Film Platinum-Iridium Alloys for Biological Interfaces. Journal of the Electrochemical Society, 2011, 158, D269.	2.9	66
216	The functional consequences of chronic, physiologically effective intracortical microstimulation. Progress in Brain Research, 2011, 194, 145-165.	1.4	40
217	Power saving design techniques for implantable neuro-stimulators. , 2011, , .		3
218	Electroactive Polymeric Biomaterials. , 2011, , 547-561.		5
219	An Implantable Optical Stimulation Delivery System for Actuating an Excitable Biosubstrate. IEEE Journal of Solid-State Circuits, 2011, 46, 321-332.	5.4	19
220	Exponential Current Pulse Generation for Efficient Very High-Impedance Multisite Stimulation. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 30-38.	4.0	58
221	Electronics. , 2011, , 213-251.		2

#	ARTICLE	IF	CITATIONS
222	Implantable Electrodes with Carbon Nanotube Coatings. , 0, , .		4
223	Estimula��o encef�lica profunda �� Uma atualiza��o. Brazilian Neurosurgery, 2011, 30, 169-177.	0.1	0
224	Potencial de a��o: do est�mulo � adapta��o neural. Fisioterapia Em Movimento, 2011, 24, 535-547.	0.1	8
225	Prospects for Neuroprosthetics: Flexible Microelectrode Arrays with Polymer Conductors. , 2011, , .		2
226	The Electrode �� Materials and Configurations. , 2011, , 107-152.		4
227	The Electrode �� Principles of the Neural Interface. , 2011, , 153-168.		0
228	Selective Stimulation of the Spinal Cord Surface Using a Stretchable Microelectrode Array. Frontiers in Neuroengineering, 2011, 4, 5.	4.8	19
229	Modified Pulse Shapes for Effective Neural Stimulation. Frontiers in Neuroengineering, 2011, 4, 9.	4.8	69
230	The Vestibular Implant: Quo Vadis?. Frontiers in Neurology, 2011, 2, 47.	2.4	33
231	Intensity Coding in Electric Hearing: Effects of Electrode Configurations and Stimulation Waveforms. Ear and Hearing, 2011, 32, 679-689.	2.1	13
232	Electrode Positioning and Montage in Transcranial Direct Current Stimulation. Journal of Visualized Experiments, 2011, , .	0.3	205
233	A Voltage-Controlled Capacitive Discharge Method for Electrical Activation of Peripheral Nerves. Neuromodulation, 2011, 14, 493-500.	0.8	7
234	Separated interface nerve electrode prevents direct current induced nerve damage. Journal of Neuroscience Methods, 2011, 201, 173-176.	2.5	31
235	Effects of Biphasic Current Pulse Frequency, Amplitude, Duration, and Interphase Gap on Eye Movement Responses to Prosthetic Electrical Stimulation of the Vestibular Nerve. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 84-94.	4.9	82
236	In Vitro and In Vivo Evaluation of PEDOT Microelectrodes for Neural Stimulation and Recording. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 307-316.	4.9	258
237	Resolution of the Epiretinal Prosthesis is not Limited by Electrode Size. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 436-442.	4.9	89
238	Carbon Nanotube Yarns for Deep Brain Stimulation Electrode. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 612-616.	4.9	28
239	Semiconductor Nanomembrane Tubes: Three-Dimensional Confinement for Controlled Neurite Outgrowth. ACS Nano, 2011, 5, 2447-2457.	14.6	85

#	ARTICLE	IF	CITATIONS
240	Protein adsorption and peroxidation of rat retinas under stimulation of a neural probe coated with polyaniline. <i>Acta Biomaterialia</i> , 2011, 7, 3738-3745.	8.3	37
241	Histopathology of the stimulated Vagus nerve: primum non nocere. <i>Heart Failure Reviews</i> , 2011, 16, 163-169.	3.9	13
242	Parylene-based implantable Pt-black coated flexible 3-D hemispherical microelectrode arrays for improved neural interfaces. <i>Microsystem Technologies</i> , 2011, 17, 437-442.	2.0	39
243	In-vitro and in-vivo electrical characteristics of a penetrating microelectrode array for optic nerve electrical stimulation. <i>Journal of Shanghai Jiaotong University (Science)</i> , 2011, 16, 614-619.	0.9	1
244	Conduction block of whole nerve without onset firing using combined high frequency and direct current. <i>Medical and Biological Engineering and Computing</i> , 2011, 49, 241-251.	2.8	49
245	Spinal cord direct current stimulation: finite element analysis of the electric field and current density. <i>Medical and Biological Engineering and Computing</i> , 2011, 49, 417-429.	2.8	52
246	Simulation of epiretinal prostheses - Evaluation of geometrical factors affecting stimulation thresholds. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2011, 8, 44.	4.6	48
247	Polymers for neural implants. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011, 49, 18-33.	2.1	406
248	Optimization of electrical stimulation parameters for cardiac tissue engineering. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2011, 5, e115-e125.	2.7	131
249	Highly stable carbon nanotube doped poly(3,4-ethylenedioxythiophene) for chronic neural stimulation. <i>Biomaterials</i> , 2011, 32, 5551-5557.	11.4	225
250	Design, fabrication and evaluation of a conforming circumpolar peripheral nerve cuff electrode for acute experimental use. <i>Journal of Neuroscience Methods</i> , 2011, 196, 31-37.	2.5	49
251	Corrosion of tungsten microelectrodes used in neural recording applications. <i>Journal of Neuroscience Methods</i> , 2011, 198, 158-171.	2.5	142
252	Phosphene brightness modelling for voltage driven waveforms. , 2011, , .		0
253	Electrical performance of penetrating microelectrodes chronically implanted in cat cortex. , 2011, 2011, 5416-9.		11
254	Development of an implantable microstimulation system for chronic DBS in rodents. , 2011, 2011, 660-2.		5
255	Micro-reaction chamber electrodes for neural stimulation and recording. , 2011, 2011, 656-9.		5
256	Offset prediction for charge-balanced stimulus waveforms. <i>Journal of Neural Engineering</i> , 2011, 8, 046032.	3.5	9
257	Mechanical power of ankle plantar flexion and subjective pain by monophasic electrical stimulation. , 2011, 2011, 7234-7.		1

#	ARTICLE	IF	CITATIONS
258	Predicting phosphene elicitation in patients with retinal implants: A mathematical study. , 2011, 2011, 6246-9.		3
259	Process development for dry etching polydimethylsiloxane for neural electrodes. , 2011, 2011, 2977-80.		2
260	Peculiar Transmission Characteristics of the Large Gap Semi-Insulating GaAs Photoconductive Switch. Chinese Physics Letters, 2011, 28, 124201.	3.3	0
261	Comparison of coil designs for peripheral magnetic muscle stimulation. Journal of Neural Engineering, 2011, 8, 056007.	3.5	15
262	Frequency-dependent reduction of voltage-gated sodium current modulates retinal ganglion cell response rate to electrical stimulation. Journal of Neural Engineering, 2011, 8, 066007.	3.5	28
263	Electric crosstalk impairs spatial resolution of multi-electrode arrays in retinal implants. Journal of Neural Engineering, 2011, 8, 046016.	3.5	87
264	Nerve lesioning with direct current. Journal of Neural Engineering, 2011, 8, 016005.	3.5	8
265	Activation of retinal ganglion cells following epiretinal electrical stimulation with hexagonally arranged bipolar electrodes. Journal of Neural Engineering, 2011, 8, 035004.	3.5	51
266	Continuous electrical stimulation decreases retinal excitability but does not alter retinal morphology. Journal of Neural Engineering, 2011, 8, 045003.	3.5	13
267	Microstructured hydroxyl environments and Raman spectroscopy in selected basic transition-metal halides. Chinese Physics B, 2011, 20, 087801.	1.4	4
268	Silicon Probes for Cochlear Auditory Nerve Stimulation and Measurement. Advanced Materials Research, 0, 254, 82-85.	0.3	4
269	Electrochemical Charge Storage Properties of Vertically Aligned Carbon Nanotube Films: The Activation-Enhanced Length Effect. Journal of the Electrochemical Society, 2011, 158, K217.	2.9	3
270	Electrical Characteristics of a Stimulating Microelectrode-Electrolyte Interface. Key Engineering Materials, 2011, 483, 690-693.	0.4	2
271	Distinguishing splanchnic nerve and chromaffin cell stimulation in mouse adrenal slices with fast-scan cyclic voltammetry. American Journal of Physiology - Cell Physiology, 2011, 300, C49-C57.	4.6	7
272	The relative impact of microstimulation parameters on movement generation. Journal of Neurophysiology, 2012, 108, 528-538.	1.8	30
273	Implantable Closed-Loop Epilepsy Prosthesis. ACM Journal on Emerging Technologies in Computing Systems, 2012, 8, 1-18.	2.3	2
274	POWER SAVING CIRCUIT DESIGN TECHNIQUES FOR IMPLANTABLE NEURO-STIMULATORS. Journal of Circuits, Systems and Computers, 2012, 21, 1240016.	1.5	2
275	Importance of Thickness in Human Cardiomyocyte Network for Effective Electrophysiological Stimulation Using On-Chip Extracellular Microelectrodes. Japanese Journal of Applied Physics, 2012, 51, 06FK03.	1.5	3

#	ARTICLE	IF	CITATIONS
276	A BIO-MECHANICAL DESIGNED PROSTHETIC HAND WITH MULTI-CONTROL STRATEGIES. International Journal of Humanoid Robotics, 2012, 09, 1250013.	1.1	8
277	Performance analysis of single-site and multiple-site deep brain stimulation in basal ganglia for Parkinson's disease. , 2012, , .		1
278	Electrode assembly design for transcranial Direct Current Stimulation: A FEM modeling study. , 2012, 2012, 891-5.		26
279	Cardiac optogenetics. , 2012, 2012, 1386-9.		19
280	Measuring the electric field of bioelectrodes in saline during stimulation. , 2012, 2012, 807-10.		0
281	Properties and application of a multichannel integrated circuit for low-artifact, patterned electrical stimulation of neural tissue. Journal of Neural Engineering, 2012, 9, 066005.	3.5	63
282	Quantifying long-term microelectrode array functionality using chronic<i>in vivo</i> impedance testing. Journal of Neural Engineering, 2012, 9, 026028.	3.5	127
283	Extracellular matrix-based materials for neural interfacing. MRS Bulletin, 2012, 37, 606-613.	3.5	22
284	Material considerations for peripheral nerve interfacing. MRS Bulletin, 2012, 37, 573-580.	3.5	41
285	A novel technique for increasing charge injection capacity of neural electrodes for efficacious and safe neural stimulation. , 2012, 2012, 5142-5.		10
286	Can electric current steering be used to control perception of a retinal prosthesis patient. , 2012, 2012, 3013-6.		3
287	Do the Herschel cold clouds in the Galactic halo embody its dark matter?. Physica Scripta, 2012, T151, 014085.	2.5	4
288	Fabrication and characterization of 4Hâ€”SiC bipolar junction transistor with double base epilayer. Chinese Physics B, 2012, 21, 088502.	1.4	4
289	Attractors in the quasi-periodically perturbed quadratic family. Nonlinearity, 2012, 25, 1537-1545.	1.4	1
290	Design of a neural stimulator system with closed-loop charge cancellation. , 2012, , .		1
291	Surgical Implantation of Chronic Neural Electrodes for Recording Single Unit Activity and Electrocorticographic Signals. Journal of Visualized Experiments, 2012, , .	0.3	25
292	Acquiring Brain Signals from within the Brain. , 2012, , 81-103.		5
293	Pulse Energy as a Reliable Reference for Twitch Forces Induced by Transcutaneous Neuromuscular Electrical Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 574-583.	4.9	12

#	ARTICLE	IF	CITATIONS
294	Fundamentals of transcranial electric and magnetic stimulation dose: Definition, selection, and reporting practices. Brain Stimulation, 2012, 5, 435-453.	1.6	339
295	Electrical stimulation of retinal neurons in epiretinal and subretinal configuration using a multicapacitor array. Journal of Neurophysiology, 2012, 107, 2742-2755.	1.8	101
296	Charge-balanced time-optimal control for spiking neuron oscillators. , 2012, , .		2
297	Low-power circuit structures for chip-scale stimulating implants. , 2012, , .		1
298	Progress Toward Development of a Multichannel Vestibular Prosthesis for Treatment of Bilateral Vestibular Deficiency. Anatomical Record, 2012, 295, 2010-2029.	1.4	64
299	<i>In vitro</i> electrical-stimulated wound-healing chip for studying electric field-assisted wound-healing process. Biomicrofluidics, 2012, 6, 34117.	2.4	47
300	Temperature control at DBS electrodes using a heat sink: experimentally validated FEM model of DBS lead architecture. Journal of Neural Engineering, 2012, 9, 046009.	3.5	44
301	Material considerations for<i>in vitro</i>neural interface technology. MRS Bulletin, 2012, 37, 566-572.	3.5	19
302	Is Constant Current or Constant Voltage Spinal Cord Stimulation Superior for the Suppression of Nociceptive Visceral and Somatic Stimuli? A Rat Model. Neuromodulation, 2012, 15, 132-143.	0.8	12
303	Power efficient output stage for high density implantable stimulators. Electronics Letters, 2012, 48, 551.	1.0	5
304	New charge balancing method based on imbalanced biphasic current pulses for functional electrical stimulation. , 2012, , .		1
305	A Tripolar Current-Steering Stimulator ASIC for Field Shaping in Deep Brain Stimulation. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 197-207.	4.0	32
306	Neurotrophins and their role in the cochlea. Hearing Research, 2012, 288, 19-33.	2.0	90
308	High-Side Digitally Current Controlled Biphasic Bipolar Microstimulator. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 331-340.	4.9	15
309	Layered Nanocomposites from Gold Nanoparticles for Neural Prosthetic Devices. Nano Letters, 2012, 12, 3391-3398.	9.1	73
310	An anthropomorphic controlled hand prosthesis system. Journal of Zhejiang University: Science C, 2012, 13, 769-780.	0.7	1
311	Power efficient output stages for high density implantable stimulators — Review and outlook. , 2012, , .		0
312	Low-power high-voltage charge pumps for implantable microstimulators. , 2012, , .		5

#	ARTICLE	IF	CITATIONS
313	Current steering to activate targeted neural pathways during deep brain stimulation of the subthalamic region. Brain Stimulation, 2012, 5, 369-377.	1.6	78
314	Successive-divider-line ADC dedicated to low-power medical devices. Microelectronics Journal, 2012, 43, 670-679.	2.0	1
315	Iridium Oxohydroxide, a Significant Member in the Family of Iridium Oxides. Stoichiometry, Characterization, and Implications in Bioelectrodes. Journal of Physical Chemistry C, 2012, 116, 5155-5168.	3.1	73
317	Advances in Computer, Communication, Control and Automation. Lecture Notes in Electrical Engineering, 2012, , .	0.4	3
318	Multi-application electrical stimulator architecture dedicated to waveform control by electrode-tissue impedance spectra monitoring. , 2012, , .		0
319	Recent advances in power efficient output stage for high density implantable stimulators. , 2012, 2012, 855-8.		10
320	Design of a neural stimulator system with closed-loop charge cancellation. , 2012, , .		1
321	Signal distortion from microelectrodes in clinical EEG acquisition systems. Journal of Neural Engineering, 2012, 9, 056007.	3.5	18
322	Energy Efficient Neural Stimulation: Coupling Circuit Design and Membrane Biophysics. PLoS ONE, 2012, 7, e51901.	2.5	29
323	A comparison of microelectrodes for a visual cortical prosthesis using finite element analysis. Frontiers in Neuroengineering, 2012, 5, 23.	4.8	19
324	High frequency deep brain stimulation attenuates subthalamic and cortical rhythms in Parkinson's disease. Frontiers in Human Neuroscience, 2012, 6, 155.	2.0	205
325	Gastric Electrical Stimulation for Gastroparesis. Journal of Neurogastroenterology and Motility, 2012, 18, 131-137.	2.4	52
326	Organic Bionics: A New Dimension in Neural Communications. Advanced Functional Materials, 2012, 22, 2003-2014.	14.9	55
327	Nanobionics: the impact of nanotechnology on implantable medical bionic devices. Nanoscale, 2012, 4, 4327.	5.6	64
328	Safety of multi-channel stimulation implants: a single blocking capacitor per channel is not sufficient after single-fault failure. Medical and Biological Engineering and Computing, 2012, 50, 403-410.	2.8	4
329	Time optimal control of spiking neurons. Journal of Mathematical Biology, 2012, 64, 981-1004.	1.9	38
330	Parylene-based implantable platinum-black coated wire microelectrode for orbicularis oculi muscle electrical stimulation. Biomedical Microdevices, 2012, 14, 367-373.	2.8	36
331	A Randomized Placebo-Controlled Study of Noninvasive Cortical Electrostimulation in the Treatment of Fibromyalgia Patients. Pain Medicine, 2012, 13, 115-124.	1.9	23

#	ARTICLE	IF	CITATIONS
332	Effects of amygdala-hippocampal stimulation on interictal epileptic discharges. <i>Epilepsy Research</i> , 2012, 99, 87-93.	1.6	35
333	Application of a computational model of vagus nerve stimulation. <i>Acta Neurologica Scandinavica</i> , 2012, 126, 336-343.	2.1	92
334	Insect-machine interface: A carbon nanotube-enhanced flexible neural probe. <i>Journal of Neuroscience Methods</i> , 2012, 204, 355-365.	2.5	32
335	Nanostructuration strategies to enhance microelectrode array (MEA) performance for neuronal recording and stimulation. <i>Journal of Physiology (Paris)</i> , 2012, 106, 137-145.	2.1	54
336	Modeling extracellular electrical neural stimulation: From basic understanding to MEA-based applications. <i>Journal of Physiology (Paris)</i> , 2012, 106, 146-158.	2.1	67
337	A 0.013 mm^2 , 5 mW , DC-Coupled Neural Signal Acquisition IC With 0.5 V Supply. <i>IEEE Journal of Solid-State Circuits</i> , 2012, 47, 232-243.	5.4	285
338	A Neural Stimulator Frontend With High-Voltage Compliance and Programmable Pulse Shape for Epiretinal Implants. <i>IEEE Journal of Solid-State Circuits</i> , 2012, 47, 244-256.	5.4	179
339	An Energy-Efficient, Adiabatic Electrode Stimulator With Inductive Energy Recycling and Feedback Current Regulation. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2012, 6, 1-14.	4.0	109
340	High-Frequency Electrical Stimulation of Cardiac Cells and Application to Artifact Reduction. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 1381-1390.	4.2	13
341	A CMOS multichannel electrical stimulation prototype system. <i>International Journal of Circuit Theory and Applications</i> , 2013, 41, 238-258.	2.0	6
342	Predicting non-isometric fatigue induced by electrical stimulation pulse trains as a function of pulse duration. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2013, 10, 13.	4.6	5
343	Physiological and modeling evidence for focal transcranial electrical brain stimulation in humans: A basis for high-definition tDCS. <i>NeuroImage</i> , 2013, 74, 266-275.	4.2	381
344	Feedback control of electrode offset voltage during functional electrical stimulation. <i>Journal of Neuroscience Methods</i> , 2013, 218, 55-71.	2.5	5
345	Experimental Study of the Course of Threshold Current, Voltage and Electrode Impedance During Stepwise Stimulation From the Skin Surface to the Human Cortex. <i>Brain Stimulation</i> , 2013, 6, 482-489.	1.6	7
346	EFFICACY OF A NEW CHARGE-BALANCED BIPHASIC ELECTRICAL STIMULUS IN THE ISOLATED SCIATIC NERVE AND THE HIPPOCAMPAL SLICE. <i>International Journal of Neural Systems</i> , 2013, 23, 1250031.	5.2	18
347	Insights into cortical mechanisms of behavior from microstimulation experiments. <i>Progress in Neurobiology</i> , 2013, 103, 115-130.	5.7	123
348	A Largely Deformable Surface Type Neural Electrode Array Based on PDMS. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2013, 21, 544-553.	4.9	42
349	Poly(3,4-ethylenedioxythiophene)/multiwall carbon nanotube composite coatings for improving the stability of microelectrodes in neural prostheses applications. <i>Acta Biomaterialia</i> , 2013, 9, 6439-6449.	8.3	78

#	ARTICLE	IF	CITATIONS
350	Mechanical and electrical stability of parylene-based platinum-black coated wire microelectrode for implantable applications. <i>Journal of Applied Electrochemistry</i> , 2013, 43, 301-308.	2.9	10
351	Focal Electrical Stimulation of Major Ganglion Cell Types in the Primate Retina for the Design of Visual Prostheses. <i>Journal of Neuroscience</i> , 2013, 33, 7194-7205.	3.6	94
352	Principles of Electrical Stimulation and Dorsal Column Mapping as it Relates to Spinal Cord Stimulation: An Overview. <i>Current Pain and Headache Reports</i> , 2013, 17, 315.	2.9	27
353	Comparative assessment of iridium oxide and platinum alloy wires using an in vitro glial scar assay. <i>Biomedical Microdevices</i> , 2013, 15, 917-924.	2.8	13
354	Graded conducting titanium–iridium oxide coatings for bioelectrodes in neural systems. <i>Thin Solid Films</i> , 2013, 534, 316-324.	1.8	21
355	Classification of methods in transcranial Electrical Stimulation (tES) and evolving strategy from historical approaches to contemporary innovations. <i>Journal of Neuroscience Methods</i> , 2013, 219, 297-311.	2.5	186
356	Thin Films and Coatings in Biology. <i>Biological and Medical Physics Series</i> , 2013, , .	0.4	6
357	Neural Engineering. , 2013, , .		24
358	The Role of Biomaterials in Stimulating Bioelectrodes. , 2013, , 981-996.		4
359	A comprehensive multiscale framework for simulating optogenetics in the heart. <i>Nature Communications</i> , 2013, 4, 2370.	12.8	104
360	Tissue-Compliant Neural Implants from Microfabricated Carbon Nanotube Multilayer Composite. <i>ACS Nano</i> , 2013, 7, 7619-7629.	14.6	74
361	Integrated electrode and high density feedthrough system for chip-scale implantable devices. <i>Biomaterials</i> , 2013, 34, 6109-6118.	11.4	28
362	Reducing anterior tibial translation by applying functional electrical stimulation in dynamic knee extension exercises: Quantitative results acquired via marker tracking. <i>Clinical Biomechanics</i> , 2013, 28, 549-554.	1.2	4
363	Transcranial electric and magnetic stimulation. <i>Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn</i> , 2013, 116, 329-342.	1.8	72
364	Animal Models and Methods to Study the Relationships Between Brain and Tissues in Metabolic Regulation. , 2013, , 569-593.		1
365	Focal Modulation of the Primary Motor Cortex in Fibromyalgia Using 4–1-Ring High-Definition Transcranial Direct Current Stimulation (HD-tDCS): Immediate and Delayed Analgesic Effects of Cathodal and Anodal Stimulation. <i>Journal of Pain</i> , 2013, 14, 371-383.	1.4	166
366	Safety of neural monitoring in thyroid surgery. <i>International Journal of Surgery</i> , 2013, 11, S120-S126.	2.7	45
367	Principles of electrical stimulation of neural tissue. <i>Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn</i> , 2013, 116, 3-18.	1.8	103

#	ARTICLE	IF	CITATIONS
368	A 2.6V Silicon-on Sapphire CMOS current imbalance sensing circuit for neurostimulation applications. , 2013, , .		0
369	Methods for extra-low voltage transcranial direct current stimulation: Current and time dependent impedance decreases. Clinical Neurophysiology, 2013, 124, 551-556.	1.5	52
370	Activation of the central nervous system induced by micro-magnetic stimulation. Nature Communications, 2013, 4, 2463.	12.8	74
371	Attaining higher resolution visual prosthetics: a review of the factors and limitations. Journal of Neural Engineering, 2013, 10, 011002.	3.5	66
372	A Power-Efficient Wireless System With Adaptive Supply Control for Deep Brain Stimulation. IEEE Journal of Solid-State Circuits, 2013, 48, 2203-2216.	5.4	177
373	Microfabricated nerve-electrode interfaces in neural prosthetics and neural engineering. Biotechnology and Genetic Engineering Reviews, 2013, 29, 113-134.	6.2	3
374	A CMOS neurostimulator with on-chip DAC calibration and charge balancing. , 2013, , .		5
375	Impedance spectra of polypyrrole coated platinum electrodes. , 2013, 2013, 539-42.		3
376	A wideband CMOS current driver for bioimpedance applications with output DC regulation. , 2013, , .		0
377	In Vivo Measurements With Robust Silicon-Based Multielectrode Arrays With Extreme Shaft Lengths. IEEE Sensors Journal, 2013, 13, 3263-3269.	4.7	13
378	Artificial Vision. , 2013, , 2078-2093.		0
379	Selectivity for Specific Cardiovascular Effects of Vagal Nerve Stimulation With a Multi-Contact Electrode Cuff. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 32-36.	4.9	21
380	Characterization of a non linear fractional model of electrode-tissue impedance for neuronal stimulation. , 2013, , .		1
381	A transistor-only power-efficient high-frequency voltage-mode stimulator for a multichannel system. , 2013, , .		4
382	Precision control of pulse widths for charge balancing in functional electrical stimulation. , 2013, , .		11
383	A Blink Restoration System With Contralateral EMG Triggered Stimulation and Real-Time Artifact Blanking. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 140-148.	4.0	41
384	Selective ENG recordings using a multi-contact cuff electrode. , 2013, , .		5
385	Vertical electric field stimulated neural cell functionality on porous amorphous carbon electrodes. Biomaterials, 2013, 34, 9252-9263.	11.4	46

#	ARTICLE	IF	CITATIONS
386	Intraoperative motor evoked potential monitoring – A position statement by the American Society of Neurophysiological Monitoring. Clinical Neurophysiology, 2013, 124, 2291-2316.	1.5	416
387	Dual-tDCS Enhances Online Motor Skill Learning and Long-Term Retention in Chronic Stroke Patients. Frontiers in Human Neuroscience, 2012, 6, 343.	2.0	118
388	A SU-8-Based Fully Integrated Biocompatible Inductively Powered Wireless Neurostimulator. Journal of Microelectromechanical Systems, 2013, 22, 170-176.	2.5	38
389	Charge transfer and stability of implantable electrodes on flexible substrate. Sensors and Actuators B: Chemical, 2013, 178, 132-139.	7.8	24
390	Zwitterionic Phenyl Layers: Finally, Stable, Anti-Biofouling Coatings that Do Not Passivate Electrodes. ACS Applied Materials & Interfaces, 2013, 5, 4827-4835.	8.0	82
391	The Development of a Retinal Prosthesis: A Significant Biomaterials Challenge. , 2013, , 946-957.		0
392	Safe Direct Current Stimulation to Expand Capabilities of Neural Prostheses. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 319-328.	4.9	47
393	Probabilistic functional tractography of the human cortex. NeuroImage, 2013, 80, 307-317.	4.2	86
394	Interaction between electrical modulation of the brain and pharmacotherapy to control pharmacoresistant epilepsy. , 2013, 138, 211-228.		13
395	Analysis of functional electrical stimulation parameters by muscular contraction time and knee joint angular variation. Biomedical Engineering Letters, 2013, 3, 1-7.	4.1	3
396	Electrical Stimulation: A Novel Tool for Tissue Engineering. Tissue Engineering - Part B: Reviews, 2013, 19, 48-57.	4.8	291
397	Spatially restricted electrical activation of retinal ganglion cells in the rabbit retina by hexapolar electrode return configuration. Journal of Neural Engineering, 2013, 10, 036013.	3.5	37
398	Equalization for intracortical microstimulation artifact reduction. , 2013, 2013, 245-8.		7
399	A 7.8V neurostimulator based on cascoded low-voltage Silicon-on-Sapphire MOS transistors. , 2013, , .		1
401	Evaluation of single-cell force spectroscopy and fluorescence microscopy to determine cell interactions with femtosecond-laser microstructured titanium surfaces. Journal of Biomedical Materials Research - Part A, 2013, 101A, 981-990.	4.0	12
402	Materials for implantable systems. , 2013, , 3-38.		6
403	Optimized single pulse stimulation strategy for retinal implants. Journal of Neural Engineering, 2013, 10, 016003.	3.5	4
405	Retinal Prosthesis. , 2013, , 635-655.		1

#	ARTICLE	IF	CITATIONS
406	A SUPER-EDDINGTON WIND SCENARIO FOR THE PROGENITORS OF TYPE Ia SUPERNOVAE. <i>Astrophysical Journal Letters</i> , 2013, 778, L32.	8.3	16
407	Application of Ultrasonic Microscopy to Evaluation of Electrically Ligated Vessel Tissue. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 07HF20.	1.5	4
408	Carbon nanotube-based multi electrode arrays for neuronal interfacing: progress and prospects. <i>Frontiers in Neural Circuits</i> , 2012, 6, 122.	2.8	129
409	Safe direct current stimulator 2: Concept and design. , 2013, 2013, 3126-9.		14
410	Design and Validation of a Bioreactor for Simulating the Cardiac Niche: A System Incorporating Cyclic Stretch, Electrical Stimulation, and Constant Perfusion. <i>Tissue Engineering - Part A</i> , 2013, 19, 403-414.	3.1	46
411	What limits spatial perception with retinal implants?. , 2013, , .		3
412	Fabrication of gold multi-electrode array with bi-layer lift-off resist technique and surface modification with gold nanoparticles by electrochemical deposition. , 2013, , .		1
413	Circuit and volume conductor models of transcutaneous electrical stimulation. , 2013, , .		0
414	Stability of thin-film wireless recording and stimulation devices for epilepsy monitoring. , 2013, , .		1
415	Minimum energy control for<i>in vitro</i>neurons. <i>Journal of Neural Engineering</i> , 2013, 10, 036005.	3.5	34
416	High gamma power in ECoG reflects cortical electrical stimulation effects on unit activity in layers V/VI. <i>Journal of Neural Engineering</i> , 2013, 10, 066002.	3.5	21
417	Electrical stimulation with a penetrating optic nerve electrode array elicits visuotopic cortical responses in cats. <i>Journal of Neural Engineering</i> , 2013, 10, 036022.	3.5	26
418	Post stimulus effects of high frequency biphasic electrical current on a fibre's conductivity in isolated frog nerves. <i>Journal of Neural Engineering</i> , 2013, 10, 036024.	3.5	16
420	Dense arrays of micro-needles for recording and electrical stimulation of neural activity in acute brain slices. <i>Journal of Neural Engineering</i> , 2013, 10, 016007.	3.5	9
421	Long-term results of posteromedial hypothalamic deep brain stimulation for patients with resistant aggressiveness. <i>Journal of Neurosurgery</i> , 2013, 119, 277-287.	1.6	62
422	Nanostructured Surfaces for Intracerebral Neurotransmitter Recording. , 2013, , 231-242.		0
423	Technique and Considerations in the Use of 4x1 Ring High-definition Transcranial Direct Current Stimulation (HD-tDCS). <i>Journal of Visualized Experiments</i> , 2013, , e50309.	0.3	141
424	Suppression of epileptiform activity by a single short-duration electric field in rat hippocampus in vitro. <i>Journal of Neurophysiology</i> , 2013, 109, 2720-2731.	1.8	13

#	ARTICLE	IF	CITATIONS
425	Quasi-Monopolar Stimulation: A Novel Electrode Design Configuration for Performance Optimization of a Retinal Neuroprosthesis. PLoS ONE, 2013, 8, e73130.	2.5	14
426	Implantable Devices: Issues and Challenges. Electronics (Switzerland), 2013, 2, 1-34.	3.1	239
427	Anti-inflammatory polymer electrodes for glial scar treatment: bringing the conceptual idea to future results. Frontiers in Neuroengineering, 2014, 7, 9.	4.8	23
428	Deep brain stimulation macroelectrodes compared to multiple microelectrodes in rat hippocampus. Frontiers in Neuroengineering, 2014, 7, 16.	4.8	26
429	Subdural porous and notched mini-grid electrodes for wireless intracranial electroencephalographic recordings. Journal of Multidisciplinary Healthcare, 2014, 7, 573.	2.7	3
431	Network Experimental Approaches. , 2014, , 55-66.		1
432	Optimal Chaotic Desynchronization for Neural Populations. SIAM Journal on Applied Dynamical Systems, 2014, 13, 276-305.	1.6	63
433	Optimization and electrochemical characterization of RF-sputtered iridium oxide microelectrodes for electrical stimulation. Journal of Micromechanics and Microengineering, 2014, 24, 025015.	2.6	12
434	A simple and precise charge balancing method for voltage mode stimulation. , 2014, , .		14
435	Exposure of cells to electric fields: Numerical analysis with a volume-integral-equation approach. , 2014, , .		0
436	Laser patterning of platinum electrodes for safe neurostimulation. Journal of Neural Engineering, 2014, 11, 056017.	3.5	51
437	Interphase gap as a means to reduce electrical stimulation thresholds for epiretinal prostheses. Journal of Neural Engineering, 2014, 11, 016007.	3.5	44
438	Trans-Spinal Direct Current Stimulation Alters Muscle Tone in Mice with and without Spinal Cord Injury with Spasticity. Journal of Neuroscience, 2014, 34, 1701-1709.	3.6	35
439	A 20V-compliance implantable neural stimulator IC with closed-loop power control, active charge balancing, and electrode impedance check. , 2014, , .		12
440	Optimization of electrical stimulation parameters for electroresponsive hydrogels for biomedical applications. Journal of Applied Polymer Science, 2015, 132, .	2.6	9
441	Design and fabrication of a multi-electrode array for spinal cord epidural stimulation. , 2014, 2014, 6834-7.		11
442	Design of Charge-Balanced Time-Optimal Stimuli for Spiking Neuron Oscillators. Neural Computation, 2014, 26, 2223-2246.	2.2	14
443	Response of the Hodgkin-Huxley Neuron to a Periodic Sequence of Biphasic Pulses. Acta Physica Polonica A, 2014, 125, 145-154.	0.5	0

#	ARTICLE	IF	CITATIONS
444	A closed-loop charge balancing FPAA circuit with sub-nano-amp DC error for electrical stimulation. , 2014, , .		2
445	Human pluripotent stem cells (hPSCs) for heart regeneration. , 2014, , 297-324.		0
446	Energy consumption efficiency at the tip of cardiac spiral waves. , 2014, , .		0
447	Neural implant stimulation based on TiO ₂ nanostructured arrays; a multiphysics modeling verification. , 2014, , .		2
448	Polarity detection base pulse insertion for active charge balancing in electrical stimulation. , 2014, , .		4
449	Wireless simultaneous stimulation-and-recording device to train cortical circuits in somatosensory cortex. , 2014, 2014, 426-9.		2
450	The development, characterization, and cellular response of a novel electroactive nanostructured composite for electrical stimulation of neural cells. Biomaterials Science, 2014, 2, 1727-1739.	5.4	21
451	A wireless implantable switched-capacitor based optogenetic stimulating system. , 2014, 2014, 878-81.		8
452	Electrical conditioning of adipose-derived stem cells in a multi-chamber culture platform. Biotechnology and Bioengineering, 2014, 111, 1452-1463.	3.3	30
453	Presynaptic actions of transcranial and local direct current stimulation in the red nucleus. Journal of Physiology, 2014, 592, 4313-4328.	2.9	26
454	Electrical stimulation for cortical mapping reduces the density of high frequency oscillations. Epilepsy Research, 2014, 108, 1758-1769.	1.6	10
455	Neurohistopathological Findings at the Electrode-Tissue Interface in Long-Term Deep Brain Stimulation: Systematic Literature Review, Case Report, and Assessment of Stimulation Threshold Safety. Neuromodulation, 2014, 17, 405-418.	0.8	32
456	Principles of Cord Activation During Spinal Cord Stimulation. Neuromodulation, 2014, 17, 12-21.	0.8	36
457	Design of a net-zero charge neural stimulator with feedback control. , 2014, , .		5
458	Bio-impedance characterization technique with implantable neural stimulator using biphasic current stimulus. , 2014, 2014, 474-7.		13
460	CARBON NEUTRON STAR ATMOSPHERES. Astrophysical Journal, Supplement Series, 2014, 210, 13.	7.7	35
461	See the light: can optogenetics restore healthy heartbeats? And, if it can, is it really worth the effort?. Expert Review of Cardiovascular Therapy, 2014, 12, 17-20.	1.5	18
462	Quasi-monopolar electrical stimulation of the retina: a computational modelling study. Journal of Neural Engineering, 2014, 11, 025002.	3.5	32

#	ARTICLE	IF	CITATIONS
463	A Hamilton-Jacobi-Bellman approach for termination of seizure-like bursting. Journal of Computational Neuroscience, 2014, 37, 345-355.	1.0	14
464	The Effect of Electrode Placement and Interphase Interval on Force Production During Stimulation of the Dorsiflexor Muscles. Artificial Organs, 2014, 38, E142-6.	1.9	11
465	First-in-Human Trial of a Novel Suprachoroidal Retinal Prosthesis. PLoS ONE, 2014, 9, e115239.	2.5	274
466	MULTIWAVELENGTH OBSERVATIONS OF THE CANDIDATE DISINTEGRATING SUB-MERCURY KIC 12557548B, „ Astrophysical Journal, 2014, 786, 100.	4.5	66
467	Structural, mechanical, and electrical properties of cubic boron nitride thin films deposited by magnetically enhanced plasma ion plating method. Japanese Journal of Applied Physics, 2014, 53, 03DB02.	1.5	6
468	<i>NuSTAR</i>OBSERVATIONS OF THE MAGNETAR 1E 2259+586. Astrophysical Journal, 2014, 789, 75.	4.5	33
469	Nanostructured Coatings for Improved Charge Delivery to Neurons. , 2014, , 71-134.		26
470	Controlled activation of iridium film for AIROF microelectrodes. Sensors and Actuators B: Chemical, 2014, 190, 601-611.	7.8	20
471	Galvanic microparticles increase migration of human dermal fibroblasts in a wound-healing model via reactive oxygen species pathway. Experimental Cell Research, 2014, 320, 79-91.	2.6	26
472	Functional MRI reveals frequency-dependent responses during deep brain stimulation at the subthalamic nucleus or internal globus pallidus. NeuroImage, 2014, 84, 11-18.	4.2	62
473	Temporal Rearrangement of Pre-ictal PTZ Induced Spike Discharges by Low Frequency Electrical Stimulation to the Amygdaloid Complex. Brain Stimulation, 2014, 7, 170-178.	1.6	24
474	A Novel Model Incorporating Two Variability Sources for Describing Motor Evoked Potentials. Brain Stimulation, 2014, 7, 541-552.	1.6	67
475	Reversible Nerve Conduction Block Using Kilohertz Frequency Alternating Current. Neuromodulation, 2014, 17, 242-255.	0.8	195
476	Electrical Stimulation of the Substantia Nigra Pars Reticulata (SNr) Suppresses Chemically Induced Neocortical Seizures in Rats. Journal of Molecular Neuroscience, 2014, 53, 546-552.	2.3	12
477	Durability of high surface area platinum deposits on microelectrode arrays for acute neural recordings. Journal of Materials Science: Materials in Medicine, 2014, 25, 931-940.	3.6	18
478	All-carbon-nanotube flexible multi-electrode array for neuronal recording and stimulation. Biomedical Microdevices, 2014, 16, 43-53.	2.8	114
479	Nanotechnology and Neuroscience: Nano-electronic, Photonic and Mechanical Neuronal Interfacing. , 2014, , .		10
480	Close-Field Electroporation Gene Delivery Using the Cochlear Implant Electrode Array Enhances the Bionic Ear. Science Translational Medicine, 2014, 6, 233ra54.	12.4	130

#	ARTICLE	IF	CITATIONS
481	Introduction to biomaterials and implantable device design. , 2014, , 1-31.		2
482	Neural Computation, Neural Devices, and Neural Prosthesis. , 2014, , .		7
483	Graphene oxide doped conducting polymer nanocomposite film for electrode-tissue interface. Biomaterials, 2014, 35, 2120-2129.	11.4	109
484	Design of a reconfigurable stimulator for multichannel integrated systems dedicated to neurobiology experiments. , 2014, , .		1
485	A Parylene Self-Locking Cuff Electrode for Peripheral Nerve Stimulation and Recording. Journal of Microelectromechanical Systems, 2014, 23, 1025-1035.	2.5	46
486	Compact Nonlinear Model of an Implantable Electrode Array for Spinal Cord Stimulation (SCS). IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 382-390.	4.0	24
487	Improving Cochlear Implant Properties Through Conductive Hydrogel Coatings. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 411-418.	4.9	62
488	Trans-spinal direct current stimulation modifies spinal cord excitability through synaptic and axonal mechanisms. Physiological Reports, 2014, 2, e12157.	1.7	31
489	Patient-Perceived Differences Between Constant Current and Constant Voltage Spinal Cord Stimulation Systems. Neuromodulation, 2014, 17, 28-36.	0.8	39
490	Materials considerations of implantable neuroengineering devices for clinical use. Current Opinion in Solid State and Materials Science, 2014, 18, 329-336.	11.5	20
491	Factors Affecting Perceptual Thresholds in a Suprachoroidal Retinal Prosthesis. , 2014, 55, 6467.		115
492	Controlled CO release using photochemical, thermal and electrochemical approaches from the amino carbene complex [(CO)5CrC(NC4H8)CH3]. Physical Chemistry Chemical Physics, 2014, 16, 21230-21233.	2.8	10
493	Safety Ensuring Retinal Prosthesis With Precise Charge Balance and Low Power Consumption. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 108-118.	4.0	45
494	Influences of Interpolation Error, Electrode Geometry, and the Electrodeâ€Tissue Interface on Models of Electric Fields Produced by Deep Brain Stimulation. IEEE Transactions on Biomedical Engineering, 2014, 61, 297-307.	4.2	33
495	Cancellation of cellular responses to nanoelectroporation by reversing the stimulus polarity. Cellular and Molecular Life Sciences, 2014, 71, 4431-4441.	5.4	108
496	Locally optimal extracellular stimulation for chaotic desynchronization of neural populations. Journal of Computational Neuroscience, 2014, 37, 243-257.	1.0	32
497	Electrochemical performance of platinum electrodes within the multi-electrode spiral nerve cuff. Australasian Physical and Engineering Sciences in Medicine, 2014, 37, 525-533.	1.3	4
498	The Role of Contact Media at the Skin-electrode Interface During Transcranial Direct Current Stimulation (tDCS). Brain Stimulation, 2014, 7, 762-764.	1.6	66

#	ARTICLE	IF	CITATIONS
499	Toward More Versatile and Intuitive Cortical Brain-Machine Interfaces. Current Biology, 2014, 24, R885-R897.	3.9	70
500	Application of PEDOT-CNT Microelectrodes for Neurotransmitter Sensing. Electroanalysis, 2014, 26, 548-555.	2.9	31
501	Bio-Hybrid Cell-Based Actuators for Microsystems. Small, 2014, 10, 3831-3851.	10.0	184
502	Polymer integration for packaging of implantable sensors. Sensors and Actuators B: Chemical, 2014, 202, 758-778.	7.8	136
503	When Size Matters: Large Electrodes Induce Greater Stimulation-related Cutaneous Discomfort Than Smaller Electrodes at Equivalent Current Density. Brain Stimulation, 2014, 7, 460-467.	1.6	43
504	Novel interfaces for light directed neuronal stimulation: advances and challenges. International Journal of Nanomedicine, 2014, 9 Suppl 1, 65.	6.7	65
505	A new approach to design safe and reliable electrical stimulator. International Journal of Biomedical Engineering and Technology, 2014, 15, 305.	0.2	4
506	A fully programmable multi-channel electrotactile stimulator. , 2014, , .		0
507	Redundant safety features in a high-channel-count retinal neurostimulator. , 2014, 2014, 216-219.		3
508	Frequency dependence of behavioral modulation by hippocampal electrical stimulation. Journal of Neurophysiology, 2014, 111, 470-480.	1.8	7
509	Presynaptic and postsynaptic effects of local cathodal DC polarization within the spinal cord in anaesthetized animal preparations. Journal of Physiology, 2015, 593, 947-966.	2.9	36
510	Low-intensity Local Direct Current modulates interictal discharges in mTLE: Computational and experimental insights. , 2015, , .		1
511	Prosthetic vision: devices, patient outcomes and retinal research. Australasian journal of optometry, The, 2015, 98, 395-410.	1.3	30
512	Long-term stability of sensitivity to intracortical microstimulation of somatosensory cortex. Journal of Neural Engineering, 2015, 12, 056010.	3.5	40
513	Flexible active electrode arrays with ASICs that fit inside the rat's spinal canal. Biomedical Microdevices, 2015, 17, 106.	2.8	16
514	Objective measures in cochlear implanted patients: A computational framework to evaluate artifact rejection methodologies. , 2015, , .		0
515	MEMS: Enabled Drug Delivery Systems. Advanced Healthcare Materials, 2015, 4, 969-982.	7.6	54
516	Conducting Polymers for Neural Prosthetic and Neural Interface Applications. Advanced Materials, 2015, 27, 7620-7637.	21.0	297

#	ARTICLE	IF	CITATIONS
517	Biphasic monopolar electrical stimulation induces rapid and directed galvanotaxis in adult subependymal neural precursors. <i>Stem Cell Research and Therapy</i> , 2015, 6, 67.	5.5	31
518	Comparison of Twitch Responses During Current- or Voltage- Controlled Transcutaneous Neuromuscular Electrical Stimulation. <i>Artificial Organs</i> , 2015, 39, 868-875.	1.9	9
519	Layer-by-layer assembly for biomedical applications in the last decade. <i>Nanotechnology</i> , 2015, 26, 422001.	2.6	109
520	Miniature wireless recording and stimulation system for rodent behavioural testing. <i>Journal of Neural Engineering</i> , 2015, 12, 066015.	3.5	21
522	A Programmable High-Voltage Compliance Neural Stimulator for Deep Brain Stimulation in Vivo. <i>Sensors</i> , 2015, 15, 12700-12719.	3.8	12
523	Scalable Microfabrication Procedures for Adhesive-Integrated Flexible and Stretchable Electronic Sensors. <i>Sensors</i> , 2015, 15, 23459-23476.	3.8	38
524	High frequency switched-mode stimulation can evoke post synaptic responses in cerebellar principal neurons. <i>Frontiers in Neuroengineering</i> , 2015, 8, 2.	4.8	7
525	Revealing neuronal function through microelectrode array recordings. <i>Frontiers in Neuroscience</i> , 2014, 8, 423.	2.8	493
526	In vivo comparison of the charge densities required to evoke motor responses using novel annular penetrating microelectrodes. <i>Frontiers in Neuroscience</i> , 2015, 09, 265.	2.8	34
527	Clearly, Graphene is the New Gold. <i>Epilepsy Currents</i> , 2015, 15, 351-352.	0.8	2
528	Bioelectronic interfaces for artificially driven human movements. , 0, , 281-293.		0
529	Effects of interphase interval and stimulation form on dorsiflexors contraction force. <i>Technology and Health Care</i> , 2015, 23, 475-483.	1.2	5
530	Multiphoton microfabrication of conducting polymer-based biomaterials. <i>Journal of Materials Chemistry B</i> , 2015, 3, 5001-5004.	5.8	16
531	Poly(3,4-ethylenedioxythiophene)-ionic liquid coating improves neural recording and stimulation functionality of MEAs. <i>Journal of Materials Chemistry C</i> , 2015, 3, 6515-6524.	5.5	47
532	Revisiting the Cochlear and Central Mechanisms of Tinnitus and Therapeutic Approaches. <i>Audiology and Neuro-Otology</i> , 2015, 20, 53-59.	1.3	94
533	Scaling of Electrode-Electrolyte Interface Model Parameters In Phosphate Buffered Saline. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2015, 9, 441-448.	4.0	9
534	Effect of Stimulus Waveform of Biphasic Current Pulse on Retinal Ganglion Cell Responses in Retinal Degeneration (<i>rd1</i>) mice. <i>Korean Journal of Physiology and Pharmacology</i> , 2015, 19, 167.	1.2	17
535	Steady State Membrane Potential and Sodium Current Changes during High Frequency Electrical Nerve Stimulation. , 2015, , .		1

#	ARTICLE	IF	CITATIONS
536	VLSI circuits for bidirectional interface to peripheral and visceral nerves. , 2015, 2015, 2163-6.		1
537	A pulse-width-adaptive active charge balancing circuit with pulse-insertion based residual charge compensation and quantization for electrical stimulation applications. , 2015, , .		7
538	Comment on: Short pulse width widens the therapeutic window of subthalamic neurostimulation. Annals of Clinical and Translational Neurology, 2015, 2, 984-985.	3.7	7
539	A figure of merit for neural electrical stimulation circuits. , 2015, 2015, 2075-8.		4
540	Decreasing stimulation charge by delaying the discharge phase - comparison of efficacy for various stimulation waveforms. , 2015, , .		0
541	Parylene-Based Electrochemical-MEMS Force Sensor for Studies of Intracortical Probe Insertion Mechanics. Journal of Microelectromechanical Systems, 2015, 24, 1534-1544.	2.5	18
542	On using residual voltage to estimate electrode model parameters for damage detection. , 2015, 2015, .		1
543	A closed-loop wireless homepage for optogenetic stimulation experiments. , 2015, , .		8
544	Behavioral assessment of sensitivity to intracortical microstimulation of primate somatosensory cortex. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15202-15207.	7.1	122
545	Model-based analysis and design of waveforms for efficient neural stimulation. Progress in Brain Research, 2015, 222, 147-162.	1.4	43
546	Designing closed-loop brain-machine interfaces with network of spiking neurons using MPC strategy. , 2015, , .		2
547	Methods for Specific Electrode Resistance Measurement During Transcranial Direct Current Stimulation. Brain Stimulation, 2015, 8, 150-159.	1.6	13
548	Progress towards biocompatible intracortical microelectrodes for neural interfacing applications. Journal of Neural Engineering, 2015, 12, 011001.	3.5	309
549	A Power-Efficient Switched-Capacitor Stimulating System for Electrical/Optical Deep Brain Stimulation. IEEE Journal of Solid-State Circuits, 2015, 50, 360-374.	5.4	117
550	Evaluation of poly(3,4-ethylenedioxythiophene)/carbon nanotube neural electrode coatings for stimulation in the dorsal root ganglion. Journal of Neural Engineering, 2015, 12, 016008.	3.5	98
551	Hierarchical Patterning of Multifunctional Conducting Polymer Nanoparticles as a Bionic Platform for Topographic Contact Guidance. ACS Nano, 2015, 9, 1767-1774.	14.6	32
552	Delaying discharge after the stimulus significantly decreases muscle activation thresholds with small impact on the selectivity: an in vivo study using TIME. Medical and Biological Engineering and Computing, 2015, 53, 371-379.	2.8	18
553	Investigating the Interfacial Properties of Electrochemically Roughened Platinum Electrodes for Neural Stimulation. Langmuir, 2015, 31, 2593-2599.	3.5	45

#	ARTICLE	IF	CITATIONS
554	PEDOTâ€“CNT coated electrodes stimulate retinal neurons at low voltage amplitudes and low charge densities. Journal of Neural Engineering, 2015, 12, 016014.	3.5	71
555	Electrodes for electrical conduction block of the peripheral nerve. , 2015, , 215-229.		2
556	Activation and inhibition of retinal ganglion cells in response to epiretinal electrical stimulation: a computational modelling study. Journal of Neural Engineering, 2015, 12, 016002.	3.5	17
557	Large charge-storage-capacity iridium/ruthenium oxide coatings as promising material for neural stimulating electrodes. Materials Chemistry and Physics, 2015, 159, 119-127.	4.0	15
558	Optogenetic determination of the myocardial requirements for extrasystoles by cell type-specific targeting of ChannelRhodopsin-2. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E4495-504.	7.1	89
559	Sensing-enabled hippocampal deep brain stimulation in idiopathic nonhuman primate epilepsy. Journal of Neurophysiology, 2015, 113, 1051-1062.	1.8	9
560	Photoelectric artefact from optogenetics and imaging on microelectrodes and bioelectronics: new challenges and opportunities. Journal of Materials Chemistry B, 2015, 3, 4965-4978.	5.8	127
561	<i>In Vivo</i> and <i>In Vitro</i> Comparison of the Charge Injection Capacity of Platinum Macroelectrodes. IEEE Transactions on Biomedical Engineering, 2015, 62, 849-857.	4.2	63
562	Optogenetic versus Electrical Stimulation of Human Cardiomyocytes: Modeling Insights. Biophysical Journal, 2015, 108, 1934-1945.	0.5	60
563	Molecular design, synthesis, and characterization of conjugated polymers for interfacing electronic biomedical devices with living tissue. MRS Communications, 2015, 5, 131-152.	1.8	64
564	Burst-Modulated Waveforms Optimize Electrical Stimuli for Charge Efficiency and Fiber Selectivity. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 936-945.	4.9	29
565	Electrodes for Biopotential Recording and Tissue Stimulation. , 2015, , 25-76.		5
566	Soft Materials in Neuroengineering for Hard Problems in Neuroscience. Neuron, 2015, 86, 175-186.	8.1	251
567	Cell Culture Study Systems with Local Electrophysiological Effect Based on Single-Walled Carbon Nanotubes. Bio-Medical Engineering, 2015, 48, 283-287.	0.5	1
568	Implantable thin-film porous microelectrode array (P-MEA) for electrical stimulation of engineered cardiac tissues. Biochip Journal, 2015, 9, 85-94.	4.9	5
569	An Implantable Versatile Electrode-Driving ASIC for Chronic Epidural Stimulation in Rats. IEEE Transactions on Biomedical Circuits and Systems, 2015, 9, 387-400.	4.0	21
570	Electroactive biocompatible materials for nerve cell stimulation. Materials Research Express, 2015, 2, 042001.	1.6	16
571	Neuroprostheses for restoring hearing loss. , 2015, , 97-125.		0

#	ARTICLE	IF	CITATIONS
572	Introduction and fundamental requirements of neuroprostheses. , 2015, , 3-11.		2
573	Physiological principles of electrical stimulation. , 2015, , 13-43.		2
574	Design of electrodes for stimulation and recording. , 2015, , 59-93.		1
575	Conducting polymer electrodes for auditory brainstem implants. Journal of Materials Chemistry B, 2015, 3, 5021-5027.	5.8	34
576	Modeling sequence and quasi-uniform assumption in computational neurostimulation. Progress in Brain Research, 2015, 222, 1-23.	1.4	51
577	Effects of frequency-dependent membrane capacitance on neural excitability. Journal of Neural Engineering, 2015, 12, 056015.	3.5	27
578	Extending Phase Reduction to Excitable Media: Theory and Applications. SIAM Review, 2015, 57, 201-222.	8.4	29
579	neuroBi: A Highly Configurable Neurostimulator for a Retinal Prosthesis and Other Applications. IEEE Journal of Translational Engineering in Health and Medicine, 2015, 3, 1-11.	3.7	14
580	Modeling the effects of electrode recessing on electrochemical safety in cochlear implant electrodes. , 2015, , .		0
581	Design and <i>in vivo</i> evaluation of more efficient and selective deep brain stimulation electrodes. Journal of Neural Engineering, 2015, 12, 046030.	3.5	35
582	Interpulse multifrequency electrical impedance measurements during electroporation of adherent differentiated myotubes. Bioelectrochemistry, 2015, 105, 123-135.	4.6	25
583	Optogenetic pacing in <i>Drosophila melanogaster</i> . Science Advances, 2015, 1, e1500639.	10.3	50
584	An implantable high-voltage cortical stimulator for post-stroke rehabilitation enhancement with high-current driving capacity. , 2015, , .		2
585	Dynamically adjusted, scalable electrical stimulator for excitable tissue. , 2015, , .		5
586	Biofunctionalized Conducting Polymer/Carbon Microfiber Electrodes for Ultrasensitive Neural Recordings. ACS Applied Materials & Interfaces, 2015, 7, 27016-27026.	8.0	34
587	The Rationale Driving the Evolution of Deep Brain Stimulation to Constant-Current Devices. Neuromodulation, 2015, 18, 85-89.	0.8	73
588	Suppression of putative tinnitus-related activity by extra-cochlear electrical stimulation. Journal of Neurophysiology, 2015, 113, 132-143.	1.8	15
589	“Beauty is a light in the heart”: The transformative potential of optogenetics for clinical applications in cardiovascular medicine ¹ . Trends in Cardiovascular Medicine, 2015, 25, 73-81.	4.9	32

#	ARTICLE	IF	CITATIONS
590	Optimizing the Electrical Stimulation of Retinal Ganglion Cells. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 169-178.	4.9	40
591	A neuron model of stochastic resonance using rectangular pulse trains. Journal of Computational Neuroscience, 2015, 38, 53-66.	1.0	12
592	Modeling and Simulations in Time Domain of a Stimulation Set-up for Cortical Applications. European Journal of Translational Myology, 2016, 26, 6017.	1.7	2
593	The Appearance of Phosphenes Elicited Using a Suprachoroidal Retinal Prosthesis. , 2016, 57, 4948.		51
594	Interface Circuits. , 2016, , .		1
595	Nanobiomaterials for bionic eye. , 2016, , 257-285.		5
596	Identifying a Safe Range of Stimulation Current for Intraoperative Neuromonitoring of the Recurrent Laryngeal Nerve. Chinese Medical Journal, 2016, 129, 1830-1834.	2.3	2
597	Intraoperative Neurophysiological Monitoring in Neuro-oncology. , 0, , .		4
598	Designing Closed-Loop Brain-Machine Interfaces Using Model Predictive Control. Technologies, 2016, 4, 18.	5.1	0
599	Stimulation of Baroresponsive Parts of the Nucleus of the Solitary Tract Produces Nitric Oxide-mediated Choroidal Vasodilation in Rat Eye. Frontiers in Neuroanatomy, 2016, 10, 94.	1.7	6
600	Mapping Horizontal Spread of Activity in Monkey Motor Cortex Using Single Pulse Microstimulation. Frontiers in Neural Circuits, 2016, 10, 104.	2.8	35
601	Model-Based Comparison of Deep Brain Stimulation Array Functionality with Varying Number of Radial Electrodes and Machine Learning Feature Sets. Frontiers in Computational Neuroscience, 2016, 10, 58.	2.1	33
602	Tractography Activation Patterns in Dorsolateral Prefrontal Cortex Suggest Better Clinical Responses in OCD DBS. Frontiers in Neuroscience, 2015, 9, 519.	2.8	56
603	Boron-Doped Nanocrystalline Diamond Electrodes for Neural Interfaces: In vivo Biocompatibility Evaluation. Frontiers in Neuroscience, 2016, 10, 87.	2.8	38
604	Can Nanofluidic Chemical Release Enable Fast, High Resolution Neurotransmitter-Based Neurostimulation?. Frontiers in Neuroscience, 2016, 10, 138.	2.8	8
605	Direct Growth of Carbon Nanotubes on New High-Density 3D Pyramid-Shaped Microelectrode Arrays for Brain-Machine Interfaces. Micromachines, 2016, 7, 163.	2.9	4
606	Prognostic Values of Motor Evoked Potentials in Insular, Precentral, or Postcentral Resections. Journal of Clinical Neurophysiology, 2016, 33, 51-59.	1.7	10
607	Cutaneous Recording and Stimulation of Muscles Using Organic Electronic Textiles. Advanced Healthcare Materials, 2016, 5, 2001-2006.	7.6	30

#	ARTICLE	IF	CITATIONS
608	Transcranial direct current stimulation improves seizure control in patients with Rasmussen encephalitis. <i>Epileptic Disorders</i> , 2016, 18, 58-66.	1.3	31
609	Mechanisms for Imparting Conductivity to Nonconductive Polymeric Biomaterials. <i>Macromolecular Bioscience</i> , 2016, 16, 1103-1121.	4.1	12
610	Electrically Conductive Materials for Nerve Regeneration. , 2016, , 145-179.		2
611	Neural Engineering. , 2016, , .		8
612	Organic Bioelectronics: Bridging the Signaling Gap between Biology and Technology. <i>Chemical Reviews</i> , 2016, 116, 13009-13041.	47.7	422
613	Vagus nerve stimulation: state of the art of stimulation and recording strategies to address autonomic function neuromodulation. <i>Journal of Neural Engineering</i> , 2016, 13, 041002.	3.5	74
614	High-Frequency Stimulation of Dorsal Column Axons: Potential Underlying Mechanism of Paresthesia-Free Neuropathic Pain Relief. <i>Neuromodulation</i> , 2016, 19, 385-397.	0.8	81
615	Epidural and transcutaneous spinal electrical stimulation for restoration of movement after incomplete and complete spinal cord injury. <i>Current Opinion in Neurology</i> , 2016, 29, 721-726.	3.6	40
616	Investigation of residual Ag amount into human body using Ag/AgCl electrodes during IBC. , 2016, , .		0
617	Robust modulation of arousal regulation, performance, and frontostriatal activity through central thalamic deep brain stimulation in healthy nonhuman primates. <i>Journal of Neurophysiology</i> , 2016, 116, 2383-2404.	1.8	72
618	Chapter 2 Biophysical Fundamentals of Neural Excitation. , 2016, , 25-50.		0
619	An evaluation of extracellular MEA versus optogenetic stimulation of cortical neurons. <i>Biomedical Physics and Engineering Express</i> , 2016, 2, 055017.	1.2	12
620	Biphasic micro-LED driver for optogenetics. , 2016, , .		5
621	Minimally invasive implantable fetal micropacemaker: mechanical testing and technical refinements. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1819-1830.	2.8	8
622	Oxygen evolution activity and stability of iridium in acidic media. Part 1. “Metallic iridium. <i>Journal of Electroanalytical Chemistry</i> , 2016, 773, 69-78.	3.8	159
623	Retinal stimulation strategies to restore vision: Fundamentals and systems. <i>Progress in Retinal and Eye Research</i> , 2016, 53, 21-47.	15.5	207
624	Tolerability of Repeated Application of Transcranial Electrical Stimulation with Limited Outputs to Healthy Subjects. <i>Brain Stimulation</i> , 2016, 9, 740-754.	1.6	38
625	Letter to the Editor: Electric current application for motor tract mapping. <i>Journal of Neurosurgery</i> , 2016, 124, 1881-1883.	1.6	4

#	ARTICLE	IF	CITATIONS
626	Artificial feedback for invasive brain-computer interfaces. Human Physiology, 2016, 42, 111-118.	0.4	0
627	Modeling the Activation of Neural Cells. Analog Circuits and Signal Processing Series, 2016, , 11-24.	0.3	0
628	Efficacy of High Frequency Switched-Mode Neural Stimulation. Analog Circuits and Signal Processing Series, 2016, , 49-64.	0.3	0
629	Safety assessment of epidural wire electrodes for cough production in a chronic pig model of spinal cord injury. Journal of Neuroscience Methods, 2016, 268, 98-105.	2.5	11
630	Conductive hybrid carbon nanotube (CNT)-polythiophene coatings for innovative auditory neuron-multi-electrode array interfacing. RSC Advances, 2016, 6, 41714-41723.	3.6	13
631	Intermediate multimedia node: Implantable spinal cord stimulator. Journal of Visual Communication and Image Representation, 2016, 41, 15-20.	2.8	4
632	Electrical neurostimulation with imbalanced waveform mitigates dissolution of platinum electrodes. Journal of Neural Engineering, 2016, 13, 054001.	3.5	22
633	Eliciting naturalistic cortical responses with a sensory prosthesis via optimized microstimulation. Journal of Neural Engineering, 2016, 13, 056007.	3.5	24
637	Residual rubber shielded multi walled carbon nanotube electrodes for neural interfacing in active medical implants. Physics in Medicine, 2016, 1, 8-19.	1.3	12
638	Clinical Research and Methodological Aspects for tDCS Research. , 2016, , 393-404.		4
639	High-throughput in vitro assay to evaluate the cytotoxicity of liberated platinum compounds for stimulating neural electrodes. Journal of Neuroscience Methods, 2016, 273, 1-9.	2.5	15
640	Electronic approaches to restoration of sight. Reports on Progress in Physics, 2016, 79, 096701.	20.1	93
642	Electrical stimulation enhances the acetylcholine receptors available for neuromuscular junction formation. Acta Biomaterialia, 2016, 45, 328-339.	8.3	15
643	Conducting Polymers: Developments. , 2016, , 1997-2010.		0
644	Animal models of transcranial direct current stimulation: Methods and mechanisms. Clinical Neurophysiology, 2016, 127, 3425-3454.	1.5	224
645	Animal Studies in the Field of Transcranial Electric Stimulation. , 2016, , 67-83.		3
646	Optimizing growth and post treatment of diamond for high capacitance neural interfaces. Biomaterials, 2016, 104, 32-42.	11.4	45
647	The effect of transcranial direct current stimulation on seizure frequency of patients with mesial temporal lobe epilepsy with hippocampal sclerosis. Clinical Neurology and Neurosurgery, 2016, 149, 27-32.	1.4	48

#	ARTICLE	IF	CITATIONS
648	Characterization of nerve-cuff electrode interface for biocompatible and chronic stimulating application. <i>Sensors and Actuators B: Chemical</i> , 2016, 237, 924-934.	7.8	38
649	High frequency self-oscillating current switching for a fully integrated fail-safe stimulator output stage. , 2016, , .		1
650	Heparin-immobilized gold-assisted controlled release of growth factors via electrochemical modulation. <i>RSC Advances</i> , 2016, 6, 88038-88041.	3.6	5
651	Effective parameters on conductivity of mineralized carbon nanofibers: an investigation using artificial neural networks. <i>RSC Advances</i> , 2016, 6, 111908-111918.	3.6	31
652	Iridium Oxide–Electrodeposited Nanoporous Gold Multielectrode Array with Enhanced Stimulus Efficacy. <i>Nano Letters</i> , 2016, 16, 7163-7168.	9.1	22
653	Electrical Identification and Selective Microstimulation of Neuronal Compartments Based on Features of Extracellular Action Potentials. <i>Scientific Reports</i> , 2016, 6, 31332.	3.3	51
654	Bioelectric Medicine and Devices for the Treatment of Spinal Cord Injury. <i>Cells Tissues Organs</i> , 2016, 202, 6-22.	2.3	5
655	Flexible, biocompatible, highly scalable, high charge density 3D Microelectrode arrays. , 2016, , .		1
656	Electron transfer processes occurring on platinum neural stimulating electrodes: pulsing experiments for cathodic-first/charge-balanced/biphasic pulses for 0.566 μs \times 2.3 in oxygenated and deoxygenated sulfuric acid. <i>Journal of Neural Engineering</i> , 2016, 13, 056001.	3.5	11
657	Transient photoresponse of nitrogen-doped ultrananocrystalline diamond electrodes in saline solution. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	8
658	Deep brain stimulation: increasing efficiency by alternative waveforms. <i>Current Directions in Biomedical Engineering</i> , 2016, 2, 145-148.	0.4	2
659	A Bionic Test-Bed for Sensing and Balance Augmentation in Biological Applications. , 2016, , .		1
660	An active charge balancing method based on self-oscillation of the anodic current. , 2016, , .		7
661	System-on-a-chip Brain-Machine-Interface design - a review and perspective. , 2016, , .		4
662	Synergistic effect of exogeneous and endogeneous electrostimulation on osteogenic differentiation of human mesenchymal stem cells seeded on silk scaffolds. <i>Journal of Orthopaedic Research</i> , 2016, 34, 581-590.	2.3	10
663	A wireless system for gastric slow wave acquisition and gastric electrical stimulation. , 2016, , .		5
664	Chronic pudendal neuromodulation using an implantable microstimulator improves voiding function in diabetic rats. <i>Journal of Neural Engineering</i> , 2016, 13, 046001.	3.5	9
665	Safety of Transcranial Direct Current Stimulation: Evidence Based Update 2016. <i>Brain Stimulation</i> , 2016, 9, 641-661.	1.6	971

#	ARTICLE	IF	CITATIONS
666	Stimulation artifact correction method for estimation of early cortico-cortical evoked potentials. Journal of Neuroscience Methods, 2016, 264, 94-102.	2.5	38
667	High-voltage compliant microelectrode array drivers for intracortical microstimulation. International Journal of Circuit Theory and Applications, 2016, 44, 660-682.	2.0	3
668	Optimal Vagus Nerve Stimulation Frequency for Suppression of Spike-and-Wave Seizures in Rats. Artificial Organs, 2016, 40, E120-7.	1.9	15
669	Engineering Stem Cells for Biomedical Applications. Advanced Healthcare Materials, 2016, 5, 10-55.	7.6	25
670	An Embedded Deep Brain Stimulator for Biphasic Chronic Experiments in Freely Moving Rodents. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 72-84.	4.0	34
671	The Effects of Stimulation Strategy on Joint Movement Elicited by Intraspinal Microstimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 794-805.	4.9	4
672	Computational modeling of neurons: intensity-duration relationship of extracellular electrical stimulation for changes in intracellular calcium. Journal of Neurophysiology, 2016, 115, 602-616.	1.8	7
673	A high power efficient multi-waveform current stimulator used in implantable neural stimulation. Analog Integrated Circuits and Signal Processing, 2016, 86, 459-469.	1.4	6
674	Tissue damage thresholds during therapeutic electrical stimulation. Journal of Neural Engineering, 2016, 13, 021001.	3.5	258
675	Analysis of the Peak Resistance Frequency Method. IEEE Transactions on Biomedical Engineering, 2016, 63, 2086-2094.	4.2	3
676	The difference between electrical microstimulation and direct electrical stimulation “towards new opportunities for innovative functional brain mapping?”. Reviews in the Neurosciences, 2016, 27, 231-258.	2.9	25
677	A technical guide to tDCS, and related non-invasive brain stimulation tools. Clinical Neurophysiology, 2016, 127, 1031-1048.	1.5	998
678	Sputtered iridium oxide modified flexible parylene microelectrodes array for electrical recording and stimulation of muscles. Sensors and Actuators B: Chemical, 2016, 225, 267-278.	7.8	19
679	Mapping of bionic array electric field focusing in plasmid DNA-based gene electrotransfer. Gene Therapy, 2016, 23, 369-379.	4.5	11
680	Resistance to protein adsorption and adhesion of fibroblasts on nanocrystalline diamond films: the role of topography and boron doping. Journal of Materials Science: Materials in Medicine, 2016, 27, 90.	3.6	15
681	Battery-less Tri-band-Radio Neuro-monitor and Responsive Neurostimulator for Diagnostics and Treatment of Neurological Disorders. IEEE Journal of Solid-State Circuits, 2016, 51, 1274-1289.	5.4	85
682	A High-Voltage-Tolerant and Precise Charge-Balanced Neuro-Stimulator in Low Voltage CMOS Process. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 1087-1099.	4.0	48
683	A critical review of cell culture strategies for modelling intracortical brain implant material reactions. Biomaterials, 2016, 91, 23-43.	11.4	33

#	ARTICLE	IF	CITATIONS
684	Close-Packed Silicon Microelectrodes for Scalable Spatially Oversampled Neural Recording. IEEE Transactions on Biomedical Engineering, 2016, 63, 120-130.	4.2	168
685	The Principle of the Micro-Electronic Neural Bridge and a Prototype System Design. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 180-191.	4.9	10
686	Electrode-Tissue Interface During a Stimulation Cycle. Analog Circuits and Signal Processing Series, 2016, , 25-47.	0.3	0
687	Approaches to a cortical vision prosthesis: implications of electrode size and placement. Journal of Neural Engineering, 2016, 13, 025003.	3.5	20
688	Modification of surface/neuron interfaces for neural cell-type specific responses: a review. Biomedical Materials (Bristol), 2016, 11, 014108.	3.3	17
689	Design of Efficient and Safe Neural Stimulators. Analog Circuits and Signal Processing Series, 2016, , .	0.3	11
690	Electro-optical Neural Platform Integrated with Nanoplasmonic Inhibition Interface. ACS Nano, 2016, 10, 4274-4281.	14.6	68
691	Modified PEDOT by benign preparing N-doped reduced graphene oxide as potential bio-electrode coating material. Green Chemistry, 2016, 18, 1731-1737.	9.0	21
692	Spatiotemporal dynamics of cortical perfusion in response to thalamic deep brain stimulation. NeuroImage, 2016, 126, 131-139.	4.2	14
693	Does a coupling capacitor enhance the charge balance during neural stimulation? An empirical study. Medical and Biological Engineering and Computing, 2016, 54, 93-101.	2.8	14
694	Characterization of high capacitance electrodes for the application of direct current electrical nerve block. Medical and Biological Engineering and Computing, 2016, 54, 191-203.	2.8	30
695	A comparative study of the effects of pulse parameters for intracranial direct electrical stimulation in epilepsy. Clinical Neurophysiology, 2016, 127, 91-101.	1.5	51
696	A CMOS Current Steering Neurostimulation Array With Integrated DAC Calibration and Charge Balancing. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 324-335.	4.0	34
697	Ceramic-Based Multisite Platinum Microelectrode Arrays: Morphological Characteristics and Electrochemical Performance for Extracellular Oxygen Measurements in Brain Tissue. Analytical Chemistry, 2017, 89, 1674-1683.	6.5	29
698	Stimulation of the human medial temporal lobe between learning and recall selectively enhances forgetting. Brain Stimulation, 2017, 10, 645-650.	1.6	45
699	Short-term electrostimulation enhancing neural repair in vitro using large charge capacity nanostructured electrodes. Applied Materials Today, 2017, 6, 29-43.	4.3	17
700	Bringing new dimensions to drug discovery screening: impact of cellular stimulation technologies. Drug Discovery Today, 2017, 22, 1045-1055.	6.4	16
701	Carbon nanotube growth inhibition in floating catalyst based chemical vapor deposition and its application in flexible circuit fabrication. Carbon, 2017, 116, 40-49.	10.3	9

#	ARTICLE	IF	CITATIONS
702	Higher-order power harmonics of pulsed electrical stimulation modulates corticospinal contribution of peripheral nerve stimulation. Scientific Reports, 2017, 7, 43619.	3.3	8
703	Safety of repetitive transcranial magnetic stimulation in patients with implanted cortical electrodes. An ex-vivo study and report of a case. Clinical Neurophysiology, 2017, 128, 1109-1115.	1.5	10
704	Organic bioelectronics in medicine. Journal of Internal Medicine, 2017, 282, 24-36.	6.0	35
705	Safety parameter considerations of anodal transcranial Direct Current Stimulation in rats. Brain, Behavior, and Immunity, 2017, 64, 152-161.	4.1	72
706	Efficient Four-Coil Wireless Power Transfer for Deep Brain Stimulation. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 2496-2507.	4.6	59
707	Electrical Stimulation of Artificial Heart Muscle: A Look Into the Electrophysiologic and Genetic Implications. ASAIO Journal, 2017, 63, 333-341.	1.6	14
708	Impedance Spectroscopy of Spinâ€Cast and Electrochemically Deposited PEDOT:PSS Films on Microfabricated Electrodes with Various Areas. ChemElectroChem, 2017, 4, 2321-2327.	3.4	81
709	Model-guided control of hippocampal discharges by local direct current stimulation. Scientific Reports, 2017, 7, 1708.	3.3	10
710	Effects of chronic abdominal vagal stimulation of small-diameter neurons on brain metabolism and food intake. Brain Stimulation, 2017, 10, 735-743.	1.6	11
711	Low intensity transcranial electric stimulation: Safety, ethical, legal regulatory and application guidelines. Clinical Neurophysiology, 2017, 128, 1774-1809.	1.5	783
712	Hemodynamic responses to magnetic stimulation of carotid sinus in normotensive rabbits. Journal of Hypertension, 2017, 35, 1676-1684.	0.5	4
713	Neural interfaces engineered via micro- and nanostructured coatings. Nano Today, 2017, 14, 59-83.	11.9	60
714	Towards closed-loop neuromodulation: a wirelessâ€miniaturized neural implant SoC. , 2017, 10194, .		2
715	Embedded System for Prosthetic Control Using Implanted Neuromuscular Interfaces Accessed Via an Osseointegrated Implant. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 867-877.	4.0	73
716	Optimization of Interphase Intervals to Enhance the Evoked Muscular Responses of Transcutaneous Neuromuscular Electrical Stimulation. Artificial Organs, 2017, 41, 1145-1152.	1.9	9
717	Noninvasive Deep Brain Stimulation via Temporally Interfering Electric Fields. Cell, 2017, 169, 1029-1041.e16.	28.9	536
718	Factors Influencing Current Flow Through the Skin during Transcranial Electrical Stimulation: Role of Waveform, Tissue Properties, and Macro-Pores. Brain Stimulation, 2017, 10, e16.	1.6	0
719	Design of integrated neural stimulating and recording frontend for bladder control prosthesis. Analog Integrated Circuits and Signal Processing, 2017, 91, 403-416.	1.4	5

#	ARTICLE	IF	CITATIONS
720	Electrodeposited Iridium Oxide on Platinum Nanocones for Improving Neural Stimulation Microelectrodes. <i>Electrochimica Acta</i> , 2017, 237, 152-159.	5.2	45
721	Psychophysical correspondence between vibrotactile intensity and intracortical microstimulation for tactile neuroprostheses in rats. <i>Journal of Neural Engineering</i> , 2017, 14, 016010.	3.5	14
722	Intraoperative direct cortical stimulation motor evoked potentials: Stimulus parameter recommendations based on rheobase and chronaxie. <i>Clinical Neurophysiology</i> , 2017, 128, 2300-2308.	1.5	24
723	Thinking Small: Progress on Microscale Neurostimulation Technology. <i>Neuromodulation</i> , 2017, 20, 745-752.	0.8	55
724	Recent advances in neural electrode-tissue interfaces. <i>Current Opinion in Biomedical Engineering</i> , 2017, 4, 21-31.	3.4	76
725	How to consider animal data in tDCS safety standards. <i>Brain Stimulation</i> , 2017, 10, 1141-1142.	1.6	10
726	Design of sEMG assembly to detect external anal sphincter activity: a proof of concept. <i>Physiological Measurement</i> , 2017, 38, L17-L27.	2.1	2
727	Optogenetic approach for targeted activation of global calcium transients in differentiated C2C12 myotubes. <i>Scientific Reports</i> , 2017, 7, 11108.	3.3	15
728	16-Channel biphasic current-mode programmable charge balanced neural stimulation. <i>BioMedical Engineering OnLine</i> , 2017, 16, 104.	2.7	5
729	Spot light on skeletal muscles: optogenetic stimulation to understand and restore skeletal muscle function. <i>Journal of Muscle Research and Cell Motility</i> , 2017, 38, 331-337.	2.0	9
730	Frequency-dependent drug screening using optogenetic stimulation of human iPSC-derived cardiomyocytes. <i>Scientific Reports</i> , 2017, 7, 9629.	3.3	53
732	A Digitally Dynamic Power Supply Technique for 16-Channel 12 V-Tolerant Stimulator Realized in a 0.18- μ m 1.8-V/3.3-V Low-Voltage CMOS Process. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2017, 11, 1087-1096.	4.0	23
733	Electrophysiological brain mapping: Basics of recording evoked potentials induced by electrical stimulation and its physiological spreading in the human brain. <i>Clinical Neurophysiology</i> , 2017, 128, 1886-1890.	1.5	25
734	Closed-loop deep brain stimulation by pulsatile delayed feedback with increased gap between pulse phases. <i>Scientific Reports</i> , 2017, 7, 1033.	3.3	53
735	Fractal Electrodes as a Generic Interface for Stimulating Neurons. <i>Scientific Reports</i> , 2017, 7, 6717.	3.3	19
736	Glial responses to implanted electrodes in the brain. <i>Nature Biomedical Engineering</i> , 2017, 1, 862-877.	22.5	402
737	A Wireless, Bidirectional Interface for In Vivo Recording and Stimulation of Neural Activity in Freely Behaving Rats. <i>Journal of Visualized Experiments</i> , 2017, , .	0.3	10
738	Conductive and Insulative Materials. <i>Series on Bioengineering and Biomedical Engineering</i> , 2017, , 240-258.	0.1	1

#	ARTICLE	IF	CITATIONS
739	Peripheral Nerve Stimulation. Series on Bioengineering and Biomedical Engineering, 2017, , 300-347.	0.1	2
740	Central Nervous System Stimulation. Series on Bioengineering and Biomedical Engineering, 2017, , 348-376.	0.1	0
741	CNS Recording: Devices and Techniques. Series on Bioengineering and Biomedical Engineering, 2017, , 467-488.	0.1	0
742	Visual Prostheses. Series on Bioengineering and Biomedical Engineering, 2017, , 631-667.	0.1	1
743	Gastric and Cardio-Vascular Muscle Stimulation. Series on Bioengineering and Biomedical Engineering, 2017, , 870-887.	0.1	0
744	Optical Stimulation Effects on TiO ₂ Sensor Dielectric Used in Capacitively-Coupled High-Density CMOS Microelectrode Array. IEEE Electron Device Letters, 2017, 38, 967-970.	3.9	15
745	Design and analysis of energy recyclable bidirectional converter with digital controller for multichannel microstimulators. Analog Integrated Circuits and Signal Processing, 2017, 91, 417-431.	1.4	0
746	Increased functional connectivity one week after motor learning and tDCS in stroke patients. Neuroscience, 2017, 340, 424-435.	2.3	53
747	Carbon nanotube electrodes for retinal implants: A study of structural and functional integration over time. Biomaterials, 2017, 112, 108-121.	11.4	39
748	Continuous Direct Current Nerve Block Using Multi Contact High Capacitance Electrodes. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 517-529.	4.9	31
749	Silicon-Integrated High-Density Electro cortical Interfaces. Proceedings of the IEEE, 2017, 105, 11-33.	21.3	68
750	Will cardiac optogenetics find the way through the obscure angles of heart physiology?. Biochemical and Biophysical Research Communications, 2017, 482, 515-523.	2.1	15
751	Artificial Vision. , 2017, , .		11
752	A cost-effective fabrication of iridium oxide films as biocompatible electrostimulation electrodes for neural interface applications. Journal of Alloys and Compounds, 2017, 692, 339-345.	5.5	38
753	Framework for the Development of Neuroprostheses: From Basic Understanding by Sciatic and Median Nerves Models to Bionic Legs and Hands. Proceedings of the IEEE, 2017, 105, 34-49.	21.3	71
754	Iontophoresis instrumentation for the enhancement of gene therapy in wound healing. , 2017, , .		0
755	Advances in closed-loop deep brain stimulation devices. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 79.	4.6	158
756	Safe Direct Current Stimulator design for reduced power consumption and increased reliability. , 2017, 2017, 1082-1085.		9

#	ARTICLE	IF	CITATIONS
757	An IC-based controllable stimulator for respiratory muscle stimulation investigations. , 2017, 2017, 1970-1973.		6
758	Exploring the potential of ionic bipolar diodes for chemical neural interfaces. Soft Matter, 2017, 13, 8171-8177.	2.7	18
759	1.29 Electroactive Polymeric Biomaterials â††. , 2017, , 664-687.		1
760	Electronics for a safe direct current stimulator. , 2017, 2017, .		5
761	Advancing coil design in micromagnetic brain stimulation. , 2017, , .		2
762	Current generation circuit to functional electrical stimulate foot-drop patients. , 2017, , .		2
763	Scaling Effects on the Electrochemical Stimulation Performance of Au, Pt, and PEDOT:PSS Electrocorticography Arrays. Advanced Functional Materials, 2017, 27, 1703019.	14.9	61
764	Implementation of a Charge-Controlled Stimulation Method in a Monolithic Integrated CMOS-Chip for Excitation of Retinal Neuron Cells. , 2017, , .		3
765	A multi-sensor and parallel processing SoC for wearable and implantable telemetry systems. , 2017, , .		11
766	5 Allgemeine biophysikalische Aspekte zur Erregbarkeit neuronaler Strukturen und Stromausbreitung im Gewebe. , 2017, , 64-72.		0
767	Modulation of Brain Activity with Noninvasive Transcranial Direct Current Stimulation (tDCS): Clinical Applications and Safety Concerns. Frontiers in Psychology, 2017, 8, 685.	2.1	90
768	Electromyographic bridge for promoting the recovery of hand movements in subacute stroke patients: A randomized controlled trial. Journal of Rehabilitation Medicine, 2017, 49, 629-636.	1.1	13
769	Frequency-Dependent Multi-Well Cardiotoxicity Screening Enabled by Optogenetic Stimulation. International Journal of Molecular Sciences, 2017, 18, 2634.	4.1	26
770	Concept and Development of an Electronic Framework Intended for Electrode and Surrounding Environment Characterization In Vivo. Sensors, 2017, 17, 59.	3.8	3
771	Theta-burst microstimulation in the human entorhinal area improves memory specificity. ELife, 2017, 6, .	6.0	83
772	Computational Stimulation of the Basal Ganglia Neurons with Cost Effective Delayed Gaussian Waveforms. Frontiers in Computational Neuroscience, 2017, 11, 73.	2.1	26
773	Anatomical Parameters of tDCS to Modulate the Motor System after Stroke: A Review. Frontiers in Neurology, 2017, 8, 29.	2.4	59
774	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

#	ARTICLE	IF	CITATIONS
775	Invasive Intraneural Interfaces: Foreign Body Reaction Issues. <i>Frontiers in Neuroscience</i> , 2017, 11, 497.	2.8	81
776	Visual Prosthesis: Interfacing Stimulating Electrodes with Retinal Neurons to Restore Vision. <i>Frontiers in Neuroscience</i> , 2017, 11, 620.	2.8	44
777	A Review on Human Body Communication: Signal Propagation Model, Communication Performance, and Experimental Issues. <i>Wireless Communications and Mobile Computing</i> , 2017, 2017, 1-15.	1.2	44
778	7.32 Engineering the Neural Interface. , 2017, , 642-660.		4
779	Auditory steady state responses and cochlear implants: Modeling the artifact-response mixture in the perspective of denoising. <i>PLoS ONE</i> , 2017, 12, e0174462.	2.5	5
780	A microstimulator with parameter adjustment for bladder dysfunction. , 2017, , .		1
781	Flexible and Organic Neural Interfaces: A Review. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 1292.	2.5	42
782	Power amplifier circuits for functional electrical stimulation systems. <i>Research on Biomedical Engineering</i> , 2017, 33, 144-155.	2.2	12
783	Toward true closed-loop neuromodulation: artifact-free recording during stimulation. <i>Current Opinion in Neurobiology</i> , 2018, 50, 119-127.	4.2	86
784	Design and validation of a foldable and photovoltaic wide-field epiretinal prosthesis. <i>Nature Communications</i> , 2018, 9, 992.	12.8	128
785	Kilohertz Electrical Stimulation Nerve Conduction Block: Effects of Electrode Material. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 11-17.	4.9	6
786	Vapor deposition of polyionic nanocoatings for reduction of microglia adhesion. <i>RSC Advances</i> , 2018, 8, 4779-4785.	3.6	15
787	High-density Stretchable Electrode Grids for Chronic Neural Recording. <i>Advanced Materials</i> , 2018, 30, e1706520.	21.0	211
788	Reversible conduction block in peripheral nerve using electrical waveforms. <i>Bioelectronics in Medicine</i> , 2018, 1, 39-54.	2.0	18
789	Defining the ionic mechanisms of optogenetic control of vascular tone by channelrhodopsin-2. <i>British Journal of Pharmacology</i> , 2018, 175, 2028-2045.	5.4	12
790	A Multi-Sensor and Parallel Processing SoC for Miniaturized Medical Instrumentation. <i>IEEE Journal of Solid-State Circuits</i> , 2018, 53, 2076-2087.	5.4	64
791	Nitrogen-doped graphene combined with bioactive conducting polymer: An ideal platform for neural interface. <i>Polymer Engineering and Science</i> , 2018, 58, 1548-1554.	3.1	0
792	Nanowires for biomedical applications. , 2018, , 95-111.		4

#	ARTICLE	IF	CITATIONS
793	Fractal form PEDOT/Au assemblies as thin-film neural interface materials. Biomedical Materials (Bristol), 2018, 13, 054102.	3.3	24
794	Differential expression of voltage-gated sodium channels in afferent neurons renders selective neural block by ionic direct current. Science Advances, 2018, 4, eaaq1438.	10.3	30
795	Conformal deposition of Pt on titania nanotubes to produce a bio-electrode for neuro-stimulating applications. Electrochemistry Communications, 2018, 88, 61-66.	4.7	8
796	Ionotactile Stimulation: Nonvolatile Ionic Gels for Human-Machine Interfaces. ACS Omega, 2018, 3, 662-666.	3.5	24
797	Characterization of the stimulus waveforms generated by implantable pulse generators for deep brain stimulation. Clinical Neurophysiology, 2018, 129, 731-742.	1.5	32
798	1024-Pixel CMOS Multimodality Joint Cellular Sensor/Stimulator Array for Real-Time Holistic Cellular Characterization and Cell-Based Drug Screening. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 80-94.	4.0	48
799	An evaluation of the effect of pulse-shape on grey and white matter stimulation in the rat brain. Scientific Reports, 2018, 8, 752.	3.3	11
800	Advantages of soft subdural implants for the delivery of electrochemical neuromodulation therapies to the spinal cord. Journal of Neural Engineering, 2018, 15, 026024.	3.5	41
801	Computationally optimized ECoG stimulation with local safety constraints. NeuroImage, 2018, 173, 35-48.	4.2	11
802	Challenges associated with nerve conduction block using kilohertz electrical stimulation. Journal of Neural Engineering, 2018, 15, 031002.	3.5	27
803	ERAASR: an algorithm for removing electrical stimulation artifacts from multielectrode array recordings. Journal of Neural Engineering, 2018, 15, 026020.	3.5	38
804	Paradigms for restoration of somatosensory feedback via stimulation of the peripheral nervous system. Clinical Neurophysiology, 2018, 129, 851-862.	1.5	60
805	Electrical Neural Stimulation and Simultaneous <i>in Vivo</i> Monitoring with Transparent Graphene Electrode Arrays Implanted in GCaMP6f Mice. ACS Nano, 2018, 12, 148-157.	14.6	127
806	Programmable Hydrogel Ionic Circuits for Biologically Matched Electronic Interfaces. Advanced Materials, 2018, 30, e1800598.	21.0	98
807	Recovery of early neural spikes from stimulation electrodes using a DC-coupled low gain high resolution data acquisition system. Journal of Neuroscience Methods, 2018, 304, 118-125.	2.5	4
808	Increasing Electrical Stimulation Efficacy in Degenerated Retina: Stimulus Waveform Design in a Multiscale Computational Model. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 1111-1120.	4.9	30
809	Rational design of silicon structures for optically controlled multiscale biointerfaces. Nature Biomedical Engineering, 2018, 2, 508-521.	22.5	183
810	Toward an Energy-Efficient High-Voltage Compliant Visual Intracortical Multichannel Stimulator. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2018, 26, 878-891.	3.1	7

#	ARTICLE	IF	CITATIONS
811	Toward adaptive deep brain stimulation in Parkinson's disease: a review. Neurodegenerative Disease Management, 2018, 8, 115-136.	2.2	9
812	Measuring the effective area and charge density of platinum electrodes for bionic devices. Journal of Neural Engineering, 2018, 15, 046015.	3.5	30
813	A Miniature Configurable Wireless System for Recording Gastric Electrophysiological Activity and Delivering High-Energy Electrical Stimulation. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 221-229.	3.6	34
814	Development and Translation of PEDOT:PSS Microelectrodes for Intraoperative Monitoring. Advanced Functional Materials, 2018, 28, 1700232.	14.9	97
815	Minimal Heating at the Skin Surface During Transcranial Direct Current Stimulation. Neuromodulation, 2018, 21, 334-339.	0.8	17
816	Neuroâ€Nano Interfaces: Utilizing Nanoâ€Coatings and Nanoparticles to Enable Nextâ€Generation Electrophysiological Recording, Neural Stimulation, and Biochemical Modulation. Advanced Functional Materials, 2018, 28, 1700239.	14.9	38
817	Nanotechnology and Nanomaterials for Improving Neural Interfaces. Advanced Functional Materials, 2018, 28, 1700905.	14.9	56
818	A Materials Roadmap to Functional Neural Interface Design. Advanced Functional Materials, 2018, 28, 1701269.	14.9	266
819	Direct electrodeposition of Graphene enhanced conductive polymer on microelectrode for biosensing application. Biosensors and Bioelectronics, 2018, 99, 99-107.	10.1	31
820	Neural Stimulator Design. , 2018, , 103-135.		0
821	Bidirectional Neural Interface and Closed-Loop Control. , 2018, , 137-164.		0
822	Fractional models in electrical impedance spectroscopy data for glucose detection. Biomedical Signal Processing and Control, 2018, 40, 180-191.	5.7	6
823	Unraveling the mechanistic effects of electric field stimulation towards directing stem cell fate and function: A tissue engineering perspective. Biomaterials, 2018, 150, 60-86.	11.4	246
824	Living Bioelectronics: Strategies for Developing an Effective Longâ€Term Implant with Functional Neural Connections. Advanced Functional Materials, 2018, 28, 1702969.	14.9	60
825	High-Resolution Multi-Scale Computational Model for Non-Invasive Cervical Vagus Nerve Stimulation. Neuromodulation, 2018, 21, 261-268.	0.8	75
826	Direct electrical stimulation of human cortex evokes high gamma activity that predicts conscious somatosensory perception. Journal of Neural Engineering, 2018, 15, 026015.	3.5	14
827	Molybdenum coated SU-8 microneedle electrodes for transcutaneous electrical nerve stimulation. Biomedical Microdevices, 2018, 20, 1.	2.8	34
828	Tissueâ€electronics interfaces: from implantable devices to engineered tissues. Nature Reviews Materials, 2018, 3, .	48.7	372

#	ARTICLE	IF	CITATIONS
829	Electrical stimulation of the insular cortex as a novel target for the relief of refractory pain: An experimental approach in rodents. Behavioural Brain Research, 2018, 346, 86-95.	2.2	29
830	Electrochemical characterization of high frequency stimulation electrodes: role of electrode material and stimulation parameters on electrode polarization. Journal of Neural Engineering, 2018, 15, 036023.	3.5	10
831	An Ultralightweight and Living Legged Robot. Soft Robotics, 2018, 5, 17-23.	8.0	34
832	Conducting polymers for neuronal microelectrode array recording and stimulation. Sensors and Actuators B: Chemical, 2018, 257, 753-765.	7.8	72
833	Considerations in performing and analyzing the responses of cortico-cortical evoked potentials in stereo-EEG. Epilepsia, 2018, 59, 16-26.	5.1	47
834	A power-efficient current-mode neural/muscular stimulator design for peripheral nerve prosthesis. International Journal of Circuit Theory and Applications, 2018, 46, 692-706.	2.0	11
835	Public Regulatory Databases as a Source of Insight for Neuromodulation Devices Stimulation Parameters. Neuromodulation, 2018, 21, 117-125.	0.8	17
836	A Multi-Domain Continuum Model of Electrical Stimulation of Healthy and Degenerate Retina. , 2018, 2018, 6117-6120.		2
837	Vagus nerve stimulation to treat inflammatory bowel disease: a chronic, preclinical safety study in sheep. Bioelectronics in Medicine, 2018, 1, 235-250.	2.0	10
838	An Ultrasonically Powered and Controlled Ultra-High-Frequency Biphasic Electrical Neurostimulator. , 2018, , .		9
839	Fabrication of Iridium Oxide/Platinum Composite Film on Titanium Substrate for High-Performance Neurostimulation Electrodes. Coatings, 2018, 8, 420.	2.6	7
840	Investigation of the efficiency of the shape of chopped pulses using earthworm model. , 2018, 2018, 5483-5486.		1
841	Wearable Neuromodulators. , 2018, , .		0
842	Investigation of the Stimulation Capabilities of a High-Resolution Neurorecording Probe for the Application of Closed-Loop Deep Brain Stimulation. , 2018, 2018, 2166-2169.		0
843	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
844	Optimizing stimulus waveforms for suppressing epileptic activity reveals a counterbalancing mechanism. , 2018, 2018, 2226-2229.		2
845	Electrophysiological Activity Evoked by Direct Electrical Stimulation of the Human Brain: Interest of the P0 Component*. , 2018, 2018, 2210-2213.		8
846	Effect of Asymmetric, Charge Balanced Stimuli on Elicited Compound Neural Action Potentials. , 2018, 2018, 3370-3373.		0

#	ARTICLE	IF	CITATIONS
847	Characterization of Stimulation Artifact Behavior in Simultaneous Electrocorticography Grid Stimulation and Recording. , 2018, 2018, 4748-4751.		6
848	Spatiotemporal Analysis of Simultaneous Repetitive Electrical Stimulation with Voltage Sensitive Dye. , 2018, , .		1
849	A Measurement Setup and Automated Calculation Method to Determine the Charge Injection Capacity of Implantable Microelectrodes. Sensors, 2018, 18, 4152.	3.8	16
850	Micro-solenoid inductors with magnetic core for neural stimulation. , 2018, 2018, 2230-2233.		3
851	Motor Neuroprostheses. , 2018, 9, 127-148.		6
852	Neural Excitations by the Current Injected Through the Carbon Nanotube Surface of an Intracortical Electrode in Vivo. , 2018, , .		0
853	Experimental Study on Nerve Signals Block for Spasticity Based on Antimissile Strategy. , 2018, 2018, 2260-2263.		3
854	Improved control effect of absence seizures by autaptic connections to the subthalamic nucleus. Physical Review E, 2018, 98, .	2.1	14
855	In Situ Measurement of Stimulus Induced pH Changes Using ThinFilm Embedded IrOx pH Electrodes. , 2018, 2018, 5049-5052.		3
856	Ten Kilohertz (10 kHz) High-Frequency Spinal Cord Stimulation. , 2018, , 693-699.		0
857	Sex-Related Differences in Drug-Induced QT Prolongation and Torsades de Pointes: A New Model System with Human iPSC-CMs. Toxicological Sciences, 2019, 167, 360-374.	3.1	26
858	Electrical stimulation of the piriform cortex for the treatment of epilepsy: A review of the supporting evidence. Epilepsy and Behavior, 2018, 88, 152-161.	1.7	20
859	Ablation outcome of irreversible electroporation on potato monitored by impedance spectrum under multi-electrode system. BioMedical Engineering OnLine, 2018, 17, 126.	2.7	22
860	Safety Studies for a 44-Channel Suprachoroidal Retinal Prosthesis: A Chronic Passive Study. , 2018, 59, 1410.		29
861	Optimal waveform for entrainment of a spiking neuron with minimum stimulating charge. Physical Review E, 2018, 98, .	2.1	16
862	Assessment of the Complex Refractive Indices of Xenopus Laevis Sciatic Nerve for the Optimization of Optical (NIR) Neurostimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 2306-2314.	4.9	4
863	Subretinal prosthetic systems and epileptic seizure control systems: Chip design, integration, and animal tests. Japanese Journal of Applied Physics, 2018, 57, 1002A4.	1.5	4
864	NURIP: Neural Interface Processor for Brain-State Classification and Programmable-Waveform Neurostimulation. IEEE Journal of Solid-State Circuits, 2018, 53, 3150-3162.	5.4	59

#	ARTICLE	IF	CITATIONS
865	Model-Based Vestibular Afferent Stimulation: Evaluating Selective Electrode Locations and Stimulation Waveform Shapes. <i>Frontiers in Neuroscience</i> , 2018, 12, 588.	2.8	13
866	In Vivo Rat Spinal Cord and Striated Muscle Monitoring Using the Current Interruption Method and Bioimpedance Measurements. <i>Journal of the Electrochemical Society</i> , 2018, 165, G3099-G3103.	2.9	7
867	Temporal pattern of electrical stimulation is a new dimension of therapeutic innovation. <i>Current Opinion in Biomedical Engineering</i> , 2018, 8, 1-6.	3.4	45
868	Configuration of electrical spinal cord stimulation through real-time processing of gait kinematics. <i>Nature Protocols</i> , 2018, 13, 2031-2061.	12.0	96
869	Conductively coupled flexible silicon electronic systems for chronic neural electrophysiology. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E9542-E9549.	7.1	50
870	Platinum corrosion products from electrode contacts of human cochlear implants induce cell death in cell culture models. <i>PLoS ONE</i> , 2018, 13, e0196649.	2.5	32
871	Physics of Transcranial Direct Current Stimulation Devices and Their History. <i>Journal of ECT</i> , 2018, 34, 137-143.	0.6	40
872	An Interpretation on Type-I & Type-II Compensators for PWM Controlled SBC in VRM Applications. , 2018, , .		0
876	Examination of Needle Surface Corrosion in Electroacupuncture. <i>Acupuncture in Medicine</i> , 2018, 36, 367-376.	1.0	2
877	Graphene biointerfaces for optical stimulation of cells. <i>Science Advances</i> , 2018, 4, eaat0351.	10.3	68
878	Recent Advances in Materials, Devices, and Systems for Neural Interfaces. <i>Advanced Materials</i> , 2018, 30, e1800534.	21.0	148
879	Implantable Neural Stimulators. , 2018, , 275-287.		6
880	The development of neural stimulators: a review of preclinical safety and efficacy studies. <i>Journal of Neural Engineering</i> , 2018, 15, 041004.	3.5	48
881	A 22 V Compliant 56 μ W Twin-Track Active Charge Balancing Enabling 100% Charge Compensation Even in Monophasic and 36% Amplitude Correction in Biphasic Neural Stimulators. <i>IEEE Journal of Solid-State Circuits</i> , 2018, 53, 2298-2310.	5.4	36
882	Controlling Nerve Growth with an Electric Field Induced Indirectly in Transparent Conductive Substrate Materials. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800473.	7.6	29
883	Transcranial Direct Current Stimulation (tDCS). , 2018, , 1589-1610.		4
884	Multifunctional Neural Interfaces for Closed-Loop Control of Neural Activity. <i>Advanced Functional Materials</i> , 2018, 28, 1703523.	14.9	22
885	Electrodeposited Iridium Oxide on Carbon Fiber Ultramicroelectrodes for Neural Recording and Stimulation. <i>Journal of the Electrochemical Society</i> , 2018, 165, D375-D380.	2.9	25

#	ARTICLE	IF	CITATIONS
886	Mechanisms of electrical vasoconstriction. Journal of NeuroEngineering and Rehabilitation, 2018, 15, 43.	4.6	15
887	The Safe Delivery of Electrical Currents and Neuromodulation. , 2018, , 83-94.		5
888	Waveforms for Neural Stimulation. , 2018, , 95-102.		5
889	Fundamentals of Kilohertz Frequency Alternating Current Nerve Conduction Block of the Peripheral Nervous System. , 2018, , 111-120.		2
890	Multisite Delayed Feedback for Electrical Brain Stimulation. Frontiers in Physiology, 2018, 9, 46.	2.8	30
891	A Wearable Body Controlling Device for Application of Functional Electrical Stimulation. Sensors, 2018, 18, 1251.	3.8	11
892	Dry tDCS: Tolerability of a novel multilayer hydrogel composite non-adhesive electrode for transcranial direct current stimulation. Brain Stimulation, 2018, 11, 1044-1053.	1.6	16
893	An Energy-Efficient Wirelessly Powered Millimeter-Scale Neurostimulator Implant Based on Systematic Codesign of an Inductive Loop Antenna and a Custom Rectifier. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1131-1143.	4.0	38
894	Approaches to closed-loop deep brain stimulation for movement disorders. Neurosurgical Focus, 2018, 45, E2.	2.3	42
895	Design of a Compact Wireless Multi-Channel High Area-Efficient Stimulator with Arbitrary Channel Configuration. Micromachines, 2018, 9, 6.	2.9	6
896	Low Frequency Microstimulation Is Locally Excitatory in Patients With Epilepsy. Frontiers in Neural Circuits, 2018, 12, 22.	2.8	4
897	Evolving Applications, Technological Challenges and Future Opportunities in Neuromodulation: Proceedings of the Fifth Annual Deep Brain Stimulation Think Tank. Frontiers in Neuroscience, 2017, 11, 734.	2.8	65
898	A Miniaturized, Programmable Deep-Brain Stimulator for Group-Housing and Water Maze Use. Frontiers in Neuroscience, 2018, 12, 231.	2.8	23
899	Modeling the Improved Visual Acuity Using Photodiode Based Retinal Implants Featuring Fractal Electrodes. Frontiers in Neuroscience, 2018, 12, 277.	2.8	12
900	Novel Nano-Materials and Nano-Fabrication Techniques for Flexible Electronic Systems. Micromachines, 2018, 9, 263.	2.9	38
901	Electrical stimulation of cells through photovoltaic microcell arrays. Nano Energy, 2018, 51, 571-578.	16.0	13
902	Non-rectangular waveforms are more charge-efficient than rectangular one in eliciting network-mediated responses of ON type retinal ganglion cells. Journal of Neural Engineering, 2018, 15, 055004.	3.5	20
903	Feasibility of Nitrogen Doped Ultrananocrystalline Diamond Microelectrodes for Electrophysiological Recording From Neural Tissue. Frontiers in Bioengineering and Biotechnology, 2018, 6, 85.	4.1	8

#	ARTICLE	IF	CITATIONS
904	Optogenetic stimulation: Understanding memory and treating deficits. <i>Hippocampus</i> , 2018, 28, 457-470.	1.9	22
905	InÂvivo imaging of neuronal calcium during electrode implantation: Spatial and temporal mapping of damage and recovery. <i>Biomaterials</i> , 2018, 174, 79-94.	11.4	76
906	Current Overshoots and Undershoots in Electrical Stimulation: A Circuit-level Perspective of the Origin and Solutions. , 2018, , .		1
907	Differential electrical responses in retinal ganglion cell subtypes: effects of synaptic blockade and stimulating electrode location. <i>Journal of Neural Engineering</i> , 2018, 15, 046020.	3.5	23
908	PEDOT: PSS coating on gold microelectrodes with excellent stability and high charge injection capacity for chronic neural interfaces. <i>Sensors and Actuators B: Chemical</i> , 2018, 275, 382-393.	7.8	81
909	High-Q Implantable Resonator for Wireless Power Delivery. , 2018, , .		1
910	A Compact Operational Amplifier with Load-Insensitive Stability Compensation for High-Precision Transducer Interface. <i>Sensors</i> , 2018, 18, 393.	3.8	3
911	Current Controlled CMOS Stimulator with Programmable Pulse Pattern for a Retina Implant. , 2018, , .		1
912	An Active Charge Balancing Method Based on Chopped Anodic Phase. , 2018, , .		3
913	Ultralow Impedance Graphene Microelectrodes with High Optical Transparency for Simultaneous Deep Twoâ€Photon Imaging in Transgenic Mice. <i>Advanced Functional Materials</i> , 2018, 28, 1800002.	14.9	76
914	High-density peripheral nerve cuffs restore natural sensation to individuals with lower-limb amputations. <i>Journal of Neural Engineering</i> , 2018, 15, 056002.	3.5	86
915	Low-Impedance, High Surface Area Pt-Ir Electrodeposited on Cochlear Implant Electrodes. <i>Journal of the Electrochemical Society</i> , 2018, 165, G3015-G3017.	2.9	23
916	Sub-threshold depolarizing pre-pulses can enhance the efficiency of biphasic stimuli in transcutaneous neuromuscular electrical stimulation. <i>Medical and Biological Engineering and Computing</i> , 2018, 56, 2213-2219.	2.8	4
917	Optimizing stimulus waveforms for electroceuticals. <i>Biological Cybernetics</i> , 2019, 113, 191-199.	1.3	9
918	Bioreactors for Cardiac Tissue Engineering. <i>Advanced Healthcare Materials</i> , 2019, 8, e1701504.	7.6	51
919	Safety Aspects, Tolerability and Modeling of Retinofugal Alternating Current Stimulation. <i>Frontiers in Neuroscience</i> , 2019, 13, 783.	2.8	15
920	Biocompatible Quantum Funnel for Neural Photostimulation. <i>Nano Letters</i> , 2019, 19, 5975-5981.	9.1	22
921	Reliability of parylene-based multi-electrode arrays chronically implanted in adult rat brains, and evidence of electrical stimulation on contact impedance. <i>Journal of Neural Engineering</i> , 2019, 16, 066047.	3.5	9

#	ARTICLE	IF	CITATIONS
922	Biomimetic sensory feedback through peripheral nerve stimulation improves dexterous use of a bionic hand. <i>Science Robotics</i> , 2019, 4, .	17.6	244
923	Direct electrical stimulation enhances osteogenesis by inducing Bmp2 and Spp1 expressions from macrophages and preosteoblasts. <i>Biotechnology and Bioengineering</i> , 2019, 116, 3421-3432.	3.3	59
924	Neural responses to electrical stimulation in 2D and 3D in vitro environments. <i>Brain Research Bulletin</i> , 2019, 152, 265-284.	3.0	43
925	Transcranial electrical stimulation nomenclature. <i>Brain Stimulation</i> , 2019, 12, 1349-1366.	1.6	84
926	A 0.034% Charge-Imbalanced Neural Stimulation Front-End (SFE) IC With on-Chip Voltage Compliance Monitoring Circuit and Analysis on Resting Potential by Utilizing the SFE IC. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2019, 66, 3797-3810.	5.4	7
927	Well Controlled 3D Iridium Oxide/Platinum Nanocomposites with Greatly Enhanced Electrochemical Performances. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900356.	3.7	13
928	Evaluation of acute anodal direct current stimulation-induced effects on somatosensory-evoked responses in the rat. <i>Brain Research</i> , 2019, 1720, 146318.	2.2	13
929	Adaptive delivery of continuous and delayed feedback deep brain stimulation - a computational study. <i>Scientific Reports</i> , 2019, 9, 10585.	3.3	34
930	Oxygen consumption in human, tissue-engineered myobundles during basal and electrical stimulation conditions. <i>APL Bioengineering</i> , 2019, 3, 026103.	6.2	12
931	Insights into the Electron Transfer Kinetics, Capacitance and Resistance Effects of Implantable Electrodes Using Fourier Transform AC Voltammetry on Platinum. <i>Journal of the Electrochemical Society</i> , 2019, 166, G131-G140.	2.9	8
932	Analytical Solution for Electrical Problem Forced by a Finite-Length Needle Electrode: Implications in Electrostimulation. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-10.	1.1	0
933	Flexible, multichannel cuff electrode for selective electrical stimulation of the mouse trigeminal nerve. <i>Biosensors and Bioelectronics</i> , 2019, 142, 111493.	10.1	7
934	Origami NdFeB Flexible Magnetic Membranes with Enhanced Magnetism and Programmable Sequences of Polarities. <i>Advanced Functional Materials</i> , 2019, 29, 1904977.	14.9	55
935	Somatosensory Cortex Microstimulation: Behavioral Effects of Phase Duration and Asymmetric Waveforms. , 2019, 2019, 1809-1812.		5
936	Instrumented Microphysiological Systems for Real-Time Measurement and Manipulation of Cellular Electrochemical Processes. <i>IScience</i> , 2019, 21, 521-548.	4.1	43
937	An Injectable Neural Stimulation Electrode Made from an In-Body Curing Polymer/Metal Composite. <i>Advanced Healthcare Materials</i> , 2019, 8, e1900892.	7.6	32
938	Corrosion Study of Implanted Tin Electrodes Using Excessive Electrical Stimulation in Minipigs. <i>Metals</i> , 2019, 9, 389.	2.3	1
939	A Multi-Channel Asynchronous Neurostimulator With Artifact Suppression for Neural Code-Based Stimulations. <i>Frontiers in Neuroscience</i> , 2019, 13, 1011.	2.8	8

#	ARTICLE	IF	CITATIONS
940	Microbiome-Gut-Brain Axis as a Biomolecular Communication Network for the Internet of Bio-NanoThings. IEEE Access, 2019, 7, 136161-136175.	4.2	15
941	Preferential activation of small cutaneous fibers through small pin electrode also depends on the shape of a long duration electrical current. BMC Neuroscience, 2019, 20, 48.	1.9	11
942	Selective recruitment of cortical neurons by electrical stimulation. PLoS Computational Biology, 2019, 15, e1007277.	3.2	20
943	A Robust Encoding Scheme for Delivering Artificial Sensory Information via Direct Brain Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1994-2004.	4.9	13
944	Direct Electrical Stimulation in Electrographic Brain-Computer Interfaces: Enabling Technologies for Input to Cortex. Frontiers in Neuroscience, 2019, 13, 804.	2.8	46
945	A Platform to Study the Effects of Electrical Stimulation on Immune Cell Activation During Wound Healing. Advanced Biology, 2019, 3, e1900106.	3.0	16
946	Insulation of Carbon Nanotube Yarn Electrodes for Intrafascicular Neural Stimulation and Recording. , 2019, , .		4
947	A Rechargeable Battery-Driven, More than 4 Weeks Runtime, Biphasic Bilateral DBS Unit for Rodents. , 2019, , .		2
948	Accelerated Recovery of DC Blocking Using Repolarization. , 2019, , .		1
949	Vagus Nerve Stimulation in Rodent Models: An Overview of Technical Considerations. Frontiers in Neuroscience, 2019, 13, 911.	2.8	36
950	Investigating stimulation parameters for preferential small-fiber activation using exponentially rising electrical currents. Journal of Neurophysiology, 2019, 122, 1745-1752.	1.8	9
951	Electrical stimulation-induced SSSEP as an objective index for the evaluation of sensory ability. , 2019, , .		0
952	Platinum/Graphene Oxide Coated Microfabricated Arrays for Multinucleus Neural Activities Detection in the Rat Models of Parkinson's Disease Treated by Apomorphine. ACS Applied Bio Materials, 2019, 2, 4010-4019.	4.6	7
953	Numerical Simulation of Electroactive Hydrogels for Cartilage Tissue Engineering. Materials, 2019, 12, 2913.	2.9	10
954	The use of a double-layer platinum black-conducting polymer coating for improvement of neural recording and mitigation of photoelectric artifact. Biosensors and Bioelectronics, 2019, 145, 111661.	10.1	27
955	Transcranial Direct Current Stimulation Among Technologies for Low-Intensity Transcranial Electrical Stimulation: Classification, History, and Terminology. , 2019, , 3-43.		12
956	Safety of long-term electrical peripheral nerve stimulation: review of the state of the art. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 13.	4.6	127
957	Transcranial Direct Current Stimulation Electrodes. , 2019, , 263-291.		7

#	ARTICLE	IF	CITATIONS
958	Mechanisms of Acute and After Effects of Transcranial Direct Current Stimulation. , 2019, , 81-113.		18
959	High Charge Storage Capacity Micro Electrode Array on a Wire for Implantable Neuromuscular Applications. Springer Proceedings in Physics, 2019, , 863-869.	0.2	0
960	Acute Seizure Control Efficacy of Multi-Site Closed-Loop Stimulation in a Temporal Lobe Seizure Model. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 419-428.	4.9	18
961	Connectivity of the human insula: A cortico-cortical evoked potential (CCEP) study. Cortex, 2019, 120, 419-442.	2.4	49
962	Application of a Novel Measurement Setup for Characterization of Graphene Microelectrodes and a Comparative Study of Variables Influencing Charge Injection Limits of Implantable Microelectrodes. Sensors, 2019, 19, 2725.	3.8	11
963	A multiple modulation synthesis method with high spatial resolution for noninvasive neurostimulation. PLoS ONE, 2019, 14, e0218293.	2.5	12
965	Photochemistry of Organic Retinal Prostheses. Annual Review of Physical Chemistry, 2019, 70, 99-121.	10.8	16
966	Electric field gradients and bipolar electrochemistry effects on neural growth: A finite element study on immersed electroactive conducting electrode materials. Electrochimica Acta, 2019, 317, 102-111.	5.2	13
967	A high-performance 4 nV (~ 1) analog front-end architecture for artefact suppression in local field potential recordings during deep brain stimulation. Journal of Neural Engineering, 2019, 16, 066003.	3.5	8
968	Human Neural Tissues from Neural Stem Cells Using Conductive Biogel and Printed Polymer Microelectrode Arrays for 3D Electrical Stimulation. Advanced Healthcare Materials, 2019, 8, e1900425.	7.6	62
969	Advances in Conducting, Biodegradable and Biocompatible Copolymers for Biomedical Applications. Frontiers in Materials, 2019, 6, .	2.4	42
970	Polyaniline Functionalized Graphene Nanoelectrodes for the Regeneration of PC12 Cells via Electrical Stimulation. International Journal of Molecular Sciences, 2019, 20, 1013.	4.1	16
972	Implantable Direct Current Neural Modulation: Theory, Feasibility, and Efficacy. Frontiers in Neuroscience, 2019, 13, 379.	2.8	36
973	Using Chronopotentiometry to Better Characterize the Charge Injection Mechanisms of Platinum Electrodes Used in Bionic Devices. Frontiers in Neuroscience, 2019, 13, 380.	2.8	17
974	Evaluation of chronically implanted subdural boron doped diamond/CNT recording electrodes in miniature swine brain. Bioelectrochemistry, 2019, 129, 79-89.	4.6	9
975	Design and Development of an Optimized Output Stage for Electrical Stimulation. , 2019, , .		0
976	Analysis of a poly(μ -decalactone)/silver nanowire composite as an electrically conducting neural interface biomaterial. BMC Biomedical Engineering, 2019, 1, 9.	2.6	7
977	Durable soft neural micro-electrode coating by an electrochemical synthesis of PEDOT:PSS / graphene oxide composites. Electrochimica Acta, 2019, 313, 79-90.	5.2	43

#	ARTICLE	IF	CITATIONS
978	Miniature electroparticle-cuff for wireless peripheral neuromodulation. Journal of Neural Engineering, 2019, 16, 046002.	3.5	15
979	A Carbon Slurry Separated Interface Nerve Electrode for Electrical Block of Nerve Conduction. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 836-845.	4.9	12
980	The role of pH fronts, chlorination and physicochemical reactions in tumor necrosis in the electrochemical treatment of tumors: A numerical study. Electrochimica Acta, 2019, 307, 129-147.	5.2	5
981	Combined ionic direct current and pulse frequency modulation improves the dynamic range of vestibular canal stimulation. Journal of Vestibular Research: Equilibrium and Orientation, 2019, 29, 89-96.	2.0	7
982	Fully Integrated Light-Sensing Stimulator Design for Subretinal Implants. Sensors, 2019, 19, 536.	3.8	15
983	Comparison of the efficiency of chopped and non-rectangular electrical stimulus waveforms in activating small vagus nerve fibers. Journal of Neuroscience Methods, 2019, 320, 1-8.	2.5	9
984	Influence of In Vitro Electrical Stimulation on Survival of Spiral Ganglion Neurons. Neurotoxicity Research, 2019, 36, 204-216.	2.7	9
985	ReStore: A wireless peripheral nerve stimulation system. Journal of Neuroscience Methods, 2019, 320, 26-36.	2.5	30
986	Focal activation of neuronal circuits induced by microstimulation in the visual cortex. Journal of Neural Engineering, 2019, 16, 036007.	3.5	16
987	Carbon multi-electrode arrays as peripheral nerve interface for neural recording and nerve stimulation. Medical Devices & Sensors, 2019, 2, e10026.	2.7	3
988	Electrodeposited platinum-iridium coating improves in vivo recording performance of chronically implanted microelectrode arrays. Biomaterials, 2019, 205, 120-132.	11.4	47
989	Optimizing neuromuscular electrical stimulation for hand opening. Somatosensory & Motor Research, 2019, 36, 63-68.	0.9	1
990	Electron transfer processes occurring on platinum neural stimulating electrodes: pulsing experiments for cathodic-first, charge-imbalanced, biphasic pulses for 0.566â€‰sâ€‰ ⁻¹ â€‰toâ€‰1.2â€‰sâ€‰ ⁻¹ â€‰in subcutaneous tissues. Journal of Neural Engineering, 2019, 16, 026018.	3.5	12
991	Electrophysiology equipment for reliable study of kHz electrical stimulation. Journal of Physiology, 2019, 597, 2131-2137.	2.9	13
992	NanoNeuroRFID: A Wireless Implantable Device Based on Magnetoelectric Antennas. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2019, 3, 206-215.	3.4	66
993	Cathodic-leading pulses are more effective than anodic-leading pulses in intracortical microstimulation of the auditory cortex. Journal of Neural Engineering, 2019, 16, 036002.	3.5	11
994	Band Alignment Engineers Faradaic and Capacitive Photostimulation of Neurons Without Surface Modification. Physical Review Applied, 2019, 11, .	3.8	23
995	Direct Neural Interface. , 2019, , 139-174.		0

#	ARTICLE	IF	CITATIONS
996	Nongenetic optical neuromodulation with silicon-based materials. Nature Protocols, 2019, 14, 1339-1376.	12.0	62
997	Electrotaxis of Glioblastoma and Medulloblastoma Spheroidal Aggregates. Scientific Reports, 2019, 9, 5309.	3.3	22
998	Enhanced spinal cord microstimulation using conducting polymer-coated carbon microfibers. Acta Biomaterialia, 2019, 90, 71-86.	8.3	22
999	Optoelectronic control of single cells using organic photocapacitors. Science Advances, 2019, 5, eaav5265.	10.3	82
1000	The Bionode. Transactions on Embedded Computing Systems, 2019, 18, 1-20.	2.9	18
1001	Electrodeposited poly(3,4-ethylenedioxythiophene) films as neural interfaces: Cytocompatibility and electrochemical studies. Electrochimica Acta, 2019, 302, 21-30.	5.2	15
1002	CMOS stimulating chips capable of wirelessly driving 473 electrodes for a cortical vision prosthesis. Journal of Neural Engineering, 2019, 16, 026025.	3.5	18
1003	The effect of medial pulvinar stimulation on temporal lobe seizures. Epilepsia, 2019, 60, e25-e30.	5.1	56
1004	Modeling Trans-Spinal Direct Current Stimulation in the Presence of Spinal Implants. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 790-797.	4.9	6
1005	Development of a Closed-Loop Stimulator for Laryngeal Reanimation: Part 2. Device Testing in the Canine Model of Laryngeal Paralysis. Annals of Otology, Rhinology and Laryngology, 2019, 128, 53S-70S.	1.1	8
1006	Development of a Closed-Loop Stimulator for Laryngeal Reanimation, Part 1: Devices. Annals of Otology, Rhinology and Laryngology, 2019, 128, 33S-52S.	1.1	3
1007	Photoactive Organic Substrates for Cell Stimulation: Progress and Perspectives. Advanced Materials Technologies, 2019, 4, 1800744.	5.8	42
1008	A Fully Automatic Mid-Diastole Frame Detection in 2D Echocardiography Sequences. , 2019, , .		0
1009	Relaxed Wyner's Common Information. , 2019, , .		4
1010	Synchronization of pulse-width modulation of the active rectifiers connected in parallel. , 2019, , .		0
1011	A Review of Machine Learning Techniques for Breast Cancer Diagnosis in Medical Applications. , 2019, , .		19
1012	Lightweight Searchable Encryption Scheme Based on Certificateless Cryptosystem. , 2019, , .		5
1013	Detection in a Non-invasive Way of Glucose in Cells Cultivation. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
1014	Reinforce Memory Error Protection by Breaking DRAM Disturbance Correlation Within ECC Words. , 2019, , .		2
1015	Lost in Disclosure: On the Inference of Password Composition Policies. , 2019, , .		1
1016	Administrative Committee. IEEE Transactions on Power Electronics, 2019, 34, C4-C4.	7.9	0
1017	IoT based model of healthcare for physiotherapy. , 2019, , .		3
1018	A Power-Efficient and Safe Neural Stimulator Using Ultra-High Frequency Current Pulses for Nerve Conduction Block. , 2019, , .		1
1019	Chopped-Anodic-Phase Charge Balancing Method for Electrical Stimulation. , 2019, , .		2
1020	Fabrication of a Self-Curling Cuff with a Soft, Ionically Conducting Neural Interface. , 2019, 2019, 3750-3753.		4
1021	A Low-cost Electrical System with High Compliance of Supply Voltage for Deep Brain Stimulation on Rats. , 2019, , .		2
1022	Diffraction by a Truncated Slab Lying on a PEC Plate. , 2019, , .		0
1023	Visualization Analysis of Multidimensional Data for Online Transaction Log. , 2019, , .		1
1024	Non-parallel Many-to-many Singing Voice Conversion by Adversarial Learning. , 2019, , .		2
1025	A Modified Wave Variable Method in Bilateral Teleoperation System with Time Delay. , 2019, , .		0
1026	Modularized Textual Grounding for Counterfactual Resilience. , 2019, , .		11
1027	Double-Channel High-Electron-Mobility Transistor for Linearity Enhancement in RF/Microwave Applications. , 2019, , .		0
1028	SHO designed fuzzy logic based controller for AGC study with capacitor energy storage. , 2019, , .		2
1029	Gamifying the Code Genie Programming Tool. , 2019, , .		1
1030	Advanced Fruit Fly Optimization Algorithm and Its Application to Irregular Subarray Phased Array Antenna Synthesis. IEEE Access, 2019, 7, 165583-165596.	4.2	24
1031	Efficient Codebook and Factorization for Second Order Representation Learning. , 2019, , .		3

#	ARTICLE	IF	CITATIONS
1032	Experimental Validation of a Compensation Method for Ultra-High-Speed Absolute Rotary Encoders. , 2019, , .		1
1033	Monocular 3D Object Detection Leveraging Accurate Proposals and Shape Reconstruction. , 2019, , .		160
1034	Vibration-Based Monitoring of Electrotechnical Systems of an Iron-and-Steel Enterprise. , 2019, , .		1
1035	Autonomous CMOS Power Management Integrated Circuit for Electrostatic Kinetic Energy Harvesters e-KEH. , 2019, , .		1
1036	Towards a low-cost gas stove control for domestic cooking.. , 2019, , .		1
1037	An Efficient and Smart Control of Solar Panel Orientation using Machine Learning. , 2019, , .		0
1038	Distributed Feedback-Aided Subspace Concurrent Opportunistic Communications. , 2019, , .		3
1039	The $\frac{1}{4}$ DBS: Multiresolution, Directional Deep Brain Stimulation for Improved Targeting of Small Diameter Fibers. Frontiers in Neuroscience, 2019, 13, 1152.	2.8	17
1040	Implantable Neural Interfaces and Wearable Tactile Systems for Bidirectional Neuroprosthetics Systems. Advanced Healthcare Materials, 2019, 8, e1801345.	7.6	32
1041	A high-performance 8â€‰mV/â€‰Hz 8-channel wearable and wireless system for real-time monitoring of bioelectrical signals. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 156.	4.6	11
1042	Electrochemical Stability of Thin-Film Platinum as Suitable Material for Neural Stimulation Electrodes. , 2019, 2019, 3762-3765.		2
1043	Introduction to ECoG interfaces. , 2019, , 1-30.		0
1044	Brain Machine Interfaces for Vision Restoration: The Current State of Cortical Visual Prosthetics. Neurotherapeutics, 2019, 16, 134-143.	4.4	80
1045	Phase reduction and phase-based optimal control for biological systems: a tutorial. Biological Cybernetics, 2019, 113, 11-46.	1.3	67
1046	Effects of low-intensity electrical stimulation and adipose derived stem cells transplantation on the time-domain analysis-based electromyographic signals in dogs with SCI. Neuroscience Letters, 2019, 696, 38-45.	2.1	15
1047	Closed-Loop Neuromodulation in Physiological and Translational Research. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a034314.	6.2	34
1048	Stimulation and Artifact-Suppression Techniques for <i>In Vitro</i> High-Density Microelectrode Array Systems. IEEE Transactions on Biomedical Engineering, 2019, 66, 2481-2490.	4.2	13
1049	3D Nanostructured Multielectrode Arrays: Fabrication, Electrochemical Characterization, and Evaluation of Cellâ€™Electrode Adhesion. Advanced Materials Technologies, 2019, 4, 1800436.	5.8	20

#	ARTICLE	IF	CITATIONS
1050	Neurophysiological effects of continuous cortical stimulation in epilepsy – Spike and spontaneous ECoG activity. <i>Clinical Neurophysiology</i> , 2019, 130, 38-45.	1.5	5
1051	Properties and behavior of carbon nanomaterials when interfacing neuronal cells: How far have we come?. <i>Carbon</i> , 2019, 143, 430-446.	10.3	135
1052	Calcium activation of cortical neurons by continuous electrical stimulation: Frequency dependence, temporal fidelity, and activation density. <i>Journal of Neuroscience Research</i> , 2019, 97, 620-638.	2.9	67
1053	Ion Electron–Coupled Functionality in Materials and Devices Based on Conjugated Polymers. <i>Advanced Materials</i> , 2019, 31, e1805813.	21.0	118
1054	Temperature increases by kilohertz frequency spinal cord stimulation. <i>Brain Stimulation</i> , 2019, 12, 62-72.	1.6	45
1055	Micro-Coil Design Influences the Spatial Extent of Responses to Intracortical Magnetic Stimulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1680-1694.	4.2	27
1056	Electric compound action potentials (ECAPs) and impedances in an open and closed operative site during cochlear implantation. <i>Cochlear Implants International</i> , 2019, 20, 23-30.	1.2	2
1057	Biophysical Modeling for Brain Tissue Conductivity Estimation Using SEEG Electrodes. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1695-1704.	4.2	18
1058	Self-supporting carbon nanotube films as flexible neural interfaces. <i>Electrochimica Acta</i> , 2019, 295, 253-261.	5.2	20
1059	Rhythmic modulation of thalamic oscillations depends on intrinsic cellular dynamics. <i>Journal of Neural Engineering</i> , 2019, 16, 016013.	3.5	7
1060	The influence of macropores on PEDOT/PSS microelectrode coatings for neuronal recording and stimulation. <i>Sensors and Actuators B: Chemical</i> , 2019, 281, 549-560.	7.8	34
1061	Current Advances in the Design of Retinal and Cortical Visual Prostheses. , 2019, , 355-403.		0
1062	Chronic intracochlear electrical stimulation at high charge densities results in platinum dissolution but not neural loss or functional changes <i>in vivo</i> . <i>Journal of Neural Engineering</i> , 2019, 16, 026009.	3.5	28
1063	Anodic stimulation misunderstood: preferential activation of fiber orientations with anodic waveforms in deep brain stimulation. <i>Journal of Neural Engineering</i> , 2019, 16, 016026.	3.5	81
1064	Use of Bioelectronics in the Gastrointestinal Tract. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2019, 9, a034165.	6.2	7
1065	Electrical Impedance to Assess Facial Nerve Proximity During Robotic Cochlear Implantation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 237-245.	4.2	17
1066	Characterizing the Motor Points of Forearm Muscles for Dexterous Neuroprostheses. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 50-59.	4.2	6
1067	Electrical stimulation-induced osteogenesis of human adipose derived stem cells using a conductive graphene-cellulose scaffold. <i>Materials Science and Engineering C</i> , 2020, 107, 110312.	7.3	47

#	ARTICLE	IF	CITATIONS
1068	Methodology for quantifying excitability of identified projection neurons in the dorsal horn of the spinal cord, specifically to study spinal cord stimulation paradigms. Journal of Neuroscience Methods, 2020, 330, 108479.	2.5	8
1069	Organic Haptics: Intersection of Materials Chemistry and Tactile Perception. Advanced Functional Materials, 2020, 30, 1906850.	14.9	25
1070	Electrospun hyaluronic acid-carbon nanotube nanofibers for neural engineering. Materialia, 2020, 9, 100581.	2.7	35
1071	Muscle activation pattern elicited through transcutaneous stimulation near the cervical spinal cord. Journal of Neural Engineering, 2020, 17, 016064.	3.5	4
1072	Evaluation of a conducting elastomeric composite material for intramuscular electrode application. Acta Biomaterialia, 2020, 103, 81-91.	8.3	13
1073	A novel approach for removing micro-stimulation artifacts and reconstruction of broad-band neuronal signals. Journal of Neuroscience Methods, 2020, 332, 108549.	2.5	11
1074	Electrical stimulation-induced SSSEP as an objective index to evaluate the difference of tactile acuity between the left and right hand. Journal of Neural Engineering, 2020, 17, 016053.	3.5	11
1075	Measuring the electrophysiological effects of direct electrical stimulation after awake brain surgery. Journal of Neural Engineering, 2020, 17, 016047.	3.5	12
1076	An Investigation of Neural Stimulation Efficiency With Gaussian Waveforms. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 104-112.	4.9	8
1077	Design Trade-Offs for Neural Stimulators Optimization. , 2020, , .		2
1078	System Design and Experimental Research of Neural Signal Blocking based on Spike Trapping Principle. , 2020, 2020, 3819-3822.		1
1079	Tutorial: guidelines for standardized performance tests for electrodes intended for neural interfaces and bioelectronics. Nature Protocols, 2020, 15, 3557-3578.	12.0	142
1080	Organic Bioelectronics: Using Highly Conjugated Polymers to Interface with Biomolecules, Cells, and Tissues in the Human Body. Advanced Materials Technologies, 2020, 5, 2000384.	5.8	38
1081	Constant-potential environment for activating and synchronizing cardiomyocyte colonies with on-chip ion-depleting perm-selective membranes. Lab on A Chip, 2020, 20, 4273-4284.	6.0	5
1082	Computational study on electromechanics of electroactive hydrogels for cartilage-tissue repair. Computer Methods and Programs in Biomedicine, 2020, 197, 105739.	4.7	6
1083	Chronic nerve health following implantation of femoral nerve cuff electrodes. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 95.	4.6	10
1084	Stabilization of Weakly Unstable Fixed Points as a Common Dynamical Mechanism of High-Frequency Electrical Stimulation. Scientific Reports, 2020, 10, 5922.	3.3	4
1085	Protect, Repair, and Regenerate: Towards Restoring Vision in Glaucoma. Current Ophthalmology Reports, 2020, 8, 301-310.	1.2	19

#	ARTICLE	IF	CITATIONS
1086	Continuous Electrical Stimulation Affects Initial Growth and Proliferation of Adipose-Derived Stem Cells. <i>Biomedicines</i> , 2020, 8, 482.	3.2	10
1087	Bio-Interface behaviour of graphene and semiconducting SWCNT:C ₆₀ blend based nano photodiode for subretinal implant. <i>Biosurface and Biotribology</i> , 2020, 6, 53-58.	1.5	4
1088	Recent advances in neural interfaces—Materials chemistry to clinical translation. <i>MRS Bulletin</i> , 2020, 45, 655-668.	3.5	29
1089	Distinct perceptive pathways selected with tonic and bursting patterns of thalamic stimulation. <i>Brain Stimulation</i> , 2020, 13, 1436-1445.	1.6	3
1090	An Implantable Neural Stimulator IC With Anodic Current Pulse Modulation Based Active Charge Balancing. <i>IEEE Access</i> , 2020, 8, 136449-136458.	4.2	17
1091	Neuroprosthesis for individuals with spinal cord injury. <i>Neurological Research</i> , 2023, 45, 893-905.	1.3	10
1092	Current perspectives on the safe electrical stimulation of peripheral nerves with platinum electrodes. <i>Bioelectronics in Medicine</i> , 2020, 3, 37-49.	2.0	7
1093	Integrated Programmable Current Source for Implantable Medical Devices. , 2020, , .		1
1094	Values encoded in orbitofrontal cortex are causally related to economic choices. <i>Nature</i> , 2020, 588, 450-453.	27.8	85
1095	Guidelines to Study and Develop Soft Electrode Systems for Neural Stimulation. <i>Neuron</i> , 2020, 108, 238-258.	8.1	49
1096	A microfluidic system integrated with shape memory alloy valves for a safe direct current delivery system. , 2020, 2020, 3544-3548.		3
1097	Laser Driven Miniature Diamond Implant for Wireless Retinal Prostheses. <i>Advanced Biology</i> , 2020, 4, e2000055.	3.0	12
1098	Bioelectronics-on-a-chip for cardio myoblast proliferation enhancement using electric field stimulation. <i>Biomaterials Research</i> , 2020, 24, 15.	6.9	5
1099	Soft peripheral nerve interface made from carbon nanotubes embedded in silicone. <i>APL Materials</i> , 2020, 8, .	5.1	17
1100	Stretchable bioelectronics: Mitigating the challenges of the percolation threshold in conductive elastomers. <i>APL Materials</i> , 2020, 8, .	5.1	9
1101	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. <i>Science Advances</i> , 2020, 6, eabb1093.	10.3	87
1102	Organic Photovoltaic Pseudocapacitors for Neurostimulation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42997-43008.	8.0	34
1103	A Prototype of a Fully-Implantable Charge-Balanced Artificial Sensory Stimulator for Bi-directional Brain-Computer-Interface (BD-BCI). , 2020, 2020, 3083-3085.		4

#	ARTICLE	IF	CITATIONS
1104	Quantitative estimation of nerve fiber engagement by vagus nerve stimulation using physiological markers. <i>Brain Stimulation</i> , 2020, 13, 1617-1630.	1.6	52
1105	Short-wave Infrared Neural Stimulation Drives Graded Sciatic Nerve Activation Across A Continuum of Wavelengths. , 2020, 2020, 3581-3585.		4
1106	On the DC Offset Current Generated during Biphasic Stimulation: Experimental Study. <i>Electronics (Switzerland)</i> , 2020, 9, 1198.	3.1	5
1107	Effect of the Relative Timing between Same-Polarity Pulses on Thresholds and Loudness in Cochlear Implant Users. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2020, 21, 497-510.	1.8	4
1108	Wearable EMG Bridge—A Multiple-Gesture Reconstruction System Using Electrical Stimulation Controlled by the Volitional Surface Electromyogram of a Healthy Forearm. <i>IEEE Access</i> , 2020, 8, 137330-137341.	4.2	11
1109	Loudness Perception and Dynamic Range Depending on Interphase Gaps of Biphasic Pulses in Cochlear Implants. <i>Ear and Hearing</i> , 2020, 41, 1251-1257.	2.1	4
1110	A Computational Study of Graphene as a Prospective Material for Microelectrodes in Retinal Prosthesis and Electric Crosstalk Analysis. , 2020, 2020, 2291-2294.		1
1111	Colour-sensitive conjugated polymer inkjet-printed pixelated artificial retina model studied via a bio-hybrid photovoltaic device. <i>Scientific Reports</i> , 2020, 10, 21457.	3.3	13
1112	The intraneural electrical stimulation of human median nerve: a simulation study. , 2020, , .		3
1113	Towards the clinical translation of optogenetic skeletal muscle stimulation. <i>Pflugers Archiv European Journal of Physiology</i> , 2020, 472, 527-545.	2.8	12
1114	Modular Current Stimulation System for Pre-clinical Studies. <i>Frontiers in Neuroscience</i> , 2020, 14, 408.	2.8	1
1115	Electropneumotactile Stimulation: Multimodal Haptic Actuators Enabled by a Stretchable Conductive Polymer on Inflatable Pockets. <i>Advanced Materials Technologies</i> , 2020, 5, 1901119.	5.8	13
1116	Combined and Isolated Effects of Acute Exercise and Brain Stimulation on Executive Function in Healthy Young Adults. <i>Journal of Clinical Medicine</i> , 2020, 9, 1410.	2.4	8
1117	Hierarchically structured polydimethylsiloxane films for ultra-soft neural interfaces. <i>Micro and Nano Engineering</i> , 2020, 7, 100051.	2.9	6
1118	Design of Dual-Mode Stimulus Chip With Built-In High Voltage Generator for Biomedical Applications. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2020, 14, 961-970.	4.0	12
1119	Subthreshold Electrical Stimulation for Controlling Protein-Mediated Impedance Increases in Platinum Cochlear Electrode. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 3510-3520.	4.2	8
1120	Influence of PEDOT:PSS Coating Thickness on the Performance of Stimulation Electrodes. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000675.	3.7	34
1121	Frequency distribution in intraoperative stimulation-evoked EMG responses during selective dorsal rhizotomy in children with cerebral palsy—part 1: clinical setting and neurophysiological procedure. <i>Child's Nervous System</i> , 2020, 36, 1945-1954.	1.1	4

#	ARTICLE	IF	CITATIONS
1122	Effects of basal forebrain stimulation on the vibrotactile responses of neurons from the hindpaw representation in the rat SI cortex. Brain Structure and Function, 2020, 225, 1761-1776.	2.3	5
1123	A Highly Compliant Current Driver for Electrical Stimulator with Compliance Monitor and Digital Controlled Offset Regulation Charge Balancing. , 2020, , .		3
1124	A RISC-V Based Medical Implantable SoC for High Voltage and Current Tissue Stimulus. , 2020, , .		6
1125	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
1126	MEDUSA: A Low-Cost, 16-Channel Neuromodulation Platform with Arbitrary Waveform Generation. Electronics (Switzerland), 2020, 9, 812.	3.1	3
1127	Magnetoelectric Materials for Miniature, Wireless Neural Stimulation at Therapeutic Frequencies. Neuron, 2020, 107, 631-643.e5.	8.1	110
1128	Ultrasound-driven piezoelectric current activates spinal cord neurocircuits and restores locomotion in rats with spinal cord injury. Bioelectronic Medicine, 2020, 6, 13.	2.3	12
1129	A Data-Driven Volitional EMG Extraction Algorithm During Functional Electrical Stimulation With Time Variant Parameters. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 1069-1080.	4.9	13
1130	Privacy-Preserved Data Sharing Towards Multiple Parties in Industrial IoTs. IEEE Journal on Selected Areas in Communications, 2020, 38, 968-979.	14.0	338
1131	Interfaces with the peripheral nervous system for the control of a neuroprosthetic limb: a review. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 43.	4.6	48
1132	(\$ell_1,ell_2\$)-RIP and Projected Back-Projection Reconstruction for Phase-Only Measurements. IEEE Signal Processing Letters, 2020, 27, 396-400.	3.6	4
1133	Tile Arrays for Space Based Solar Power Satellites. , 2020, , .		1
1134	Machining/machinability of Rene 65 superalloy for aerospace applications. , 2020, , .		0
1135	Optimal artifact suppression in simultaneous electrocorticography stimulation and recording for bi-directional brain-computer interface applications. Journal of Neural Engineering, 2020, 17, 026038.	3.5	6
1137	Circulating re-entrant waves promote maturation of hiPSC-derived cardiomyocytes in self-organized tissue ring. Communications Biology, 2020, 3, 122.	4.4	32
1138	<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
1139	Sputtered porous Pt for wafer-scale manufacture of low-impedance flexible microelectrodes. Journal of Neural Engineering, 2020, 17, 036029.	3.5	20
1140	Targeted Osmotic Lysis of Highly Invasive Breast Carcinomas Using Pulsed Magnetic Field Stimulation of Voltage-Gated Sodium Channels and Pharmacological Blockade of Sodium Pumps. Cancers, 2020, 12, 1420.	3.7	5

#	ARTICLE	IF	CITATIONS
1141	Principle of whole-cell patch-clamp and its applications in neural interface studies. , 2020, , 25-63.		0
1142	Measurement of residual in vivo Ag ions from transcutaneous electrical stimulation for neuromodulation. Technology and Health Care, 2020, 28, 453-459.	1.2	0
1143	Optic Nerve Regeneration: How Will We Get There?. Journal of Neuro-Ophthalmology, 2020, 40, 234-242.	0.8	10
1144	A GRU-Based Prediction Framework for Intelligent Resource Management at Cloud Data Centres in the Age of 5G. IEEE Transactions on Cognitive Communications and Networking, 2020, 6, 486-498.	7.9	19
1145	Medial forebrain bundle DBS differentially modulates dopamine release in the nucleus accumbens in a rodent model of depression. Experimental Neurology, 2020, 327, 113224.	4.1	13
1146	Electrical stimulation of cranial nerves in cognition and disease. Brain Stimulation, 2020, 13, 717-750.	1.6	82
1147	GHz Ultrasonic Chip-Scale Device Induces Ion Channel Stimulation in Human Neural Cells. Scientific Reports, 2020, 10, 3075.	3.3	14
1148	New era of optogenetics: from the central to peripheral nervous system. Critical Reviews in Biochemistry and Molecular Biology, 2020, 55, 1-16.	5.2	19
1149	mm-Wave Low-Cost 3D Printed MIMO Antennas With Beam Switching Capabilities for 5G Communication Systems. IEEE Access, 2020, 8, 32531-32541.	4.2	22
1150	Signal recovery from stimulation artifacts in intracranial recordings with dictionary learning. Journal of Neural Engineering, 2020, 17, 026023.	3.5	15
1151	Leave the light on: chronic optogenetic tachypacing of human engineered cardiac tissue constructs. Cardiovascular Research, 2020, 116, 1405-1406.	3.8	1
1152	Near-infrared excitation of nitrogen-doped ultrananocrystalline diamond photoelectrodes in saline solution. Diamond and Related Materials, 2020, 103, 107720.	3.9	12
1153	Soft and Ion-Conducting Materials in Bioelectronics: From Conducting Polymers to Hydrogels. Advanced Healthcare Materials, 2020, 9, e1901372.	7.6	71
1154	In vivo imaging of calcium and glutamate responses to intracortical microstimulation reveals distinct temporal responses of the neuropil and somatic compartments in layer II/III neurons. Biomaterials, 2020, 234, 119767.	11.4	24
1155	Phase Calibration of On-Chip Optical Phased Arrays via Interference Technique. IEEE Photonics Journal, 2020, 12, 1-10.	2.0	7
1156	Quantifying the Effect of Registration Error on Spatio-Temporal Fusion. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 487-503.	4.9	24
1157	Circuit Design Considerations for Power-Efficient and Safe Implantable Electrical Neurostimulators. , 2020, , .		4
1158	Neural Signal Blocking Based on Spike Trapping Principle: Effect of Electrode and Pulse Parameters. IEEE Access, 2020, 8, 64545-64554.	4.2	2

#	ARTICLE	IF	CITATIONS
1159	Influence of systematic variations of the stimulation profile on responses evoked with a vestibular implant prototype in humans. <i>Journal of Neural Engineering</i> , 2020, 17, 036027.	3.5	6
1160	Neurovascular coupling during deep brain stimulation. <i>Brain Stimulation</i> , 2020, 13, 916-927.	1.6	11
1161	Quantifying volume conducted potential using stimulation artefact in cortico-cortical evoked potentials. <i>Journal of Neuroscience Methods</i> , 2020, 337, 108639.	2.5	22
1162	Neural selectivity, efficiency, and dose equivalence in deep brain stimulation through pulse width tuning and segmented electrodes. <i>Brain Stimulation</i> , 2020, 13, 1040-1050.	1.6	43
1163	Electronic neural interfaces. <i>Nature Electronics</i> , 2020, 3, 191-200.	26.0	105
1164	Cellular-Scale Microelectrode Arrays to Monitor Movement-Related Neuron Activities in the Epileptic Hippocampus of Awake Mice. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 19-25.	4.2	8
1165	International Consensus Based Review and Recommendations for Minimum Reporting Standards in Research on Transcutaneous Vagus Nerve Stimulation (Version 2020). <i>Frontiers in Human Neuroscience</i> , 2020, 14, 568051.	2.0	143
1166	Electrochemical performance of polymer-derived SiOC and SiTiOC ceramic electrodes for artificial cardiac pacemaker applications. <i>Ceramics International</i> , 2021, 47, 7593-7601.	4.8	6
1167	Cardiac optogenetics: a decade of enlightenment. <i>Nature Reviews Cardiology</i> , 2021, 18, 349-367.	13.7	97
1168	Effects of interphase interval during neuromuscular electrical stimulation of the wrist extensors with maximally tolerated current intensity. <i>Artificial Organs</i> , 2021, 45, 151-158.	1.9	0
1169	Sputtered ruthenium oxide coatings for neural stimulation and recording electrodes. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2021, 109, 643-653.	3.4	6
1170	Design of intracortical microstimulation patterns to control the location, intensity, and quality of evoked sensations in human and animal models. , 2021, , 479-506.		0
1171	The temporal pattern of intracortical microstimulation pulses elicits distinct temporal and spatial recruitment of cortical neuropil and neurons. <i>Journal of Neural Engineering</i> , 2021, 18, 015001.	3.5	22
1172	Neural and electromyography PEDOT electrodes for invasive stimulation and recording. <i>Journal of Materials Chemistry C</i> , 2021, 9, 7243-7263.	5.5	32
1173	Electric field stimulation for tissue engineering applications. <i>BMC Biomedical Engineering</i> , 2021, 3, 1.	2.6	49
1174	Neurostimulator for Hippocampal Memory Prosthesis. <i>Contemporary Clinical Neuroscience</i> , 2021, , 39-56.	0.3	0
1175	Changes in the extracellular microenvironment and osteogenic responses of mesenchymal stem/stromal cells induced by in vitro direct electrical stimulation. <i>Journal of Tissue Engineering</i> , 2021, 12, 204173142097414.	5.5	20
1176	A 24-Channel Neurostimulator IC With Channel-Specific Energy-Efficient Hybrid Preventive-Detective Dynamic-Precision Charge Balancing. <i>IEEE Access</i> , 2021, 9, 95884-95895.	4.2	4

#	ARTICLE	IF	CITATIONS
1177	Rapid Makerspace Microfabrication and Characterization of 3D Microelectrode Arrays (3D MEAs) for Organ-on-a-Chip Models. Journal of Microelectromechanical Systems, 2021, 30, 853-863.	2.5	3
1178	Animal Models of tES: Methods, Techniques, and Safety. , 2021, , 49-66.		1
1179	Intracortical microstimulation for tactile feedback in awake behaving rats. , 2021, , 379-411.		1
1180	State-of-the-Art Technology on MEAs for Interfacing Live Neurons. , 2021, , 1-41.		0
1181	Touch restoration through electrical cortical stimulation in humans. , 2021, , 443-478.		2
1182	Recruitment of upper-limb motoneurons with epidural electrical stimulation of the cervical spinal cord. Nature Communications, 2021, 12, 435.	12.8	92
1183	Low-frequency electrical stimulation reduces cortical excitability in the human brain. NeuroImage: Clinical, 2021, 31, 102778.	2.7	15
1184	Stimulation and Recording of the Hippocampus Using the Same Pt-Ir Coated Microelectrodes. Frontiers in Neuroscience, 2021, 15, 616063.	2.8	9
1185	Nano-optoelectrodes Integrated with Flexible Multifunctional Fiber Probes by High-Throughput Scalable Fabrication. ACS Applied Materials & Interfaces, 2021, 13, 9156-9165.	8.0	13
1186	Photovoltaic neurointerface based on aluminum antimonide nanocrystals. Communications Materials, 2021, 2, .	6.9	23
1187	Falling off a limit cycle using phase-agnostic stimuli: Applications to clinical oscillopathies. Chaos, 2021, 31, 023134.	2.5	2
1188	Wearable and Implantable Electroceuticals for Therapeutic Electrostimulations. Advanced Science, 2021, 8, 2004023.	11.2	73
1189	Impact of Protein Fouling on the Charge Injection Capacity, Impedance, and Effective Electrode Area of Platinum Electrodes for Bionic Devices. ChemElectroChem, 2021, 8, 1078-1090.	3.4	14
1190	Polystyrene Nanopillars with Inbuilt Carbon Nanotubes Enable Synaptic Modulation and Stimulation in Interfaced Neuronal Networks. Advanced Materials Interfaces, 2021, 8, 2002121.	3.7	13
1191	Partial high frequency nerve block decreases neuropathic signaling following chronic sciatic nerve constriction injury. Journal of Neural Engineering, 2021, 18, 026009.	3.5	6
1192	Combining direct current and kilohertz frequency alternating current to mitigate onset activity during electrical nerve block. Journal of Neural Engineering, 2021, 18, 046010.	3.5	9
1193	Clinical Potential of Nerve Input to Tumors: A Bioelectricity Perspective. Bioelectricity, 2021, 3, 14-26.	1.1	4
1194	Enriching neural stem cell and anti-inflammatory glial phenotypes with electrical stimulation after traumatic brain injury in male rats. Journal of Neuroscience Research, 2021, 99, 1864-1884.	2.9	11

#	ARTICLE	IF	CITATIONS
1195	Different effects of monophasic pulses and biphasic pulses applied by a bipolar stimulation electrode in the rat hippocampal CA1 region. BioMedical Engineering OnLine, 2021, 20, 25.	2.7	3
1196	Compliant peripheral nerve interfaces. Journal of Neural Engineering, 2021, 18, 031001.	3.5	33
1197	An In-vitro Study of Electrodes Impedance in Deep Brain Stimulation. Journal of Physics: Conference Series, 2021, 1829, 012019.	0.4	1
1198	Platinum dissolution and tissue response following long-term electrical stimulation at high charge densities. Journal of Neural Engineering, 2021, 18, 036021.	3.5	27
1200	The Future of Neuroscience: Flexible and Wireless Implantable Neural Electronics. Advanced Science, 2021, 8, 2002693.	11.2	47
1201	Development and characterization of a chronic implant mouse model for vagus nerve stimulation. ELife, 2021, 10, .	6.0	28
1202	A hybrid method for real-time stimulation artefact removal during functional electrical stimulation with time-variant parameters. Journal of Neural Engineering, 2021, 18, 046028.	3.5	3
1203	The impact of synchronous versus asynchronous electrical stimulation in artificial vision. Journal of Neural Engineering, 2021, 18, 051001.	3.5	8
1204	Electroactive MnO ₂ -poly(3,4-ethylenedioxythiophene) composite nanocoatings enhance osteoblastic electrical stimulation. Applied Surface Science, 2021, 545, 148827.	6.1	8
1205	A 24-Channel Neurostimulator IC with One-Shot Impedance-Adaptive Channel-Specific Charge Balancing. , 2021, , .		3
1206	Infrared neurostimulation in ex-vivo rat sciatic nerve using 1470 nm wavelength. Journal of Neural Engineering, 2021, 18, 056018.	3.5	10
1207	Single-pulse electrical stimulation methodology in freely moving rat. Journal of Neuroscience Methods, 2021, 353, 109092.	2.5	4
1208	Recent advances in electronic devices for monitoring and modulation of brain. Nano Research, 2021, 14, 3070-3095.	10.4	18
1209	Numerical approximations on the transient analysis of bioelectric phenomena at long time scales via the Mittag-Leffler function. Chaos, Solitons and Fractals, 2021, 145, 110768.	5.1	8
1210	Coulostatics in bioelectrochemistry: A physical interpretation of the electrode-tissue processes from the theory of fractional calculus. Chaos, Solitons and Fractals, 2021, 145, 110787.	5.1	7
1211	CMOS level shifters from 0 to 18ÂV output. Analog Integrated Circuits and Signal Processing, 2021, 107, 617-628.	1.4	4
1212	Visual cortical prosthesis: an electrical perspective. Journal of Medical Engineering and Technology, 2021, 45, 394-407.	1.4	4
1213	Sensory feedback for limb prostheses in amputees. Nature Materials, 2021, 20, 925-939.	27.5	121

#	ARTICLE	IF	CITATIONS
1214	Layer-specific parameters of intracortical microstimulation of the somatosensory cortex. Journal of Neural Engineering, 2021, 18, 055007.	3.5	17
1215	No functional TRPA1 in cardiomyocytes. Acta Physiologica, 2021, 232, e13659.	3.8	10
1216	Vertical Nanowire Electrode Array for Enhanced Neurogenesis of Human Neural Stem Cells via Intracellular Electrical Stimulation. Nano Letters, 2021, 21, 6343-6351.	9.1	15
1217	Fuzzy Logic Control of Heart rate by Electrical Block of Vagus Nerve. , 2021, 2021, 1083-1086.		1
1218	Natural biopolymers as proton conductors in bioelectronics. Biopolymers, 2021, 112, e23433.	2.4	26
1219	Achieving long-term stability of thin-film electrodes for neurostimulation. Acta Biomaterialia, 2022, 139, 65-81.	8.3	36
1220	PEDOT:PSS-Based Bioelectronic Devices for Recording and Modulation of Electrophysiological and Biochemical Cell Signals. Advanced Healthcare Materials, 2021, 10, e2100061.	7.6	92
1221	Electrode Materials for Chronic Electrical Microstimulation. Advanced Healthcare Materials, 2021, 10, e2100119.	7.6	36
1222	Modelling the visual response to an OUREP retinal prosthesis with photoelectric dye coupled to polyethylene film. Journal of Neural Engineering, 2021, 18, 045006.	3.5	1
1223	Pulse Shaping Strategies for Electroceuticals: A Comprehensive Survey of the Use of Interphase Gaps in Miniature Stimulation Systems. IEEE Transactions on Biomedical Engineering, 2021, 68, 1658-1667.	4.2	3
1224	Imaging the Efficiency of Poly(3,4-Ethylenedioxythiophene) Doped with Acid-Functionalized Carbon Nanotube and Iridium Oxide Electrode Coatings for Microstimulation. Advanced NanoBiomed Research, 2021, 1, 2000092.	3.6	9
1225	Emerging Materials and Technologies with Applications in Flexible Neural Implants: A Comprehensive Review of Current Issues with Neural Devices. Advanced Materials, 2021, 33, e2005786.	21.0	51
1226	Kilohertz-frequency stimulation of the nervous system: A review of underlying mechanisms. Brain Stimulation, 2021, 14, 513-530.	1.6	37
1227	Biomedical and Tissue Engineering Strategies to Control Foreign Body Reaction to Invasive Neural Electrodes. Frontiers in Bioengineering and Biotechnology, 2021, 9, 659033.	4.1	19
1228	Energy-Efficient Integrated Circuit Solutions Toward Miniaturized Closed-Loop Neural Interface Systems. Frontiers in Neuroscience, 2021, 15, 667447.	2.8	9
1229	Single-Step Fabrication Method toward 3D Printing Composite Diamond-Titanium Interfaces for Neural Applications. ACS Applied Materials & Interfaces, 2021, 13, 31474-31484.	8.0	6
1230	Nanoengineering InP Quantum Dot-Based Photoactive Biointerfaces for Optical Control of Neurons. Frontiers in Neuroscience, 2021, 15, 652608.	2.8	13
1231	Biomedical Implants with Charge-Transfer Monitoring and Regulating Abilities. Advanced Science, 2021, 8, e2004393.	11.2	18

#	ARTICLE	IF	CITATIONS
1232	Close-Packed PEDOT:PSS-Coated Graphene Microelectrodes for High-Resolution Interrogation of Neural Activity. IEEE Transactions on Electron Devices, 2021, 68, 3080-3086.	3.0	5
1233	Feedback-induced desynchronization and oscillation quenching in a population of globally coupled oscillators. Physical Review E, 2021, 103, 062217.	2.1	1
1234	Safety of electrical stimulation on cerebral cortex. Journal of Intraoperative Neurophysiology, 2021, 3, 1-9.	0.3	0
1235	Charge injection capacity of ferroelectric microelectrodes for bioelectronic applications. AIP Advances, 2021, 11, .	1.3	6
1236	Soft Devices for High-Resolution Neuro-Stimulation: The Interplay Between Low-Rigidity and Resolution. Frontiers in Medical Technology, 2021, 3, 675744.	2.5	7
1237	Electrochemical safety limits for clinical stimulation investigated using depth and strip electrodes in the pig brain. Journal of Neural Engineering, 2021, 18, 046077.	3.5	12
1238	Gate Mechanism and Parameter Analysis of Anodal-First Waveforms for Improving Selectivity of C-Fiber Nerves. Journal of Pain Research, 2021, Volume 14, 1785-1807.	2.0	0
1239	A Reversible Low Frequency Alternating Current Nerve Conduction Block Applied to Mammalian Autonomic Nerves. Sensors, 2021, 21, 4521.	3.8	5
1240	A Biomimetic, SoC-Based Neural Stimulator for Novel Arbitrary-Waveform Stimulation Protocols. Frontiers in Neuroscience, 2021, 15, 697731.	2.8	4
1241	Generating artificial sensations with spinal cord stimulation in primates and rodents. Brain Stimulation, 2021, 14, 825-836.	1.6	12
1242	The Need to Work Arm in Arm: Calling for Collaboration in Delivering Neuroprosthetic Limb Replacements. Frontiers in Neurorobotics, 2021, 15, 711028.	2.8	3
1243	Current-Driven Organic Electrochemical Transistors for Monitoring Cell Layer Integrity with Enhanced Sensitivity. Advanced Healthcare Materials, 2021, 10, e2100845.	7.6	22
1244	Charge injection characteristics of sputtered ruthenium oxide electrodes for neural stimulation and recording. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 229-238.	3.4	4
1246	Electrical Stimulation and Conductive Polymers as a Powerful Toolbox for Tailoring Cell Behaviour in vitro. Frontiers in Medical Technology, 2021, 3, 670274.	2.5	14
1247	A Novel Highly Durable Carbon/Silver/Silver Chloride Composite Electrode for High-Definition Transcranial Direct Current Stimulation. Nanomaterials, 2021, 11, 1962.	4.1	5
1249	An Investigation Into Miniaturised Closed-Loop DBS Devices. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 671-680.	3.2	3
1251	IC-Based Neuro-Stimulation Environment for Arbitrary Waveform Generation. Electronics (Switzerland), 2021, 10, 1867.	3.1	3
1252	Communicationâ€”The Role of Ascorbic Acid Oxidation During Neural Stimulation. Journal of the Electrochemical Society, 2021, 168, 085501.	2.9	2

#	ARTICLE	IF	CITATIONS
1253	Materials Perspectives for Self-Powered Cardiac Implantable Electronic Devices toward Clinical Translation. <i>Accounts of Materials Research</i> , 2021, 2, 739-750.	11.7	16
1254	The influence of contraction type, prior performance of a maximal voluntary contraction and measurement duration on fine-wire EMG amplitude. <i>Journal of Electromyography and Kinesiology</i> , 2021, 59, 102566.	1.7	6
1255	Ambient Light Rejection Integrated Circuit for Autonomous Adaptation on a Sub-Retinal Prosthetic System. <i>Sensors</i> , 2021, 21, 5638.	3.8	4
1256	Human Bodyâ€“Electrode Interfaces for Wide-Frequency Sensing and Communication: A Review. <i>Nanomaterials</i> , 2021, 11, 2152.	4.1	12
1258	A CMOS 21 952-Pixel Multi-Modal Cell-Based Biosensor With Four-Point Impedance Sensing for Holistic Cellular Characterization. <i>IEEE Journal of Solid-State Circuits</i> , 2021, 56, 2438-2451.	5.4	10
1259	Electrical epidural stimulation of the cervical spinal cord: implications for spinal respiratory neuroplasticity after spinal cord injury. <i>Journal of Neurophysiology</i> , 2021, 126, 607-626.	1.8	8
1260	Wireless, battery-free, and fully implantable electrical neurostimulation in freely moving rodents. <i>Microsystems and Nanoengineering</i> , 2021, 7, 62.	7.0	34
1262	Hierarchical platinumâ€“iridium neural electrodes structured by femtosecond laser for superwicking interface and superior charge storage capacity. <i>Bio-Design and Manufacturing</i> , 2022, 5, 163-173.	7.7	8
1263	Residual voltage as an ad-hoc indicator of electrode damage in biphasic electrical stimulation. <i>Journal of Neural Engineering</i> , 2021, 18, 0460c1.	3.5	1
1264	Neuromodulation using ultra low frequency current waveform reversibly blocks axonal conduction and chronic pain. <i>Science Translational Medicine</i> , 2021, 13, .	12.4	20
1265	Grapheneâ€“Based Nanomaterials for Neuroengineering: Recent Advances and Future Prospective. <i>Advanced Functional Materials</i> , 2021, 31, 2104887.	14.9	21
1266	Electrical stimulation of titanium to promote stem cell orientation, elongation and osteogenesis. <i>Acta Biomaterialia</i> , 2022, 139, 204-217.	8.3	35
1267	An Efficient, Large-Gradient, Electrical Stimulation System to Promote Directional Neural Growth. , 2021, , .		1
1268	Carbon-based neural electrodes: promises and challenges. <i>Journal of Neural Engineering</i> , 2021, 18, 041007.	3.5	29
1269	PEDOT:PSSâ€“Coated Stimulation Electrodes Attenuate Irreversible Electrochemical Events and Reduce Cell Electroporabilization. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100214.	3.7	13
1270	Electroosmosis Based Novel Treatment Approach for Cerebral Edema. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 2645-2653.	4.2	6
1271	A Goertzel Filter-Based System for Fast Simultaneous Multi-Frequency EIS. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2021, 68, 3133-3137.	3.0	7
1272	Adaptive current-flow models of ECT: Explaining individual static impedance, dynamic impedance, and brain current density. <i>Brain Stimulation</i> , 2021, 14, 1154-1168.	1.6	11

#	ARTICLE	IF	CITATIONS
1273	Graphene on glassy carbon microelectrodes demonstrate long-term structural and functional stability in neurophysiological recording and stimulation. Journal of Neural Engineering, 2021, 18, 056035.	3.5	4
1274	The software defined implantable modular platform (STELLA) for preclinical deep brain stimulation research in rodents. Journal of Neural Engineering, 2021, 18, 056032.	3.5	8
1275	Bursting auricular vagus nerve stimulation alters heart rate variability in healthy subjects. Physiological Measurement, 2021, 42, .	2.1	3
1276	Neuromodulation. Obstetrics and Gynecology Clinics of North America, 2021, 48, 677-688.	1.9	2
1277	6.5-GHz Brain Stimulation System Using Enhanced Probe Focusing and Switch-Driven Modulation. IEEE Transactions on Microwave Theory and Techniques, 2021, 69, 4107-4117.	4.6	3
1278	Motor Recovery in Stroke Rehabilitation Supported by Robot-Assisted Therapy. Advances in Medical Technologies and Clinical Practice Book Series, 2022, , 304-321.	0.3	1
1279	Implantable Brain Computer Interface Devices Based on Mems Technology. , 2021, , .		0
1280	Quantum dot and electron acceptor nano-heterojunction for photo-induced capacitive charge-transfer. Scientific Reports, 2021, 11, 2460.	3.3	19
1281	Personality and Authenticity in Light of the Memory-Modifying Potential of Optogenetics. AJOB Neuroscience, 2021, 12, 3-21.	1.1	27
1282	Artificial electrical stimulation: Principles, efficacy, and safety. , 2021, , 95-113.		0
1283	Energy-Efficient Electrical Stimulation Systems. , 2021, , 1-26.		0
1284	Biomimetic bidirectional hand neuroprostheses for restoring somatosensory and motor functions. , 2021, , 321-345.		0
1285	Electrodes and instrumentation for neurostimulation. , 2021, , 77-150.		7
1286	Toward nanobioelectronic medicine: Unlocking new applications using nanotechnology. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2021, 13, e1693.	6.1	14
1287	Clinical Research and Methodological Aspects for tDCS Research. , 2021, , 265-279.		1
1288	A CMOS Dual-Mode Brain-Computer Interface Chipset With 2-mV Precision Time-Based Charge Balancing and Stimulation-Side Artifact Suppression. IEEE Journal of Solid-State Circuits, 2022, 57, 1824-1840.	5.4	24
1289	Dynamic Interactions of Retinal Prosthesis Electrodes with Neural Tissue and Materials Science in Electrode Design. Biological and Medical Physics Series, 2007, , 209-226.	0.4	4
1290	Visual Prosthesis for Optic Nerve Stimulation. Biological and Medical Physics Series, 2009, , 43-83.	0.4	8

#	ARTICLE	IF	CITATIONS
1291	A New Auditory Prosthesis Using Deep Brain Stimulation: Development and Implementation. Biological and Medical Physics Series, 2009, , 117-153.	0.4	3
1292	Spinal Cord Stimulation: Engineering Approaches to Clinical and Physiological Challenges. Biological and Medical Physics Series, 2009, , 155-194.	0.4	18
1293	The Electrochemistry of Charge Injection at the Electrode/Tissue Interface. Biological and Medical Physics Series, 2010, , 85-138.	0.4	30
1294	Conducting Polymers in Neural Stimulation Applications. Biological and Medical Physics Series, 2009, , 217-252.	0.4	15
1295	Flexible Electrode for Implantable Neural Devices. , 2014, , 121-156.		4
1296	Multielectrode and Multitransistor Arrays for In Vivo Recording. , 2014, , 239-267.		13
1297	Conductive Hydrogels for Bioelectronic Interfaces. , 2020, , 237-265.		3
1298	The Boston Retinal Implant. , 2017, , 85-97.		3
1299	A Head Mountable Deep Brain Stimulation Device for Laboratory Animals. Lecture Notes in Electrical Engineering, 2011, , 275-280.	0.4	6
1301	Medical Bionics. , 2014, , 327-341.		7
1302	Interface Circuits. , 2008, , 465-493.		1
1303	Enhanced neural stem cell functions in conductive annealed carbon nanofibrous scaffolds with electrical stimulation. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 2485-2494.	3.3	89
1304	Stimulus waveform design for decreasing charge and increasing stimulation selectivity in retinal prostheses. Healthcare Technology Letters, 2020, 7, 66-71.	3.3	9
1305	Role of skin tissue layers and ultra-structure in transcutaneous electrical stimulation including tDCS. Physics in Medicine and Biology, 2020, 65, 225018.	3.0	18
1306	An HFAC block-capable and module-extendable 4-channel stimulator for acute neurophysiology. Journal of Neural Engineering, 2020, 17, 046013.	3.5	7
1307	A biomimetic electrical stimulation strategy to induce asynchronous stochastic neural activity. Journal of Neural Engineering, 2020, 17, 046019.	3.5	27
1308	Chronic intracochlear electrical stimulation at high charge densities: reducing platinum dissolution. Journal of Neural Engineering, 2020, 17, 056009.	3.5	10
1309	Influence of Pulse Waveform and Frequency on Evoked Torque, Stimulation Efficiency, and Discomfort in Healthy Subjects. American Journal of Physical Medicine and Rehabilitation, 2021, 100, 161-167.	1.4	7

#	ARTICLE	IF	CITATIONS
1318	A Trimodal Wireless Implantable Neural Interface System-on-Chip. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1207-1217.	4.0	58
1319	Simulation-Based Optimization of Figure-of-Eight Coil Designs and Orientations for Magnetic Stimulation of Peripheral Nerve. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 2901-2913.	4.9	11
1320	Cellular and Network Effects of Transcranial Direct Current Stimulation. Frontiers in Neuroscience, 2012, , 55-91.	0.0	12
1321	Integration of Microfluidic Capabilities into Micromachined Neural Implants. International Journal of Micro-nano Scale Transport, 2010, 1, 139-158.	0.2	4
1322	Efficient photocapacitors via ternary hybrid photovoltaic optimization for photostimulation of neurons. Biomedical Optics Express, 2020, 11, 5237.	2.9	11
1323	Bidirectional optical neuromodulation using capacitive charge-transfer. Biomedical Optics Express, 2020, 11, 6068.	2.9	7
1324	Discrete Pattern of Burst Stimulation in the Ventrobasal Thalamus for Anti-Nociception. PLoS ONE, 2013, 8, e67655.	2.5	19
1325	Investigation of a New Electrode Array Technology for a Central Auditory Prosthesis. PLoS ONE, 2013, 8, e82148.	2.5	11
1326	Chronic Electrical Stimulation with a Suprachoroidal Retinal Prosthesis: A Preclinical Safety and Efficacy Study. PLoS ONE, 2014, 9, e97182.	2.5	44
1327	Leg Regrowth in <i>Blaberus discoidalis</i> (Discoid Cockroach) following Limb Autotomy versus Limb Severance and Relevance to Neurophysiology Experiments. PLoS ONE, 2016, 11, e0146778.	2.5	3
1328	Pulsatile desynchronizing delayed feedback for closed-loop deep brain stimulation. PLoS ONE, 2017, 12, e0173363.	2.5	74
1329	Rancang Bangun Sistem Pengendali Tegangan Stimulasi Elektrostimulator Otomatis Berbasis Resistansi Tubuh. Jurnal Biosains Pascasarjana, 2019, 20, 146.	0.2	3
1330	Are long stimulus pulse durations the answer to improving spatial resolution in retinal prostheses?. Annals of Translational Medicine, 2016, 4, 434-434.	1.7	2
1332	Phosphene perceptions and safety of chronic visual cortex stimulation in a blind subject. Journal of Neurosurgery, 2020, 132, 2000-2007.	1.6	19
1333	A 360° electronic device for recording high-resolution intraoperative electrocorticography of the brain during awake craniotomy. Journal of Neurosurgery, 2020, 133, 443-450.	1.6	11
1334	Optimizing the neuron-electrode interface for chronic bioelectronic interfacing. Neurosurgical Focus, 2020, 49, E7.	2.3	8
1335	Basic principles of electrical stimulation and recording for intraoperative neurophysiological monitoring. Journal of Intraoperative Neurophysiology, 2020, 2, 17-26.	0.3	2
1336	Organic electrode coatings for next-generation neural interfaces. Frontiers in Neuroengineering, 2014, 7, 15.	4.8	211

#	ARTICLE	IF	CITATIONS
1337	In vivo comparison of the charge densities required to evoke motor responses using novel annular penetrating microelectrodes. <i>Frontiers in Neuroengineering</i> , 2015, 08, 5.	4.8	8
1338	Pulse Width Programming in Spinal Cord Stimulation: A Clinical Study. <i>Pain Physician</i> , 2010, 4;13, 321-335.	0.4	63
1339	Osteogenic differentiation of electrostimulated human mesenchymal stem cells seeded on silk-fibroin films. <i>Turkish Journal of Biology</i> , 2016, 40, 462-472.	0.8	3
1340	Charge-balanced spike timing control for phase models of spiking neurons. <i>Discrete and Continuous Dynamical Systems</i> , 2010, 28, 1413-1435.	0.9	34
1341	A novel functional electrical stimulation-control system for restoring motor function of post-stroke hemiplegic patients. <i>Neural Regeneration Research</i> , 2014, 9, 2102.	3.0	17
1342	Modern Monitoring Intraocular Pressure Sensing Devices Based on Application Specific Integrated Circuits. <i>Journal of Biomaterials and Nanobiotechnology</i> , 2012, 03, 301-309.	0.5	19
1343	Application of Capacitive Deionization Packed Ion Exchange Resins in Two Flow Channels. <i>Journal of the Korean Electrochemical Society</i> , 2015, 18, 24-30.	0.1	1
1344	Do we Need to Wake Patients up during Cortical Surgery?. <i>Journal of Cancer Research Updates</i> , 2018, 7, 84-96.	0.3	3
1345	Design of a Bioelectronics Hybrid System in Real Time and in Closed Loop. <i>Electronics</i> , 0, , .	0.3	1
1346	Importance of Thickness in Human Cardiomyocyte Network for Effective Electrophysiological Stimulation Using On-Chip Extracellular Microelectrodes. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 06FK03.	1.5	1
1347	Magneto-Optogenetic Deep-Brain Multimodal Neurostimulation. <i>Advanced Intelligent Systems</i> , 2022, 4, 2100082.	6.1	5
1348	Stimulation of the dorsal root ganglion using an Injectrode [®] . <i>Journal of Neural Engineering</i> , 2021, 18, 056068.	3.5	9
1349	Neurostimulation Design from an Energy and Information Transfer Perspective. <i>Integrated Circuits and Systems</i> , 2011, , 453-480.	0.2	0
1350	Microtechnology for Stem Cell Culture. <i>Pancreatic Islet Biology</i> , 2011, , 465-482.	0.3	0
1351	Materials Interaction in Cofired Platinum /Alumina High Density Feedthrough for Implantable Neurostimulator Applications. <i>International Symposium on Microelectronics</i> , 2011, 2011, 000534-000538.	0.0	0
1352	Structures, Materials, and Processes at the Electrode-to-Tissue Interface. , 2011, , 113-135.		0
1354	Materials Interaction in Cofired Platinum /Alumina High Density Feedthrough for Implantable Applications. <i>Additional Conferences (Device Packaging HiTEC HiTEN & CICMT)</i> , 2012, 2012, 000557-000562.	0.2	0
1356	Thin Film Coatings as Electrodes in Neuroscience. <i>Biological and Medical Physics Series</i> , 2013, , 301-330.	0.4	0

#	ARTICLE	IF	CITATIONS
1357	An Arbitrary Waveform 16 Channel Neural Stimulator with Adaptive Supply Regulator in 0.35 μ m HV CMOS for Visual Prosthesis. Journal of Semiconductor Technology and Science, 2013, 13, 79-86.	0.4	0
1358	In-Cell Recording and Stimulation by Engulfment Mechanisms. , 2014, , 45-70.		0
1359	Vestibular Prosthesis, Interface. , 2014, , 1-4.		0
1360	Functional Electrical Stimulation. , 2014, , 369-370.		1
1361	Mesoporous Carbon Electrodes for Capacitive Deionization. Journal of the Korean Electrochemical Society, 2014, 17, 57-64.	0.1	2
1362	Methods and Technologies for Low-Intensity Transcranial Electrical Stimulation: Waveforms, Terminology, and Historical Notes. , 2015, , 7-16.		1
1363	Materials directed to implants for repairing Central Nervous System. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2014, 53, 249-259.	1.9	0
1364	Electroactive Anti-microbial Surfaces. , 2015, , 41-60.		0
1365	Bladder Control Implants. , 2015, , 1-19.		0
1366	The Effectiveness of the Functional Magnetic Stimulation Therapy in Treating Sciatica Syndrome. Open Journal of Therapy and Rehabilitation, 2015, 03, 63-69.	0.3	1
1367	Visual Stimulation Systems. , 2015, , 1-23.		0
1368	Multichannel Microstimulating SoC. , 2015, , 1-32.		0
1369	Power-Efficient Wireless Neural Stimulating System Design for Implantable Medical Devices. IEIE Transactions on Smart Processing and Computing, 2015, 4, 133-140.	0.4	3
1370	Development of Multi-Array Electrode and Programmable Multi-channel Electrical Stimulator for Firing Trigger Point of Myofascial Pain Syndrome. Journal of Biomedical Engineering Research, 2015, 36, 221-227.	0.1	0
1371	System Design of Neural Stimulators. Analog Circuits and Signal Processing Series, 2016, , 67-78.	0.3	0
1372	An Integrated Optical Coherence Microscopy Imaging and Optical Stimulation System for Optogenetic Pacing in Drosophila melanogaster. , 2016, , .		0
1374	Modelling and Simulation of Biological Systems in Medical Applications. , 2016, , 233-268.		0
1379	Surface characterization of platinum stimulating electrodes using an electrochemical scanning method. Materiali in Tehnologije, 2017, 51, 981-988.	0.5	0

#	ARTICLE	IF	CITATIONS
1380	Functional Electrical Stimulation. Springer Theses, 2019, , 17-28.	0.1	0
1381	Animal Studies About Intraoperative Neuromonitoring of Thyroid Surgery. Journal of Clinical Otolaryngology, 2018, 29, 177-181.	0.1	0
1382	The Human Body: A Special Environment. , 2019, , 97-200.		0
1386	Early Experimental Results of Nerve Gap Bridging with Silicon Microwires. Innovative Biosystems and Bioengineering, 2019, 3, 168-175.	0.7	0
1387	Activation of the primary motor cortex using fullyâ€‘implanted electrical sciatic nerve stimulation. Experimental and Therapeutic Medicine, 2019, 18, 3357-3364.	1.8	1
1388	An Improved Intermittent Electrical Stimulation Therapy for Penicillin-induced Seizure Suppression. , 2019, , .		0
1391	Methods for Optimizing Stimulus Waveforms for Electroceutical Control. , 2020, , 1-7.		0
1392	Design and Implementation of a Low Power Energy Harvested Head-mountable Deep Brain Stimulation Device. , 2020, , .		0
1396	A Generic Sequential Stimulation Adapter for Reducing Muscle Fatigue during Functional Electrical Stimulation. Sensors, 2021, 21, 7248.	3.8	2
1397	New approach of using cortico-cortical evoked potential for functional brain evaluation. Annals of Clinical Neurophysiology, 2021, 23, 69-81.	0.2	1
1398	A Hydrogel Ionic Circuit Based Highâ€‘Intensity Iontophoresis Device for Intraocular Macromolecule and Nanoparticle Delivery. Advanced Materials, 2022, 34, e2107315.	21.0	18
1400	Polyaniline coating electrochemical properties improvement after roughened platinum substrate and its anti-wear performance study. International Journal of Applied Electromagnetics and Mechanics, 2020, 64, 1477-1483.	0.6	0
1402	A Neurostimulator IC With Impedance-Aware Dynamic-Precision One-Shot Charge Balancing. IEEE Solid-State Circuits Letters, 2021, 4, 202-205.	2.0	5
1403	Current-Based Neurostimulation Circuit and System Techniques. , 2020, , 1-26.		0
1405	Transcranial Electrical Stimulation. , 2020, , 271-292.		1
1406	Extending Randlesâ€™s Battery Model to Predict Impedance, Chargeâ€‘Voltage, and Runtime Characteristics. IEEE Access, 2020, 8, 85321-85328.	4.2	5
1408	Artificial Retina: A Future Cellular-Resolution Brain-Machine Interface. The Frontiers Collection, 2020, , 443-465.	0.2	13
1409	Electronic Retinal Prostheses. , 2020, , 642-668.		0

#	ARTICLE	IF	CITATIONS
1410	Argus II Prosthetic Vision. , 2020, , 463-486.		1
1411	Improving Deep Brain Stimulation Electrode Performance in vivo Through Use of Conductive Hydrogel Coatings. Frontiers in Neuroscience, 2021, 15, 761525.	2.8	9
1412	A Multimodal Neuroprosthetic Interface to Record, Modulate and Classify Electrophysiological Biomarkers Relevant to Neuropsychiatric Disorders. Frontiers in Bioengineering and Biotechnology, 2021, 9, 770274.	4.1	4
1413	A real-time system for multisite stimulation on living neural networks. , 2009, , .		0
1418	Nanofibrous PEDOT-Carbon Composite on Flexible Probes for Soft Neural Interfacing. Frontiers in Bioengineering and Biotechnology, 2021, 9, 780197.	4.1	5
1419	Think big, see smallâ€”A review of nanomaterials for neural interfaces. Nano Select, 2022, 3, 903-918.	3.7	8
1420	Development and Characterization of Novel Conductive Sensing Fibers for In Vivo Nerve Stimulation. Sensors, 2021, 21, 7581.	3.8	1
1421	Experimental deep brain stimulation in rodent models of movement disorders. Experimental Neurology, 2022, 348, 113926.	4.1	10
1422	The development of microfabricated solenoids with magnetic cores for micromagnetic neural stimulation. Microsystems and Nanoengineering, 2021, 7, 91.	7.0	12
1423	Selective activation of central thalamic fiber pathway facilitates behavioral performance in healthy non-human primates. Scientific Reports, 2021, 11, 23054.	3.3	11
1424	Fabrication of vertically aligned PEDOT nanotube arrays on microelectrodes to interface neurons. Electrochimica Acta, 2022, 404, 139583.	5.2	7
1425	Case Report: Initial Evidence of Safety and Efficacy of High Definition-Transcranial Direct Current Stimulation in a Patient With Neuropathic Pain and Implanted Spinal Cord Stimulator. Frontiers in Pain Research, 2021, 2, 753464.	2.0	1
1426	Recent Progress in Materials Chemistry to Advance Flexible Bioelectronics in Medicine. Advanced Materials, 2022, 34, e2106787.	21.0	44
1427	Electroresponsive Hydrogels for Therapeutic Applications in the Brain. Macromolecular Bioscience, 2022, 22, e2100355.	4.1	14
1428	Magnetoelectric Bio-Implants Powered and Programmed by a Single Transmitter for Coordinated Multisite Stimulation. IEEE Journal of Solid-State Circuits, 2022, 57, 818-830.	5.4	9
1429	Accurate and Stable Chronic Voltammetric Measurements in the Brain Enabled by a Replaceable Subcutaneous Reference Electrode. SSRN Electronic Journal, 0, , .	0.4	0
1430	Optimizing charge-balanced pulse stimulation for desynchronization. Chaos, 2022, 32, 013103.	2.5	1
1431	The Impact of Size and Position of Reference Electrode on the Localization of Biphasic Electrotactile Stimulation on the Fingertips. IEEE Transactions on Haptics, 2022, 15, 255-266.	2.7	6

#	ARTICLE	IF	CITATIONS
1432	Coactivation Method Based on Common and Differential Modes for Joint Angle Control for Functional Electrical Stimulation Control. , 2020, , .		1
1433	Mechanism of peripheral nerve modulation and recent applications. International Journal of Optomechatronics, 2021, 15, 182-198.	6.6	8
1434	A Soft Somesthetic Robotic Finger Based on Conductive Working Liquid and an Origami Structure. , 2021, , .		1
1435	Practical Measurement of Voltage-Controlled Current Source Output Impedance for Applications in Transcranial Electrical Stimulation. , 2021, , .		1
1436	A 4-Channel NMES IC for Wearable Applications. , 2021, , .		1
1437	Feasibility of Direct Current stimulation through hair using a dry electrode: potential for transcranial Direct Current Stimulation (tDCS) application*. , 2021, 2021, 1584-1587.		0
1438	Transcranial Electrical Stimulation for Psychiatric Disorders in Adults: A Primer. Focus (American) Tj ETQq0 0 0 rgBT /QOverlock_10 Tf 50 50	0.8	2
1439	Strategies for interface issues and challenges of neural electrodes. Nanoscale, 2022, 14, 3346-3366.	5.6	18
1440	Glossary of Neurostimulation Terminology: A Collaborative Neuromodulation Foundation, Institute of Neuromodulation, and International Neuromodulation Society Project. Neuromodulation, 2022, 25, 1050-1058.	0.8	6
1441	An active charge balancing method suitable for integration in the output-stage of electrical neural stimulators. Analog Integrated Circuits and Signal Processing, 2022, 111, 89.	1.4	1
1442	A Functional Electrical Stimulator to Enable Grasping Through Wrist Flexion. International Journal of Biology and Biomedical Engineering, 2022, 16, 19-29.	0.3	0
1443	Investigation of Long-term Corrosion of AA2024 and AA5119 Aluminum Alloys under chromate coating in Marine Atmosphere by Electrochemical Impedance Technology. International Journal of Electrochemical Science, 0, , ArticleID:22014.	1.3	4
1444	Fitting the determined impedance in the guinea pig inner ear to Randles circuit using square error minimization in the range of 100 Hz to 50 kHz. Biomedical Physics and Engineering Express, 2022, 8, 025005.	1.2	2
1445	A Multi-Channel Stimulator With High-Resolution Time-to-Current Conversion for Vagal-Cardiac Neuromodulation. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 1186-1195.	4.0	12
1447	<i>In Vivo</i> Organic Bioelectronics for Neuromodulation. Chemical Reviews, 2022, 122, 4826-4846.	47.7	55
1448	Neuromodulation in 2035. Neurology, 2022, 98, 65-72.	1.1	14
1449	Visual Stimulation Systems. , 2022, , 517-539.		0
1450	Multichannel Microstimulating SoC. , 2022, , 1285-1316.		2

#	ARTICLE	IF	CITATIONS
1451	Semiconducting Polymers for Neural Applications. Chemical Reviews, 2022, 122, 4356-4396.	47.7	59
1452	Bladder Control Implants. , 2022, , 3-20.		0
1454	Current-Based Neurostimulation Circuit and System Techniques. , 2022, , 445-469.		1
1455	Handling a mature calcium signature through optogenetics improves the differentiation of primary murine myotubes. Cell Calcium, 2022, 103, 102546.	2.4	3
1456	Cathodic- and anodic-pulses can alternately activate different sub-populations of neurons during sustained high-frequency stimulation of axons in rat hippocampus. Journal of Neural Engineering, 2022, , .	3.5	1
1457	Morphology-dependent electrochemical stability of electrodeposited polypyrrole/nano-ZnO composite coatings. Materials Chemistry and Physics, 2022, 279, 125775.	4.0	8
1458	Effects of nanostructuration on the electrochemical performance of metallic bioelectrodes. Nanoscale, 2022, 14, 3179-3190.	5.6	6
1459	Selective Activation of Retinal Ganglion Cell Subtypes Through Targeted Electrical Stimulation Parameters. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 350-359.	4.9	1
1460	Chronic electrical stimulation of peripheral nerves via deep-red light transduced by an implanted organic photocapacitor. Nature Biomedical Engineering, 2022, 6, 741-753.	22.5	59
1461	A New Implantable Closed-Loop Clinical Neural Interface: First Application in Parkinsonâ€™s Disease. Frontiers in Neuroscience, 2021, 15, 763235.	2.8	24
1464	Noninvasive Electrical Brain Stimulation of the Central Nervous System. , 2022, , 1-33.		0
1465	Spinal Cord Stimulation Research in the Restoration of Motor, Sensory, and Autonomic Function for Individuals Living With Spinal Cord Injuries: A Scoping Review. Archives of Physical Medicine and Rehabilitation, 2022, 103, 1387-1397.	0.9	15
1466	Optogenetics: implications for Alzheimerâ€™s disease research and therapy. Molecular Brain, 2022, 15, 20.	2.6	14
1467	Poly(3,4-ethylenedioxythiophene)-Based Neural Interfaces for Recording and Stimulation: Fundamental Aspects and In Vivo Applications. Advanced Science, 2022, 9, e2104701.	11.2	32
1468	Induction and Suppression of Cell Lysis in an Electrokinetic Microfluidic System. Electrophoresis, 2022, , .	2.4	2
1469	Light Stimulation of Neurons on Organic Photocapacitors Induces Action Potentials with Millisecond Precision. Advanced Materials Technologies, 2022, 7, .	5.8	7
1470	Control of coupled neural oscillations using near-periodic inputs. Chaos, 2022, 32, 033130.	2.5	8
1471	Concurrent stimulation and sensing in bi-directional brain interfaces: a multi-site translational experience. Journal of Neural Engineering, 2022, 19, 026025.	3.5	28

#	ARTICLE	IF	CITATIONS
1472	Micropyramid structured photo capacitive interfaces. Nanotechnology, 2022, 33, 245302.	2.6	0
1473	A Study on Biocompatible Polymer-Based Packaging of Neural Interface for Chronic Implantation. Micromachines, 2022, 13, 516.	2.9	6
1474	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
1475	An Anodic Phase Can Facilitate Rather Than Weaken a Cathodic Phase to Activate Neurons in Biphasic-Pulse Axonal Stimulations. Frontiers in Neuroscience, 2022, 16, 823423.	2.8	1
1476	Space-controllable TiO ₂ @IrO ₂ core-shell nanotube array as a bio-interface electrode. Surface and Coatings Technology, 2022, 435, 128271.	4.8	3
1477	Skeletal muscle differentiation of human iPSCs meets bioengineering strategies: perspectives and challenges. Npj Regenerative Medicine, 2022, 7, 23.	5.2	33
1478	Optogenetics in cardiology: methodology and future applications. International Journal of Arrhythmia, 2022, 23, .	0.6	1
1479	Towards optical neuromodulation using nitrogen-doped ultrananocrystalline diamond photoelectrodes. Surfaces and Interfaces, 2022, 30, 101850.	3.0	3
1480	Isolating two sources of variability of subcortical stimulation to quantify fluctuations of corticospinal tract excitability. Clinical Neurophysiology, 2022, 138, 134-142.	1.5	14
1483	Modulation of sensation intensity in the lower limb via Transcutaneous Electrical Nerve Stimulation. , 2021, 2021, 6470-6474.		3
1484	On the Design of an Efficient Inductive Wireless Power Transfer for Passive Neurostimulation Systems. , 2021, 2021, 7497-7501.		1
1485	An Implantable 8-Contact Sense and Stimulation System for Continuous Recording. , 2021, , .		0
1486	Electrical response of retinal ganglion cells in an N-methyl-N-nitrosourea-induced retinal degeneration porcine model. Scientific Reports, 2021, 11, 24135.	3.3	6
1487	Ion-Depleting Action of Perm-Selective Membranes for Enhancing Electrical Communication and Gated Ion Channel Activity in Cell Cultures. ACS Biomaterials Science and Engineering, 2022, 8, 4618-4621.	5.2	1
1488	Electrical Stimulation and Cellular Behaviors in Electric Field in Biomedical Research. Materials, 2022, 15, 165.	2.9	20
1489	A Hydrogel-Based Microfluidic Nerve Cuff for Neuromodulation of Peripheral Nerves. Micromachines, 2021, 12, 1522.	2.9	5
1491	Using a Digital Twin of an Electrical Stimulation Device to Monitor and Control the Electrical Stimulation of Cells in vitro. Frontiers in Bioengineering and Biotechnology, 2021, 9, 765516.	4.1	16
1492	Engineering Tissues of the Central Nervous System: Interfacing Conductive Biomaterials with Neural Stem/Progenitor Cells. Advanced Healthcare Materials, 2022, 11, e2101577.	7.6	15

#	ARTICLE	IF	CITATIONS
1493	Piezoelectric ultrasound energyâ€“harvesting device for deep brain stimulation and analgesia applications. <i>Science Advances</i> , 2022, 8, eabr0159.	10.3	55
1505	The Influence of Electrode Properties on Induced Voltage Gradient Along the Rat Optic Nerve. <i>IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology</i> , 2022, 6, 321-330.	3.4	1
1506	Optoelectronic Neural Interfaces Based on Quantum Dots. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 20468-20490.	8.0	21
1507	Minimal handgrip force is needed for transcutaneous electrical stimulation to improve hand functions of patients with severe spinal cord injury. <i>Scientific Reports</i> , 2022, 12, 7733.	3.3	10
1508	Bionic Prostheses: The Emerging Alternative to Vascularised Composite Allotransplantation of the Limb. <i>Frontiers in Surgery</i> , 2022, 9, .	1.4	0
1509	RuO ₂ Supercapacitor Enables Flexible, Safe, and Efficient Optoelectronic Neural Interface. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	15
1510	Muscle contractions and pain sensation accompanying high-frequency electroporation pulses. <i>Scientific Reports</i> , 2022, 12, 8019.	3.3	22
1511	Bioelectric Potential in Next-Generation Organoids: Electrical Stimulation to Enhance 3D Structures of the Central Nervous System. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, .	3.7	8
1512	VNS parameters for clinical response in Epilepsy. <i>Brain Stimulation</i> , 2022, 15, 814-821.	1.6	22
1513	Contractile force assessment methods for in vitro skeletal muscle tissues. <i>ELife</i> , 0, 11, .	6.0	11
1514	Evaluation of Activated Carbon and Platinum Black as High-Capacitance Materials for Platinum Electrodes. <i>Sensors</i> , 2022, 22, 4278.	3.8	3
1516	Kilohertz alternating current neuromodulation of the pudendal nerves: effects on the anal canal and anal sphincter in rats. <i>Journal of Applied Biomedicine</i> , 2022, 20, 56-69.	1.7	0
1517	Electrical stimulation through conductive scaffolds for cardiomyocyte tissue engineering: Systematic review and narrative synthesis. <i>Annals of the New York Academy of Sciences</i> , 2022, 1515, 105-119.	3.8	3
1518	Direct measurement of oxygen reduction reactions at neurostimulation electrodes. <i>Journal of Neural Engineering</i> , 2022, 19, 036045.	3.5	19
1519	Recent progress of electroactive interface in neural engineering. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , 2023, 15, .	6.1	6
1521	Neurophysiology during epilepsy surgery. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2022, , 103-121.	1.8	1
1523	Safety issues during surgical monitoring. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2022, , 83-99.	1.8	0
1524	Electroencephalography, electrocorticography, and cortical stimulation techniques. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2022, , 11-38.	1.8	3

#	ARTICLE	IF	CITATIONS
1525	Vestibular Prosthesis, Interface. , 2022, , 3507-3509.		0
1526	Methods for Optimizing Stimulus Waveforms for Electroceutical Control. , 2022, , 2024-2029.		0
1527	Finding the Location of Axonal Activation by a Miniature Magnetic Coil. Frontiers in Computational Neuroscience, 0, 16, .	2.1	4
1528	Recent advances in the analysis and control of large populations of neural oscillators. Annual Reviews in Control, 2022, 54, 327-351.	7.9	7
1529	A biomimetic elastomeric robot skin using electrical impedance and acoustic tomography for tactile sensing. Science Robotics, 2022, 7, .	17.6	61
1530	Low-Power and Eco-Friendly Temperature Sensor Based on Gelatin Nanocomposite. Nanomaterials, 2022, 12, 2227.	4.1	10
1531	Flexible ultrasound-induced retinal stimulating piezo-arrays for biomimetic visual prostheses. Nature Communications, 2022, 13, .	12.8	48
1533	Robust Enhancement of Motor Sequence Learning with 4mA Transcranial Electric Stimulation. SSRN Electronic Journal, 0, , .	0.4	0
1534	Laser-Microfabricated Polymer Multielectrodes for Intraspinal Microstimulation. IEEE Transactions on Biomedical Engineering, 2023, 70, 354-365.	4.2	2
1536	Energy efficiency of pulse shaping in electrical stimulation: the interdependence of biophysical effects and circuit design losses. Biomedical Physics and Engineering Express, 2022, 8, 065009.	1.2	2
1537	MotiMove: Multiâ€purpose transcutaneous functional electrical stimulator. Artificial Organs, 0, , .	1.9	2
1538	Accurate and stable chronic inÂvivo voltammetry enabled by a replaceable subcutaneous reference electrode. IScience, 2022, 25, 104845.	4.1	10
1539	Spinal Evoked Compound Action Potentials in Rats With Clinically Relevant Stimulation Modalities. Neuromodulation, 2023, 26, 68-77.	0.8	6
1540	Biomedical data visualization and clinical decision-making in rodents using a multi-usage wireless brain stimulator with a novel embedded design. , 2022, , 187-206.		0
1541	Somatosensory Neuromodulation with a Focus Towards Clinical Systems. , 2022, , 1-55.		0
1542	Identification of Wrist Elastic Moment in Healthy Subjects for Control by Functional Electrical Stimulation. , 2022, , .		0
1543	Energy Savings of Multi-Channel Neurostimulators with Non-Rectangular Current-Mode Stimuli Using Multiple Supply Rails. , 2022, , .		3
1544	A Fully Integrated, Power-Efficient, 0.07â€2.08 mA, High-Voltage Neural Stimulator in a Standard CMOS Process. Sensors, 2022, 22, 6429.	3.8	3

#	ARTICLE	IF	CITATIONS
1545	An All-digital Programmable Current-limited Discharge Circuitry for a Safe Electrical Stimulation. , 2022, , .		0
1546	The effects of electrical stimulation on glial cell behaviour. BMC Biomedical Engineering, 2022, 4, .	2.6	5
1547	Effects of central nervous system electrical stimulation on non-neuronal cells. Frontiers in Neuroscience, 0, 16, .	2.8	1
1548	Machine Learning for Bioelectronics on Wearable and Implantable Devices: Challenges and Potential. Tissue Engineering - Part A, 2023, 29, 20-46.	3.1	15
1549	Computer Simulation of the Electrical Stimulation of the Human Vestibular System: Effects of the Reactive Component of Impedance on Voltage Waveform and Nerve Selectivity. JARO - Journal of the Association for Research in Otolaryngology, 2022, 23, 815-833.	1.8	2
1550	Multichannel stimulation module as a tool for animal studies on cortical neural prostheses. Frontiers in Medical Technology, 0, 4, .	2.5	0
1551	Deep brain stimulation of the subthalamic nucleus for epilepsy. Acta Neurologica Scandinavica, 2022, 146, 798-804.	2.1	7
1552	Durable scalable <sc>3D SLA</sc>â€printed cuff electrodes with high performance carbon + <sc>PEDOT</sc>:<sc>PSS</sc>â€based contacts. Artificial Organs, 2022, 46, 2085-2096.	1.9	2
1553	Short-pulsed micro-magnetic stimulation of the vagus nerve. Frontiers in Physiology, 0, 13, .	2.8	4
1554	A universal model of electrochemical safety limits in vivo for electrophysiological stimulation. Frontiers in Neuroscience, 0, 16, .	2.8	6
1555	Phantom Construction and Equipment Configurations for Characterizing Electrical Properties Using MRI. Advances in Experimental Medicine and Biology, 2022, , 83-110.	1.6	0
1556	G-Optrode Bio-Interfaces for Non-Invasive Optical Cell Stimulation: Design and Evaluation. Biosensors, 2022, 12, 808.	4.7	1
1557	Artifact propagation in subdural cortical electrostimulation: Characterization and modeling. Frontiers in Neuroscience, 0, 16, .	2.8	2
1560	Electrochemical Testing of a New Polyimide Thin Film Electrode for Stimulation, Recording, and Monitoring of Brain Activity. Micromachines, 2022, 13, 1798.	2.9	1
1561	Selective Neural Electrical Stimulation of an Injured Facial Nerve Using Chronically Implanted Dual Cuff Electrodes. Brain Sciences, 2022, 12, 1457.	2.3	0
1562	Effects of electric field on vibrational resonances in Hindmarshâ€Rose neuronal systems for signal detection. Chinese Physics B, 2023, 32, 048701.	1.4	1
1563	Comparison of response properties of the electrically stimulated auditory nerve reported in human listeners and in animal models. Hearing Research, 2022, 426, 108643.	2.0	4
1564	Minimally invasive current-controlled electrical stimulation system for bacteria using highly capacitive conducting polymer-modified electrodes. Bioelectrochemistry, 2023, 149, 108290.	4.6	1

#	ARTICLE	IF	CITATIONS
1565	Efficient autonomous navigation for terrestrial insect-machine hybrid systems. Sensors and Actuators B: Chemical, 2023, 376, 132988.	7.8	14
1566	FARA: A Fast Artifact Recovery Algorithm with Optimum Stimulation Waveform for Single-Cell Resolution Massively Parallel Neural Interfaces. , 2022, , .		1
1567	Experimental Validation of a High-Voltage Compliant Neural Stimulator implemented in a Standard 1.8V/3.3V CMOS Process. , 2022, , .		1
1568	Freeform Stimulator (FS) Implant Control System for Non-Pulsatile Arbitrary Waveform Neuromodulation. , 2022, , .		0
1569	An 11 V-tolerant, high-density neurostimulator using time-domain calibration in 65 nm CMOS. , 2022, , .		1
1570	Pre-Filtering of Stimuli for Improved Energy Efficiency in Electrical Neural Stimulation. , 2022, , .		1
1571	Synergistic Effect of Oxoammonium Salt and Its Counterions for Fabricating Organic Electrochemical Transistors with Low Power Consumption. ACS Applied Materials & Interfaces, 2022, 14, 51165-51174.	8.0	3
1572	3D conductive material strategies for modulating and monitoring cells. Progress in Materials Science, 2023, 133, 101041.	32.8	3
1573	3D printable conductive composite inks for the fabrication of biocompatible electrodes in tissue engineering application. International Journal of Bioprinting, 2022, 9, 643.	3.4	1
1574	Interphase Gaps in Symmetric Biphasic Pulses Reduce the Therapeutic Window in Ventral Intermediate Nucleus of the Thalamus—Deep Brain Stimulation for Essential Tremor. Neuromodulation, 2023, 26, 1699-1704.	0.8	3
1575	The impact of electrical stimulation protocols on neuronal cell survival and proliferation using cell-laden GelMA/graphene oxide hydrogels. Journal of Materials Chemistry B, 2023, 11, 581-593.	5.8	5
1576	A microfluidic perspective on conventional in vitro transcranial direct current stimulation methods. Journal of Neuroscience Methods, 2023, 385, 109761.	2.5	2
1577	BIMMS: A versatile and portable system for biological tissue and electrode-tissue interface electrical characterization. HardwareX, 2023, 13, e00387.	2.2	0
1578	Trends in Volumetric-Energy Efficiency of Implantable Neurostimulators: A Review From a Circuits and Systems Perspective. IEEE Transactions on Biomedical Circuits and Systems, 2023, 17, 2-20.	4.0	1
1579	Bioimpedance Spectroscopy Helps Monitor the Impact of Electrical Stimulation on Muscle Cells. IEEE Access, 2022, 10, 131430-131441.	4.2	1
1580	Adaptively Clock-Boosted Auto-Ranging Neural-Interface for Emerging Neuromodulation Applications. IEEE Transactions on Biomedical Circuits and Systems, 2022, 16, 1138-1152.	4.0	3
1581	Microfabrication of Implantable, Flexible Neural Probes Towards Bidirectional Interfacing in the Deep Brain. , 2022, , .		0
1582	A servo-loop-free charge sharing technique to mitigate electrode offsets in biomedical multiplexed interfaces. , 2022, , .		1

#	ARTICLE	IF	CITATIONS
1583	Perspective Chapter: Tissue-Electronics Interfaces. , 0, , .		5
1584	Photoactive Nanomaterials for Wireless Neural Biomimetics, Stimulation, and Regeneration. ACS Nano, 2022, 16, 19892-19912.	14.6	8
1585	In Vivo Penetrating Microelectrodes for Brain Electrophysiology. Sensors, 2022, 22, 9085.	3.8	3
1587	Robust enhancement of motor sequence learning with 4ÂmA transcranial electric stimulation. Brain Stimulation, 2023, 16, 56-67.	1.6	9
1589	The electrodeâ€”principles of the neural interface and materials. , 2022, , 131-174.		1
1590	Methods of poly(3,4)-ethylenedioxi thiophene (PEDOT) electrodeposition on metal electrodes for neural stimulation and recording. Journal of Neural Engineering, 2023, 20, 011002.	3.5	5
1591	Paced breathing and respiratory movement responses evoked by bidirectional constant current stimulation in anesthetized rabbits. Frontiers in Bioengineering and Biotechnology, 0, 10, .	4.1	0
1592	Benchtop and bedside validation of a low-cost programmable cortical stimulator in a testbed for bi-directional brain-computer-interface research. Frontiers in Neuroscience, 0, 16, .	2.8	4
1593	State of the art: non-invasive electrical stimulation for the treatment of chronic tinnitus. Therapeutic Advances in Chronic Disease, 2023, 14, 204062232211480.	2.5	3
1594	Adding a single pulse into high-frequency pulse stimulations can substantially alter the following episode of neuronal firing in rat hippocampus. Journal of Neural Engineering, 2023, 20, 016004.	3.5	1
1595	Electrically responsive release of proteins from conducting polymer hydrogels. Acta Biomaterialia, 2023, 158, 87-100.	8.3	11
1596	Alternating electric field stimulation: Phenotype analysis and osteoclast activity of differentiated RAW 264.7 macrophages on hydroxyapatite-coated Ti6Al4V surfaces and their crosstalk with MC3T3-E1 pre-osteoblasts. , 2023, 146, 213285.		4
1597	A 4.2â€”13.2 V, on-chip, regulated, DCâ€”DC converter in a standard 1.8V/3.3V CMOS process. AEU - International Journal of Electronics and Communications, 2023, 161, 154527.	2.9	1
1598	Potential Therapeutic Strategies for Skeletal Muscle Atrophy. Antioxidants, 2023, 12, 44.	5.1	12
1601	High amplitude pulses on the same charge condition efficiently elicit bipolar cell-mediated retinal ganglion cell responses in the degenerate retina. Biomedical Engineering Letters, 2023, 13, 129-140.	4.1	2
1602	Ultrasonic Wireless Neural Recording and Stimulation Interfaces. , 2023, , 623-650.		0
1603	State-of-the-Art Technology on MEAs for Interfacing Live Neurons. , 2023, , 339-379.		0
1604	Implantable Direct Current Neural Modulation. , 2023, , 787-823.		0

#	ARTICLE	IF	CITATIONS
1605	Energy-Efficient Electrical Stimulation Systems. , 2023, , 825-850.		0
1606	Artificial Sensory Feedback to the Brain: Somatosensory Feedback for Neural Devices and BCI. , 2023, , 1261-1283.		0
1607	Optimized Electrical Stimulation of C-Nociceptors in Humans Based on the Chronaxie of Porcine C-Fibers. Journal of Pain, 2023, 24, 957-969.	1.4	2
1608	Somatosensory Neuromodulation with a Focus Towards Clinical Systems. , 2023, , 3297-3351.		0
1609	Electrical Block of Peripheral Nerves. , 2023, , 2391-2424.		0
1610	Optimized Conditions for the Long-Term Maintenance of Precision-Cut Murine Myocardium in Biomimetic Tissue Culture. Bioengineering, 2023, 10, 171.	3.5	0
1611	Noninvasive Electrical Brain Stimulation of the Central Nervous System. , 2023, , 2101-2133.		0
1612	Modeling of the Peripheral Nerve to Investigate Advanced Neural Stimulation (Sensory Neural) Tj ETQq1 1 0.784314 rgBT /Overlock 107		0
1613	Decoupling of interacting neuronal populations by time-shifted stimulation through spike-timing-dependent plasticity. PLoS Computational Biology, 2023, 19, e1010853.	3.2	9
1614	Active charge balancer for CMOS integration of an array of neural stimulators. Nonlinear Theory and Its Applications IEICE, 2023, 14, 319-333.	0.6	0
1615	Hollow ring-like flexible electrode architecture enabling subcellular multi-directional neural interfacing. Biosensors and Bioelectronics, 2023, 227, 115182.	10.1	0
1616	Experimental and numerical methods to ensure comprehensible and replicable alternating current electrical stimulation experiments. Bioelectrochemistry, 2023, 151, 108395.	4.6	4
1617	Programmingâ€”SCS. , 2022, , 385-402.		0
1618	Electronics. , 2022, , 197-230.		0
1619	A novel ex vivo assay to define charge-balanced electrical stimulation parameters for neural precursor cell activation in vivo. Brain Research, 2023, 1804, 148263.	2.2	2
1620	Semiconducting electrodes for neural interfacing: a review. Chemical Society Reviews, 2023, 52, 1491-1518.	38.1	5
1621	Cochlear implant systems: Requirements for safety, functional verification, labeling and reliability reporting. , 2016, , .		1
1622	The MyoPulser field stimulator, a do it yourself programmable electronic pacemaker for contracting cells and tissues. Scientific Reports, 2023, 13, .	3.3	1

#	ARTICLE	IF	CITATIONS
1623	The future of brain-machine interfaces is optical. Nature Electronics, 2023, 6, 96-98.	26.0	7
1624	Hybrid graphene electrode for the diagnosis and treatment of epilepsy in free-moving animal models. NPG Asia Materials, 2023, 15, .	7.9	6
1625	Multielectrode Cortical Stimulation Selectively Induces Unidirectional Wave Propagation of Excitatory Neuronal Activity in Biophysical Neural Model. Journal of Neuroscience, 2023, 43, 2482-2496.	3.6	0
1626	A Current Monitoring and Over-Current Detection Circuit for Safe Electrical Stimulation. IEEE Transactions on Circuits and Systems II: Express Briefs, 2023, , 1-1.	3.0	0
1627	Quasi-static pipeline in electroconvulsive therapy computational modeling. Brain Stimulation, 2023, 16, 607-618.	1.6	4
1628	LiDAR-Based Hand Contralateral Controlled Functional Electrical Stimulation System. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2023, 31, 1776-1785.	4.9	1
1629	Electrochemistry in a Two- or Three-Electrode Configuration to Understand Monopolar or Bipolar Configurations of Platinum Bionic Implants. Micromachines, 2023, 14, 722.	2.9	5
1630	Immediate effects and duration of a short and single application of transcutaneous auricular vagus nerve stimulation on P300 event related potential. Frontiers in Neuroscience, 0, 17, .	2.8	1
1631	Electrophysiological Techniques for Studying Tactile Perception in Rats. Neuromethods, 2023, , 333-372.	0.3	0
1632	Strategies on Deep Brain Stimulation Devices for Effective Behavioral Studies in Rodents. , 2022, , .		0
1633	Transparent and Stretchable Au-Ag Nanowire Recording Microelectrode Arrays. Advanced Materials Technologies, 2023, 8, .	5.8	4
1636	Grade-control outdoor turning flight of robo-pigeon with quantitative stimulus parameters. Frontiers in Neurorobotics, 0, 17, .	2.8	1
1637	Electrical stimulation for therapeutic approach. , 2023, 1, .		10
1638	Translational opportunities and challenges of invasive electrodes for neural interfaces. Nature Biomedical Engineering, 2023, 7, 424-442.	22.5	17
1639	Neurostimulation device technology. , 2023, , 31-49.		0
1640	Biophysical Principles and Computational Modeling of Deep Brain Stimulation. Neuromodulation, 2023, , .	0.8	1
1641	Freeform Stimulator (FS) Implant Design for Non-Pulsatile Arbitrary Waveform Neuromodulation. , 2023, , .		0
1643	A Dual-Mode Neural Stimulator with Two-Step Charge Balancing Scheme for Fast Residual Voltage Compensation. , 2022, , .		0

#	ARTICLE	IF	CITATIONS
1644	Electrical stimulation methods and protocols for the treatment of traumatic brain injury: a critical review of preclinical research. Journal of NeuroEngineering and Rehabilitation, 2023, 20, .	4.6	3
1645	A review of neurophysiological effects and efficiency of waveform parameters in deep brain stimulation. Clinical Neurophysiology, 2023, 152, 93-111.	1.5	3
1646	Emerging optoelectronic technologies for next-generation leadless bioelectronic modulation. Cell Reports Physical Science, 2023, 4, 101414.	5.6	1
1648	Waveform parameters: Electrical field interaction on neuronal milieu. , 2024, , 51-58.		0
1649	Challenges and Opportunities of Implantable Neural Interfaces: From Material, Electrochemical and Biological Perspectives. Advanced Functional Materials, 2023, 33, .	14.9	9
1650	Simultaneous Sensory Feedback Strategy for Force and Position of Gripper Based on TENS. IEEE Robotics and Automation Letters, 2023, 8, 5291-5298.	5.1	0
1651	Robust Removal of Slow Artifactual Dynamics Induced by Deep Brain Stimulation in Local Field Potential Recordings Using SVD-Based Adaptive Filtering. Bioengineering, 2023, 10, 719.	3.5	0
1653	Characterization of Spinal Cord Stimulation Electrode for Chronic Implant in Animal Models. , 0, , .		0
1654	Dense, 11 V-Tolerant, Balanced Stimulator IC with Digital Time-Domain Calibration for $\pm 100\mu\text{nA}$ Error. IEEE Transactions on Biomedical Circuits and Systems, 2023, 17, 1166-1176.	4.0	1
1655	Injectable Ventral Spinal Stimulator Evokes Programmable and Biomimetic Hindlimb Motion. Nano Letters, 0, , .	9.1	0
1656	Multimodal Wireless-Powered Flexible System for Closed-Loop Neuromodulation. IEEE Sensors Journal, 2023, 23, 17366-17379.	4.7	1
1657	Combining PEDOT:PSS Polymer Coating with Metallic 3D Nanowires Electrodes to Achieve High Electrochemical Performances for Neuronal Interfacing Applications. Advanced Materials, 2023, 35, .	21.0	3
1658	Potential electrochemical reactions provoked by prolonged electrical stimulation and neuromodulation: in vitro porcine model. Regional Anesthesia and Pain Medicine, 0, , rapm-2022-104234.	2.3	0
1659	Self-Calibrating Circuit for Implantable Current Stimulators. , 2023, , .		0
1660	Neuronal Spiking Responses to Direct Electrical Microstimulation in the Human Cortex. Journal of Neuroscience, 2023, 43, 4448-4460.	3.6	2
1661	Graphene-based cardiac sensors and actuators. Frontiers in Bioengineering and Biotechnology, 0, 11, .	4.1	1
1662	Physical mechanisms of emerging neuromodulation modalities. Journal of Neural Engineering, 2023, 20, 031001.	3.5	2
1663	Advanced electrochemical potential monitoring for improved understanding of electrical neurostimulation protocols. Journal of Neural Engineering, 2023, 20, 036036.	3.5	1

#	ARTICLE	IF	CITATIONS
1664	A feasibility study on AI-controlled closed-loop electrical stimulation implants. Scientific Reports, 2023, 13, .	3.3	0
1666	Burst Stimulation for Enhanced Locomotion Control of Terrestrial Cyborg Insects. , 2023, , .		1
1667	Toward Human-in-the-Loop Shared Control for Upper-Limb Prostheses: A Systematic Analysis of State-of-the-Art Technologies. IEEE Transactions on Medical Robotics and Bionics, 2023, 5, 563-579.	3.2	3
1668	How far does electrical stimulation activate white matter tracts? A computational modeling study. Clinical Neurophysiology, 2023, 153, 68-78.	1.5	0
1669	State-of-the-Art Electronic Materials for Thin Films in Bioelectronics. Advanced Electronic Materials, 2023, 9, .	5.1	5
1670	Active Pulse-Clamp Stimulation for Rapid Recovery, Charge-Balanced Neural Stimulation. , 2023, , .		1
1671	Magnetic manipulation of Fe ₃ O ₄ @BaTiO ₃ nanochains to regulate extracellular topographical and electrical cues. Acta Biomaterialia, 2023, 168, 470-483.	8.3	2
1672	Electrochemical Properties of Sputtered Ruthenium Oxide Neural Stimulation and Recording Electrodes. Electrochem, 2023, 4, 350-364.	3.3	0
1673	Evoking natural thermal perceptions using a thin-film thermoelectric device with high cooling power density and speed. Nature Biomedical Engineering, 0, , .	22.5	2
1674	Investigating the electrode-electrolyte interface modelling in cochlear implants. Biomedical Physics and Engineering Express, 0, , .	1.2	0
1675	Der menschliche Körper: Eine besondere Umgebung. , 2023, , 105-220.		0
1676	Functional Enhancement and Characterization of an Electrophysiological Mapping Electrode Probe with Carbonic, Directional Macrocontacts. Sensors, 2023, 23, 7497.	3.8	0
1677	Biohybrid Soft Robots Powered by Myocyte: Current Progress and Future Perspectives. Micromachines, 2023, 14, 1643.	2.9	1
1678	Edge-Functionalized Graphene/Polydimethylsiloxane Composite Films for Flexible Neural Cuff Electrodes. ACS Applied Materials & Interfaces, 2023, 15, 38833-38845.	8.0	0
1679	Cryogel-based neurostimulation electrodes to activate endogenous neural precursor cells. Acta Biomaterialia, 2023, 171, 392-405.	8.3	0
1680	Making Sense of Electrical Stimulation: A Meta-analysis for Wound Healing. Annals of Biomedical Engineering, 0, , .	2.5	2
1681	Electroactive biomaterials synergizing with electrostimulation for cardiac tissue regeneration and function-monitoring. Materials Today, 2023, 70, 237-272.	14.2	2
1682	Transcutaneous Vagal Nerve Stimulation in Trauma Spectrum Psychiatric Disorders. Neuromethods, 2024, , 157-184.	0.3	0

#	ARTICLE	IF	CITATIONS
1683	Generation of direct current electrical fields as regenerative therapy for spinal cord injury: A review. APL Bioengineering, 2023, 7, .	6.2	3
1684	Asymmetric charge balanced waveforms direct retinal ganglion cell axon growth. Scientific Reports, 2023, 13, .	3.3	1
1688	Optimization of ictal aborting stimulation using the dynamotype taxonomy. Journal of Computational Neuroscience, 2023, 51, 445-462.	1.0	1
1689	The physiological response during optogenetic-based cardiac pacing in awake freely moving mice. Frontiers in Physiology, 0, 14, .	2.8	0
1690	Effects of Intraoperative Cochlear Implant Electrode Conditioning on Impedances and Electrically Evoked Compound Action Potentials. IEEE Transactions on Biomedical Engineering, 2023, , 1-10.	4.2	0
1691	Hybrid neuroelectronics: towards a solution-centric way of thinking about complex problems in neurostimulation tools. Frontiers in Electronics, 0, 4, .	3.2	0
1692	Interactions between cathodic- and anodic-pulses during high-frequency stimulations with the monophasic-pulses alternating in polarity at axons”experiment and simulation studies. Journal of Neural Engineering, 2023, 20, 056021.	3.5	0
1693	A 4-Channel Neural Stimulation IC Design With Charge Balancing and Multiple Current Output Modes. IEEE Transactions on Biomedical Circuits and Systems, 2023, 17, 1037-1049.	4.0	0
1694	Fabrication of a photo-crosslinkable fluoropolymer-passivated flexible neural probe and acute recording and stimulation performances in vivo. , 2023, 154, 213629.		0
1695	A 15.7-V-Compliant 86% Peak Efficiency Current-Mode Stimulator With Dynamic Voltage Supply for Implantable Medical Devices. , 2023, , .		0
1696	Postural Changes in Spinal Cord Stimulation Thresholds: Current and Voltage Sources. Neuromodulation, 2023, , .	0.8	0
1697	The Autonomous Pipeline Navigation of a Cockroach Bio-Robot with Enhanced Walking Stimuli. Cyborg and Bionic Systems, 2023, 4, .	7.9	1
1698	Effect of pH and gel electrolyte on safe charge injection and electrode degradation of platinum electrodes. , 2023, , .		0
1699	Key challenges in exploring the rat as a preclinical neurostimulation model for aortic baroreflex modulation in hypertension. Hypertension Research, 2024, 47, 399-415.	2.7	1
1700	A 14-Bit, 12 V-to-100 V Voltage Compliance Electrical Stimulator with Redundant Digital Calibration. Micromachines, 2023, 14, 2001.	2.9	0
1701	Brain stimulation-on-a-chip: a neuromodulation platform for brain slices. Lab on A Chip, 2023, 23, 4967-4985.	6.0	0
1702	Multiple consecutive-biphasic pulse stimulation improves spatially localized firing of retinal ganglion cells in the degenerate retina. Korean Journal of Physiology and Pharmacology, 2023, 27, 541-553.	1.2	0
1703	Driving electrochemical reactions at the microscale using CMOS microelectrode arrays. Lab on A Chip, 2023, 23, 5047-5058.	6.0	1

#	ARTICLE	IF	CITATIONS
1704	Finite element analysis of electric field distribution during direct current stimulation of the spinal cord: Implications for device design. APL Bioengineering, 2023, 7, .	6.2	2
1705	Gaâ€Based Liquid Metals: Versatile and Biocompatible Solutions for Nextâ€Generation Bioelectronics. Advanced Functional Materials, 0, , .	14.9	1
1706	A Flexible PDMS-Based Optical Biosensor for Stretch Monitoring in Cardiac Tissue Samples. Sensors, 2023, 23, 9454.	3.8	0
1707	Electroconductivity, a regenerative engineering approach to reverse rotator cuff muscle degeneration. Regenerative Biomaterials, 2023, 10, .	5.6	0
1708	A Definition of Neuromodulation and Classification of Implantable Electrical Modulation for Chronic Pain. Neuromodulation, 2023, , .	0.8	0
1709	Discrimination between the effects of pulsed electrical stimulation and electrochemically conditioned medium on human osteoblasts. Journal of Biological Engineering, 2023, 17, .	4.7	1
1711	PEDOT:PSS-coated platinum electrodes for neural stimulation. APL Bioengineering, 2023, 7, .	6.2	0
1712	Development of a multifunctional bioreactor to evaluate the promotion effects of cyclic stretching and electrical stimulation on muscle differentiation. Bioengineering and Translational Medicine, 2024, 9, .	7.1	0
1713	Wireless Galvanic Impulse Communication for High-Throughput, Low-Power, Miniaturized Neuromodulation Implants. , 2023, , .		0
1714	Impaired Discrimination of Electrocutaneous Stimulation in the Paretic Hand of Stroke Survivors. , 2023, , .		0
1715	Development of Low-Power and Environmentally Friendly Temperature Sensor Based on Gelatin-Graphene Nanocomposite[*]. , 2023, , .		0
1716	Thalamo-cortical evoked potentials during stimulation of the dentato-rubro-thalamic tract demonstrate synaptic filtering. Neurotherapeutics, 2024, 21, e00295.	4.4	0
1717	Bioelectronic Neural Interfaces: Improving Neuromodulation Through Organic Conductive Coatings. Advanced Science, 0, , .	11.2	0
1718	Charged for destruction: Advancing cancer treatment with triboelectric nanogenerators â€“ State of the art and prospects. Nano Energy, 2024, 120, 109157.	16.0	1
1719	Measures of Dosage for Spinal-Cord Electrical Stimulation: Review and Proposal. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2023, 31, 4653-4660.	4.9	1
1720	Integrated Sensors for Soft Medical Robotics. Small, 0, , .	10.0	0
1721	Electrical pulse stimulation parameters modulate N2a neuronal differentiation. Cell Death Discovery, 2024, 10, .	4.7	0
1724	An electrode-impedance-aware neurostimulator IC that achieves low-power consumption and fast charge balance. Journal of Neuroscience Methods, 2024, 404, 110058.	2.5	0

#	ARTICLE	IF	CITATIONS
1725	Control of Neuronal Survival and Development Using Conductive Diamond. ACS Applied Materials & Interfaces, 2024, 16, 4361-4374.	8.0	0
1726	Stand-Alone Broad Frequency Range Charge-Balancing System for Neural Stimulators. , 2023, , .		0
1727	Multichannel current-mode stimulator with channel-specific regulated power supply. , 2023, , .		0
1728	In vitro biocompatibility evaluation of functional electrically stimulating microelectrodes on primary glia. Frontiers in Bioengineering and Biotechnology, 0, 12, .	4.1	0
1729	Barrier Certificates for a Computational Model of Epileptic Seizures. , 2023, , .		0
1730	Regeneration and Long-Term Stability of a Low-Power Eco-Friendly Temperature Sensor Based on a Hydrogel Nanocomposite. Nanomaterials, 2024, 14, 283.	4.1	0
1731	Machine learning enables non-Gaussian investigation of changes to peripheral nerves related to electrical stimulation. Scientific Reports, 2024, 14, .	3.3	0
1732	Nonlinear effects at the electrode-tissue interface of deep brain stimulation electrodes. Journal of Neural Engineering, 2024, 21, 016024.	3.5	0
1733	Wireless control of nerve growth using bipolar electrodes: a new paradigm in electrostimulation. Biomaterials Science, 2024, 12, 2180-2202.	5.4	0
1734	Colonic Electrical Stimulation for Chronic Constipation: A Perspective Review. Biomedicines, 2024, 12, 481.	3.2	0
1735	Towards biologically plausible phosphene simulation for the differentiable optimization of visual cortical prostheses. ELife, 0, 13, .	6.0	0
1736	Development and Characterization of Electrodes Coated with Plasma-Synthesized Polypyrrole Doped with Iodine, Implanted in the Rat Brain Subthalamic Nucleus. Polymers, 2024, 16, 823.	4.5	0
1737	Flexible and Stretchable Electrodes for <i>In Vivo</i> Electrophysiological and Electrochemical Monitoring. Chinese Journal of Chemistry, 0, , .	4.9	0
1738	Bioelectronic Direct Current Stimulation at the Transition Between Reversible and Irreversible Charge Transfer. Advanced Science, 0, , .	11.2	0