

Restoring Natural Sensory Feedback in Real-Time Bidir

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Acute human brain responses to intracortical microelectrode arrays: challenges and future prospects. <i>Frontiers in Neuroengineering</i> , 2014, 7, 24.	4.8	124
2	In vivo monitoring of glial scar proliferation on chronically implanted neural electrodes by fiber optical coherence tomography. <i>Frontiers in Neuroengineering</i> , 2014, 7, 34.	4.8	42
3	Augmentation-related brain plasticity. <i>Frontiers in Systems Neuroscience</i> , 2014, 8, 109.	1.2	65
4	“Messing with the mind” evolutionary challenges to human brain augmentation. <i>Frontiers in Systems Neuroscience</i> , 2014, 8, 152.	1.2	7
5	Real-Time Single Camera Hand Gesture Recognition System for Remote Deaf-Blind Communication. <i>Lecture Notes in Computer Science</i> , 2014, , 35-52.	1.0	8
6	Using multiple high-count electrode arrays in human median and ulnar nerves to restore sensorimotor function after previous transradial amputation of the hand. , 2014, 2014, 1977-80.		64
7	A Bio-Hybrid Tactile Sensor Incorporating Living Artificial Skin and an Impedance Sensing Array. <i>Sensors</i> , 2014, 14, 23781-23802.	2.1	7
8	A review of source separation and source localization approaches in peripheral nerves. , 2014, , .		6
9	Identify key grasping-related properties based on cutaneous electrotactile stimulation. , 2014, , .		5
10	Investigations on stability of implanted nervous thin-film electrodes. , 2014, , .		3
11	Guest Editorial. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 711-715.	2.7	15
12	Stretchable silicon nanoribbon electronics for skin prosthesis. <i>Nature Communications</i> , 2014, 5, 5747.	5.8	1,145
13	Restoring Sensory Feedback Enables Real-Time Control of Prosthetic Hand [From the Field]. <i>IEEE Robotics and Automation Magazine</i> , 2014, 21, 88-89.	2.2	2
14	An osseointegrated human-machine gateway for long-term sensory feedback and motor control of artificial limbs. <i>Science Translational Medicine</i> , 2014, 6, 257re6.	5.8	378
15	Bionic Limbs: Clinical Reality and Academic Promises. <i>Science Translational Medicine</i> , 2014, 6, 257ps12.	5.8	117
16	Long Range Prospects of Education - from Now until Singularity. <i>Interdisciplinary Description of Complex Systems</i> , 2014, 12, 161-175.	0.3	3
17	Neural prosthesis for motor function restoration in upper limb extremity. , 2014, , .		9
19	Advances in functional electrical stimulation (FES). <i>Journal of Electromyography and Kinesiology</i> , 2014, 24, 795-802.	0.7	124

#	ARTICLE	IF	CITATIONS
20	A neural interface provides long-term stable natural touch perception. <i>Science Translational Medicine</i> , 2014, 6, 257ra138.	5.8	613
22	Technology for Chronic Pain. <i>Current Biology</i> , 2014, 24, R930-R935.	1.8	13
23	Electromyography data for non-invasive naturally-controlled robotic hand prostheses. <i>Scientific Data</i> , 2014, 1, 140053.	2.4	482
24	Tactile Feedback Achieved in Bionic Limb. <i>Neurology Today: an Official Publication of the American Academy of Neurology</i> , 2014, 14, 1.	0.0	0
25	A legal perspective on body implants for therapy and enhancement. <i>International Review of Law, Computers and Technology</i> , 2015, 29, 226-244.	0.7	7
26	Decoding upper limb residual muscle activity in severe chronic stroke. <i>Annals of Clinical and Translational Neurology</i> , 2015, 2, 1-11.	1.7	38
27	PARLOMA – A Novel Human-Robot Interaction System for Deaf-Blind Remote Communication. <i>International Journal of Advanced Robotic Systems</i> , 2015, 12, 57.	1.3	20
28	Chronic multichannel neural recordings from soft regenerative microchannel electrodes during gait. <i>Scientific Reports</i> , 2015, 5, 14363.	1.6	59
29	Decoding of naturalistic textures from spike patterns of neuromorphic artificial mechanoreceptors. <i>BMC Neuroscience</i> , 2015, 16, .	0.8	2
30	Providing a Sense of Touch to Prosthetic Hands. <i>Plastic and Reconstructive Surgery</i> , 2015, 135, 1652-1663.	0.7	77
31	Neural interfaces for somatosensory feedback. <i>Current Opinion in Neurology</i> , 2015, 28, 574-581.	1.8	90
32	Deafferented controllers: a fundamental failure mechanism in cortical neuroprosthetic systems. <i>Frontiers in Behavioral Neuroscience</i> , 2015, 9, 186.	1.0	4
33	Decoding of human hand actions to handle missing limbs in neuroprosthetics. <i>Frontiers in Computational Neuroscience</i> , 2015, 9, 27.	1.2	31
34	A Robot Hand Testbed Designed for Enhancing Embodiment and Functional Neurorehabilitation of Body Schema in Subjects with Upper Limb Impairment or Loss. <i>Frontiers in Human Neuroscience</i> , 2015, 9, 26.	1.0	26
35	A reconfigurable visual-programming library for real-time closed-loop cellular electrophysiology. <i>Frontiers in Neuroinformatics</i> , 2015, 9, 17.	1.3	9
36	Control Capabilities of Myoelectric Robotic Prostheses by Hand Amputees: A Scientific Research and Market Overview. <i>Frontiers in Systems Neuroscience</i> , 2015, 9, 162.	1.2	135
37	Human-Machine Interface for the Control of Multi-Function Systems Based on Electrocutaneous Menu: Application to Multi-Grasp Prosthetic Hands. <i>PLoS ONE</i> , 2015, 10, e0127528.	1.1	19
38	Surface electrical stimulation to evoke referred sensation. <i>Journal of Rehabilitation Research and Development</i> , 2015, 52, 397-406.	1.6	26

#	ARTICLE	IF	CITATIONS
39	Neuroprosthetics. , 2015, , 714-721.		3
40	Is it Finger or Wrist Dexterity That is Missing in Current Hand Prostheses?. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 600-609.	2.7	152
41	An assistive decision-and-control architecture for force-sensitive handâ€œarm systems driven by humanâ€œmachine interfaces. International Journal of Robotics Research, 2015, 34, 763-780.	5.8	43
42	Brain-Machine Interfaces: The Perception-Action Closed Loop: A Two-Learner System. IEEE Systems, Man, and Cybernetics Magazine, 2015, 1, 6-8.	1.2	15
43	Classification of phases of hand grasp task by the extraction of miniature compound nerve action potentials (mCNAPs). , 2015, , .		1
44	A new generation of double-sided intramuscular electrodes for multi-channel recording and stimulation. , 2015, 2015, 7135-8.		14
45	Similar trial-by-trial adaptation behavior across transhumeral amputees and able-bodied subjects. , 2015, , .		5
46	Upper limb prosthetic control using toe gesture sensors. , 2015, , .		12
47	Effects of electrode size and spacing on sensory modalities in the phantom thumb perception area for the forearm amputees. , 2015, 2015, 3383-6.		6
48	Automatic hand phantom map detection methods. , 2015, , .		1
49	Illusory Sense of Human Touch From a Warm and Soft Artificial Hand. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 517-527.	2.7	36
50	The Power of CAD/CAM Laser Bioprinting at the Single-Cell Level: Evolution of Printing. , 2015, , 79-103.		3
51	A three-dimensional self-opening intraneural peripheral interface (SELINe). Journal of Neural Engineering, 2015, 12, 016016.	1.8	63
52	Polymeric C-shaped cuff electrode for recording of peripheral nerve signal. Sensors and Actuators B: Chemical, 2015, 210, 640-648.	4.0	43
53	Sensory Feedback in Prosthetics: A Standardized Test Bench for Closed-Loop Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 267-276.	2.7	33
54	An HV-CMOS Integrated Circuit for Neural Stimulation in Prosthetic Applications. IEEE Transactions on Circuits and Systems II: Express Briefs, 2015, 62, 184-188.	2.2	27
55	Electrical interfaces for recording, stimulation, and sensing. , 2015, , 13-38.		2
56	Forearm amputees' views of prosthesis use and sensory feedback. Journal of Hand Therapy, 2015, 28, 269-278.	0.7	95

#	ARTICLE	IF	CITATIONS
57	EMG Biofeedback for online predictive control of grasping force in a myoelectric prosthesis. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 55.	2.4	81
58	Nanostructured platinum grass enables superior impedance reduction for neural microelectrodes. Biomaterials, 2015, 67, 346-353.	5.7	130
59	Biomimetic tactile sensing. , 2015, , 69-91.		6
60	Robotic Prosthetics : Moving Beyond Technical Performance. IEEE Technology and Society Magazine, 2015, 34, 71-79.	0.6	4
61	The role of tactile afference in shaping motor behaviour and implications for prosthetic innovation. Neuropsychologia, 2015, 79, 192-205.	0.7	70
62	Self-Closed Parylene Cuff Electrode for Peripheral Nerve Recording. Journal of Microelectromechanical Systems, 2015, 24, 319-332.	1.7	33
63	Peripheral Nerve Interfaces. , 2015, , 1033-1054.		3
64	A bio-hybrid mechanotransduction system based on ciliate cells. Microelectronic Engineering, 2015, 144, 51-56.	1.1	5
65	Control strategies for active lower extremity prosthetics and orthotics: a review. Journal of NeuroEngineering and Rehabilitation, 2015, 12, 1.	2.4	773
66	Tactile Feedback of Object Slip Facilitates Virtual Object Manipulation. IEEE Transactions on Haptics, 2015, 8, 454-466.	1.8	44
67	Neuroprostheses for somatosensory function. , 2015, , 127-151.		2
68	Principles of command and control for neuroprostheses. , 2015, , 45-58.		3
69	Elastomeric Electronic Skin for Prosthetic Tactile Sensation. Advanced Functional Materials, 2015, 25, 2287-2295.	7.8	321
70	Recent advances in bioelectric prostheses. Neurology: Clinical Practice, 2015, 5, 164-170.	0.8	21
71	Sensors for Robotic Hands: A Survey of State of the Art. IEEE Access, 2015, 3, 1765-1782.	2.6	81
72	Toward the Development of a Neuro-Controlled Bidirectional Hand Prosthesis. Lecture Notes in Computer Science, 2015, , 105-110.	1.0	0
73	Selective stimulation of peripheral motor nerve using a flexible split-ring electrode. , 2015, , .		1
74	Decoding force from multiunit recordings from the median nerve. , 2015, , .		2

#	ARTICLE	IF	CITATIONS
75	A skin-inspired organic digital mechanoreceptor. <i>Science</i> , 2015, 350, 313-316.	6.0	708
76	Restoring the sense of touch. <i>Science</i> , 2015, 350, 274-275.	6.0	14
77	Characterization of evoked tactile sensation in forearm amputees with transcutaneous electrical nerve stimulation. <i>Journal of Neural Engineering</i> , 2015, 12, 066002.	1.8	88
78	Moving Along: In biomechanics, rehabilitation engineering, and movement analysis, Italian researchers are making great strides.. <i>IEEE Pulse</i> , 2015, 6, 50-57.	0.1	0
79	Rapid evaluation of the durability of cortical neural implants using accelerated aging with reactive oxygen species. <i>Journal of Neural Engineering</i> , 2015, 12, 026003.	1.8	150
80	Stability and selectivity of a chronic, multi-contact cuff electrode for sensory stimulation in human amputees. <i>Journal of Neural Engineering</i> , 2015, 12, 026002.	1.8	125
81	Biomimetic approaches to bionic touch through a peripheral nerve interface. <i>Neuropsychologia</i> , 2015, 79, 344-353.	0.7	148
82	Review of Brain-Machine Interfaces Used in Neural Prosthetics with New Perspective on Somatosensory Feedback through Method of Signal Breakdown. <i>Scientifica</i> , 2016, 2016, 1-10.	0.6	40
83	Effect of clinical parameters on the control of myoelectric robotic prosthetic hands. <i>Journal of Rehabilitation Research and Development</i> , 2016, 53, 345-358.	1.6	49
84	Discriminability of Single and Multichannel Intracortical Microstimulation within Somatosensory Cortex. <i>Frontiers in Bioengineering and Biotechnology</i> , 2016, 4, 91.	2.0	3
85	Assessment of Myoelectric Controller Performance and Kinematic Behavior of a Novel Soft Synergy-Inspired Robotic Hand for Prosthetic Applications. <i>Frontiers in Neurobotics</i> , 2016, 10, 11.	1.6	20
86	Control of Prosthetic Hands via the Peripheral Nervous System. <i>Frontiers in Neuroscience</i> , 2016, 10, 116.	1.4	93
87	Literature Review on Needs of Upper Limb Prosthesis Users. <i>Frontiers in Neuroscience</i> , 2016, 10, 209.	1.4	467
88	Fascicular Topography of the Human Median Nerve for Neuroprosthetic Surgery. <i>Frontiers in Neuroscience</i> , 2016, 10, 286.	1.4	50
89	A Review of Control Strategies in Closed-Loop Neuroprosthetic Systems. <i>Frontiers in Neuroscience</i> , 2016, 10, 312.	1.4	44
90	Trends and Challenges in Neuroengineering: Toward "Intelligent" Neuroprostheses through Brain-Brain Inspired Systems Communication. <i>Frontiers in Neuroscience</i> , 2016, 10, 438.	1.4	62
91	Contact Pressure Level Indication Using Stepped Output Tactile Sensors. <i>Sensors</i> , 2016, 16, 511.	2.1	3
92	Prosthesis Control with an Implantable Multichannel Wireless Electromyography System for High-Level Amputees. <i>Plastic and Reconstructive Surgery</i> , 2016, 137, 153-162.	0.7	22

#	ARTICLE	IF	CITATIONS
93	Pursuing prosthetic electronic skin. <i>Nature Materials</i> , 2016, 15, 937-950.	13.3	1,821
94	Biomimetic rehabilitation engineering: the importance of somatosensory feedback for brain-machine interfaces. <i>Journal of Neural Engineering</i> , 2016, 13, 041001.	1.8	26
95	Mechanically Durable and Highly Stretchable Transistors Employing Carbon Nanotube Semiconductor and Electrodes. <i>Advanced Materials</i> , 2016, 28, 4441-4448.	11.1	234
96	A bidirectional peripheral neural interface for restoring sensorimotor function of non-human primates. , 2016, , .		0
97	Tactile to vibrotactile sensory feedback interface for prosthetic hand users. , 2016, , .		2
98	System to induce and measure embodiment of an artificial hand with programmable convergent visual and tactile stimuli. , 2016, 2016, 4727-4730.		4
99	A microfabricated strain gauge array on polymer substrate for tactile neuroprostheses in rats. <i>Journal of Micromechanics and Microengineering</i> , 2016, 26, 084006.	1.5	9
100	Integrated and flexible multichannel interface for electrotactile stimulation. <i>Journal of Neural Engineering</i> , 2016, 13, 046014.	1.8	82
101	Toward a Proprioceptive Neural Interface that Mimics Natural Cortical Activity. <i>Advances in Experimental Medicine and Biology</i> , 2016, 957, 367-388.	0.8	34
102	Optoelectronically innervated soft prosthetic hand via stretchable optical waveguides. <i>Science Robotics</i> , 2016, 1, .	9.9	619
103	Optimisation of the spatial discretisation of myelinated axon models. , 2016, , .		0
104	Robo-Psychophysics: Extracting Behaviorally Relevant Features from the Output of Sensors on a Prosthetic Finger. <i>IEEE Transactions on Haptics</i> , 2016, 9, 499-507.	1.8	10
105	Modelling of nanowire FETs based neural network for tactile pattern recognition in E-skin. , 2016, , .		3
106	Multisensory Smart Glove for Tactile Feedback in Prosthetic Hand. <i>Procedia Engineering</i> , 2016, 168, 1605-1608.	1.2	18
107	Mechanically Compliant Neural Interfaces. <i>Microsystems and Nanosystems</i> , 2016, , 257-273.	0.1	2
108	Restoring motor control and sensory feedback in people with upper extremity amputations using arrays of 96 microelectrodes implanted in the median and ulnar nerves. <i>Journal of Neural Engineering</i> , 2016, 13, 036001.	1.8	268
109	An integrated interface for peripheral neural system recording and stimulation: system design, electrical tests and in-vivo results. <i>Biomedical Microdevices</i> , 2016, 18, 35.	1.4	14
110	Staying in Touch: Toward the Restoration of Sensory Feedback in Hand Prostheses Using Peripheral Neural Stimulation. <i>IEEE Pulse</i> , 2016, 7, 16-19.	0.1	14

#	ARTICLE	IF	CITATIONS
111	Brain-machine interface facilitated neurorehabilitation via spinal stimulation after spinal cord injury: Recent progress and future perspectives. <i>Brain Research</i> , 2016, 1646, 25-33.	1.1	50
112	New Perspectives on Neuroengineering and Neurotechnologies: NSF-DFG Workshop Report. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 1354-1367.	2.5	23
113	Neural Data-Driven Musculoskeletal Modeling for Personalized Neurorehabilitation Technologies. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 879-893.	2.5	121
114	Brain-controlled devices: the perception-action closed loop. , 2016, , .		1
115	Frontiers of robotic endoscopic capsules: a review. <i>Journal of Micro-Bio Robotics</i> , 2016, 11, 1-18.	2.1	116
116	Electrotactile EMG feedback improves the control of prosthesis grasping force. <i>Journal of Neural Engineering</i> , 2016, 13, 056010.	1.8	80
117	Task-Specific Somatosensory Feedback via Cortical Stimulation in Humans. <i>IEEE Transactions on Haptics</i> , 2016, 9, 515-522.	1.8	58
118	Multichannel electrotactile feedback for simultaneous and proportional myoelectric control. <i>Journal of Neural Engineering</i> , 2016, 13, 056015.	1.8	39
119	Experimental analysis of the relationship between neural and muscular recordings during hand control. , 2016, , .		1
120	Microstimulation of the lumbar DRG recruits primary afferent neurons in localized regions of lower limb. <i>Journal of Neurophysiology</i> , 2016, 116, 51-60.	0.9	25
121	Robots with a sense of touch. <i>Nature Materials</i> , 2016, 15, 921-925.	13.3	214
122	Rehabilitation and Health Care Robotics. <i>Springer Handbooks</i> , 2016, , 1685-1728.	0.3	48
123	Upper extremity prosthesis user perspectives on unmet needs and innovative technology. , 2016, 2016, 287-290.		17
124	Intracortical microstimulation of human somatosensory cortex. <i>Science Translational Medicine</i> , 2016, 8, 361ra141.	5.8	547
125	Clinical applications of penetrating neural interfaces and Utah Electrode Array technologies. <i>Journal of Neural Engineering</i> , 2016, 13, 061003.	1.8	101
126	Emerging flexible and wearable physical sensing platforms for healthcare and biomedical applications. <i>Microsystems and Nanoengineering</i> , 2016, 2, 16043.	3.4	385
127	Induced sensorimotor brain plasticity controls pain in phantom limb patients. <i>Nature Communications</i> , 2016, 7, 13209.	5.8	69
128	The RIC Arm – A Small Anthropomorphic Transhumeral Prosthesis. <i>IEEE/ASME Transactions on Mechatronics</i> , 2016, 21, 2660-2671.	3.7	70

#	ARTICLE	IF	CITATIONS
129	The neural basis of perceived intensity in natural and artificial touch. <i>Science Translational Medicine</i> , 2016, 8, 362ra142.	5.8	205
130	Materials and technologies for soft implantable neuroprostheses. <i>Nature Reviews Materials</i> , 2016, 1, .	23.3	485
131	Elective amputation and bionic substitution restore functional hand use after critical soft tissue injuries. <i>Scientific Reports</i> , 2016, 6, 34960.	1.6	33
132	Key considerations in designing a somatosensory neuroprosthesis. <i>Journal of Physiology (Paris)</i> , 2016, 110, 402-408.	2.1	31
133	Insights and Perspectives on Sensory-Motor Integration and Rehabilitation. <i>Multisensory Research</i> , 2016, 29, 607-633.	0.6	9
134	On the development of intrinsically-actuated, multisensory dexterous robotic hands. <i>ROBOMECH Journal</i> , 2016, 3, .	0.9	21
135	Recording and decoding for neural prostheses. <i>Proceedings of the IEEE</i> , 2016, 104, 374-391.	16.4	42
136	Long-term decoding of movement force and direction with a wireless myoelectric implant. <i>Journal of Neural Engineering</i> , 2016, 13, 016002.	1.8	29
137	Implantable neurotechnologies: bidirectional neural interfaces’ applications and VLSI circuit implementations. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 1-17.	1.6	52
138	Implantable neurotechnologies: electrical stimulation and applications. <i>Medical and Biological Engineering and Computing</i> , 2016, 54, 63-76.	1.6	38
139	Les neuroprothèses. <i>Evolution Psychiatrique</i> , 2016, 81, 353-364.	0.1	1
140	Non-Invasive, Temporally Discrete Feedback of Object Contact and Release Improves Grasp Control of Closed-Loop Myoelectric Transradial Prostheses. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 1314-1322.	2.7	170
141	Soft implantable microelectrodes for future medicine: prosthetics, neural signal recording and neuromodulation. <i>Lab on A Chip</i> , 2016, 16, 959-976.	3.1	96
142	A Novel Method to Generate Amplitude-Frequency Modulated Vibrotactile Stimulation. <i>IEEE Transactions on Haptics</i> , 2016, 9, 3-12.	1.8	20
143	Reflections on the present and future of upper limb prostheses. <i>Expert Review of Medical Devices</i> , 2016, 13, 321-324.	1.4	51
145	Automated drowsiness detection through wavelet packet analysis of a single EEG channel. <i>Expert Systems With Applications</i> , 2016, 55, 559-565.	4.4	67
146	Sensory feedback by peripheral nerve stimulation improves task performance in individuals with upper limb loss using a myoelectric prosthesis. <i>Journal of Neural Engineering</i> , 2016, 13, 016001.	1.8	202
147	Interactions among biotic and abiotic factors affect the reliability of tungsten microneedles puncturing in vitro and in vivo peripheral nerves: A hybrid computational approach. <i>Materials Science and Engineering C</i> , 2016, 59, 1089-1099.	3.8	13

#	ARTICLE	IF	CITATIONS
148	A histological analysis of human median and ulnar nerves following implantation of Utah slanted electrode arrays. <i>Biomaterials</i> , 2016, 77, 235-242.	5.7	43
149	Effects of Different Tactile Feedback on Myoelectric Closed-Loop Control for Grasping Based on Electrotactile Stimulation. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 827-836.	2.7	43
150	Estimation of the Electrode-Fiber Bioelectrical Coupling From Extracellularly Recorded Single Fiber Action Potentials. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 951-960.	2.7	8
151	Regenerative Electrode Interfaces for Neural Prostheses. <i>Tissue Engineering - Part B: Reviews</i> , 2016, 22, 125-135.	2.5	47
152	Flexible Epineural Strip Electrode for Recording in Fine Nerves. <i>IEEE Transactions on Biomedical Engineering</i> , 2016, 63, 581-587.	2.5	27
153	Spatial and Functional Selectivity of Peripheral Nerve Signal Recording With the Transversal Intrafascicular Multichannel Electrode (TIME). <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2016, 24, 20-27.	2.7	53
154	Multiclassifier system with hybrid learning applied to the control of bioprosthetic hand. <i>Computers in Biology and Medicine</i> , 2016, 69, 286-297.	3.9	30
155	Neuromorphic Artificial Touch for Categorization of Naturalistic Textures. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2017, 28, 819-829.	7.2	79
156	The SSSA-MyHand: A Dexterous Lightweight Myoelectric Hand Prosthesis. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 459-468.	2.7	94
157	Multichannel Electrotactile Feedback With Spatial and Mixed Coding for Closed-Loop Control of Grasping Force in Hand Prostheses. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 183-195.	2.7	98
158	Long-term usability and bio-integration of polyimide-based intra-neural stimulating electrodes. <i>Biomaterials</i> , 2017, 122, 114-129.	5.7	132
159	EMG-based decoding of grasp gestures in reaching-to-grasping motions. <i>Robotics and Autonomous Systems</i> , 2017, 91, 59-70.	3.0	58
160	Non-Invasive Stimulation-Based Tactile Sensation for Upper-Extremity Prosthesis: A Review. <i>IEEE Sensors Journal</i> , 2017, 17, 2625-2635.	2.4	53
161	High-Performance Piezoresistive Electronic Skin with Bionic Hierarchical Microstructure and Microcracks. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14911-14919.	4.0	134
162	Analysis of temporal firing patterns of primary afferent C-fibers for different sensations in mice. <i>International Journal of Precision Engineering and Manufacturing</i> , 2017, 18, 739-745.	1.1	1
163	Tactile feedback is an effective instrument for the training of grasping with a prosthesis at low- and medium-force levels. <i>Experimental Brain Research</i> , 2017, 235, 2547-2559.	0.7	45
164	The biology of skin wetness perception and its implications in manual function and for reproducing complex somatosensory signals in neuroprosthetics. <i>Journal of Neurophysiology</i> , 2017, 117, 1761-1775.	0.9	22
165	A review of invasive and non-invasive sensory feedback in upper limb prostheses. <i>Expert Review of Medical Devices</i> , 2017, 14, 439-447.	1.4	129

#	ARTICLE	IF	CITATIONS
166	On prosthetic control: A regenerative agonist-antagonist myoneural interface. <i>Science Robotics</i> , 2017, 2, .	9.9	59
167	Short- and Long-Term Learning of Feedforward Control of a Myoelectric Prosthesis with Sensory Feedback by Amputees. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 2133-2145.	2.7	66
168	Artificial spatiotemporal touch inputs reveal complementary decoding in neocortical neurons. <i>Scientific Reports</i> , 2017, 7, 45898.	1.6	37
169	Fascicular nerve stimulation and recording using a novel double-aisle regenerative electrode. <i>Journal of Neural Engineering</i> , 2017, 14, 046003.	1.8	30
170	GLIMPSE: Google Glass interface for sensory feedback in myoelectric hand prostheses. <i>Journal of Neural Engineering</i> , 2017, 14, 036007.	1.8	40
171	Psychophysical correspondence between vibrotactile intensity and intracortical microstimulation for tactile neuroprostheses in rats. <i>Journal of Neural Engineering</i> , 2017, 14, 016010.	1.8	14
172	Rodent model for assessing the long term safety and performance of peripheral nerve recording electrodes. <i>Journal of Neural Engineering</i> , 2017, 14, 016008.	1.8	40
173	Nature-Inspired Structural Materials for Flexible Electronic Devices. <i>Chemical Reviews</i> , 2017, 117, 12893-12941.	23.0	578
174	Giuliano Vanghetti and the innovation of "œcineplastic operations" Neurology, 2017, 89, 1627-1632.	1.5	19
175	Volitional Control Research. , 2017, , 137-150.		2
176	Design, fabrication, and characterization of a scalable tissue-engineered-electronic-nerve-interface (TEENI) device. , 2017, , .		14
177	A cosmetic prosthetic digit with bioinspired embedded touch feedback. , 2017, 2017, 1136-1141.		8
178	Novel neural interface electrode array for the peripheral nerve. , 2017, 2017, 1067-1072.		7
179	Stretchable Dual-Capacitor Multi-Sensor for Touch-Curvature-Pressure-Strain Sensing. <i>Scientific Reports</i> , 2017, 7, 10854.	1.6	37
180	Separability of neural responses to standardised mechanical stimulation of limbs. <i>Scientific Reports</i> , 2017, 7, 11138.	1.6	22
181	A somatotopic bidirectional hand prosthesis with transcutaneous electrical nerve stimulation based sensory feedback. <i>Scientific Reports</i> , 2017, 7, 10930.	1.6	147
182	Toward Bioelectronic Medicine"Neuromodulation of Small Peripheral Nerves Using Flexible Neural Clip. <i>Advanced Science</i> , 2017, 4, 1700149.	5.6	76
183	A new 3D self-adaptive nerve electrode for high density peripheral nerve stimulation and recording. , 2017, , .		4

#	ARTICLE	IF	CITATIONS
184	Combining neural electrodes and triboelectric nanogenerators (TENGS) to enable a self-sustainable platform for neuromodulation. , 2017, , .		3
185	Asymmetric Sensory-Motor Regeneration of Transected Peripheral Nerves Using Molecular Guidance Cues. Scientific Reports, 2017, 7, 14323.	1.6	14
186	<i>In vitro</i> multichannel single-unit recordings of action potentials from the mouse sciatic nerve. Biomedical Physics and Engineering Express, 2017, 3, 045020.	0.6	13
187	Restoring Touch through Intracortical Microstimulation of Human Somatosensory Cortex. , 2017, , .		4
188	Rapid prototyping of flexible intrafascicular electrode arrays by picosecond laser structuring. Journal of Neural Engineering, 2017, 14, 066016.	1.8	21
189	Tactile piezoresistive sensors for robotic application: Design and metrological characterization. , 2017, , .		7
190	Simulating tactile signals from the whole hand with millisecond precision. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5693-E5702.	3.3	191
191	Adjacent regenerative peripheral nerve interfaces produce phase-antagonist signals during voluntary walking in rats. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 33.	2.4	9
193	On the Use of Intraneural Transversal Electrodes to Develop Bidirectional Bionic Limbs. Biosystems and Biorobotics, 2017, , 737-741.	0.2	0
194	The Quest for a Bionic Hand. Biosystems and Biorobotics, 2017, , 565-569.	0.2	0
195	A System for Electrotactile Feedback Using Electronic Skin and Flexible Matrix Electrodes: Experimental Evaluation. IEEE Transactions on Haptics, 2017, 10, 162-172.	1.8	57
196	Selective stimulation and neural recording on peripheral nerves using flexible split ring electrodes. Sensors and Actuators B: Chemical, 2017, 242, 1165-1170.	4.0	62
197	Stable Detection of Movement Intent From Peripheral Nerves: Chronic Study in Dogs. Proceedings of the IEEE, 2017, 105, 50-65.	16.4	37
198	Humans Can Integrate Augmented Reality Feedback in Their Sensorimotor Control of a Robotic Hand. IEEE Transactions on Human-Machine Systems, 2017, 47, 583-589.	2.5	42
199	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.	16.4	71
200	A handheld device for magnetically inserting a neural interface into a peripheral nervous system. , 2017, 2017, 226-229.		4
201	Unidirectional ephaptic stimulation between two myelinated axons. , 2017, 2017, 230-233.		2
202	Upper limb cortical maps in amputees with targeted muscle and sensory reinnervation. Brain, 2017, 140, 2993-3011.	3.7	78

#	ARTICLE	IF	CITATIONS
203	A model study of the neural interaction via mutual coupling factor identification. , 2017, 2017, 3329-3332.		10
204	Somatosensory cortex activation during electrical stimulation of projected finger map on the stump skin of forearm amputee. , 2017, , .		2
205	Individual hand movement detection and classification using peripheral nerve signals. , 2017, , .		9
206	Restoration of motor control and proprioceptive and cutaneous sensation in humans with prior upper-limb amputation via multiple Utah Slanted Electrode Arrays (USEAs) implanted in residual peripheral arm nerves. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 121.	2.4	176
207	Analysis of passive charge balancing for safe current-mode neural stimulation. , 2017, , .		7
208	The Onset Time of the Ownership Sensation in the Moving Rubber Hand Illusion. Frontiers in Psychology, 2017, 8, 344.	1.1	53
209	Selectivity and Longevity of Peripheral-Nerve and Machine Interfaces: A Review. Frontiers in Neurorobotics, 2017, 11, 59.	1.6	71
210	A 3D Computational Model of Transcutaneous Electrical Nerve Stimulation for Estimating \hat{A}^2 Tactile Nerve Fiber Excitability. Frontiers in Neuroscience, 2017, 11, 250.	1.4	16
211	Recording Spikes Activity in Cultured Hippocampal Neurons Using Flexible or Transparent Graphene Transistors. Frontiers in Neuroscience, 2017, 11, 466.	1.4	33
212	Invasive Intraneural Interfaces: Foreign Body Reaction Issues. Frontiers in Neuroscience, 2017, 11, 497.	1.4	81
213	Nanowire FET Based Neural Element for Robotic Tactile Sensing Skin. Frontiers in Neuroscience, 2017, 11, 501.	1.4	97
214	On neuromechanical approaches for the study of biological and robotic grasp and manipulation. Journal of NeuroEngineering and Rehabilitation, 2017, 14, 101.	2.4	21
215	A statistical description of pairwise interaction between nerve fibres?. , 2017, , .		12
216	RBFNN-based Modelling and Analysis for the Signal Reconstruction of Peripheral Nerve Tissue. , 2017, , .		3
217	Should patients with brain implants undergo MRI?. Journal of Neural Engineering, 2018, 15, 041002.	1.8	78
218	Psychophysical Evaluation of Subdermal Electrical Stimulation in Relation to Prosthesis Sensory Feedback. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 709-715.	2.7	20
219	Motor-commands decoding using peripheral nerve signals: a review. Journal of Neural Engineering, 2018, 15, 031004.	1.8	47
221	Controlling sensation intensity for electrotactile stimulation in human-machine interfaces. Science Robotics, 2018, 3, .	9.9	59

#	ARTICLE	IF	CITATIONS
222	Quality of life and reconstructive surgery efforts in severe hand injuries. <i>Innovative Surgical Sciences</i> , 2018, 3, 147-156.	0.4	2
223	On the use of Parylene C polymer as substrate for peripheral nerve electrodes. <i>Scientific Reports</i> , 2018, 8, 5965.	1.6	57
224	A Multi-Sensor and Parallel Processing SoC for Miniaturized Medical Instrumentation. <i>IEEE Journal of Solid-State Circuits</i> , 2018, 53, 2076-2087.	3.5	64
225	Upper Limb Prosthesis Control for High-Level Amputees via Myoelectric Recognition of Leg Gestures. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 1056-1066.	2.7	26
226	Multi-channel Electro-tactile Feedback System for a Prosthetic Hand. , 2018, , 181-193.		4
227	A fast intracortical brain-machine interface with patterned optogenetic feedback. <i>Journal of Neural Engineering</i> , 2018, 15, 046011.	1.8	18
228	Influence of nerve cuff channel count and implantation site on the separability of afferent ENG. <i>Journal of Neural Engineering</i> , 2018, 15, 046004.	1.8	21
229	Evoked haptic sensations in the hand via non-invasive proximal nerve stimulation. <i>Journal of Neural Engineering</i> , 2018, 15, 046005.	1.8	48
230	Adding vibrotactile feedback to a myoelectric-controlled hand improves performance when online visual feedback is disturbed. <i>Human Movement Science</i> , 2018, 58, 32-40.	0.6	23
231	Vibrotactile Stimulation in the Upper-Arm for Restoring Individual Finger Sensations in Hand Prosthesis. <i>Journal of Medical and Biological Engineering</i> , 2018, 38, 782-789.	1.0	6
232	Paradigms for restoration of somatosensory feedback via stimulation of the peripheral nervous system. <i>Clinical Neurophysiology</i> , 2018, 129, 851-862.	0.7	60
233	Robust and high-performance soft inductive tactile sensors based on the Eddy-current effect. <i>Sensors and Actuators A: Physical</i> , 2018, 271, 44-52.	2.0	42
234	Nanomaterials at the neural interface. <i>Current Opinion in Neurobiology</i> , 2018, 50, 50-55.	2.0	49
235	Peptide-based coatings for flexible implantable neural interfaces. <i>Scientific Reports</i> , 2018, 8, 502.	1.6	24
236	Identifying and prioritizing concerns associated with prosthetic devices for use in a benefit-risk assessment: a mixed-methods approach. <i>Expert Review of Medical Devices</i> , 2018, 15, 385-398.	1.4	21
237	Assessing the quality of supplementary sensory feedback using the crossmodal congruency task. <i>Scientific Reports</i> , 2018, 8, 6203.	1.6	14
238	Battery-free neuromodulator for peripheral nerve direct stimulation. <i>Nano Energy</i> , 2018, 50, 148-158.	8.2	88
239	Illusory movement perception improves motor control for prosthetic hands. <i>Science Translational Medicine</i> , 2018, 10, .	5.8	162

#	ARTICLE	IF	CITATIONS
240	Phantom somatosensory evoked potentials following selective intraneural electrical stimulation in two amputees. <i>Clinical Neurophysiology</i> , 2018, 129, 1117-1120.	0.7	35
241	Sensory adaptation to electrical stimulation of the somatosensory nerves. <i>Journal of Neural Engineering</i> , 2018, 15, 046002.	1.8	99
242	Bionic intrafascicular interfaces for recording and stimulating peripheral nerve fibers. <i>Bioelectronics in Medicine</i> , 2018, 1, 55-69.	2.0	18
243	Time course study of long-term biocompatibility and foreign body reaction to intraneural polyimide-based implants. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 746-757.	2.1	43
244	Robust extraction of basis functions for simultaneous and proportional myoelectric control via sparse non-negative matrix factorization. <i>Journal of Neural Engineering</i> , 2018, 15, 026017.	1.8	51
245	A new psychometric questionnaire for reporting of somatosensory percepts. <i>Journal of Neural Engineering</i> , 2018, 15, 013002.	1.8	18
246	Biotolerability of Intracortical Microelectrodes. <i>Advanced Biology</i> , 2018, 2, 1700115.	3.0	7
247	A Highly Selective 3D Spiked Ultraflexible Neural (SUN) Interface for Decoding Peripheral Nerve Sensory Information. <i>Advanced Healthcare Materials</i> , 2018, 7, 1700987.	3.9	36
248	Human ability to discriminate surface chemistry by touch. <i>Materials Horizons</i> , 2018, 5, 70-77.	6.4	24
249	Neuromorphic Artificial Sense of Touch: Bridging Robotics and Neuroscience. <i>Springer Proceedings in Advanced Robotics</i> , 2018, , 617-630.	0.9	6
250	Tissue-Engineered Peripheral Nerve Interfaces. <i>Advanced Functional Materials</i> , 2018, 28, 1701713.	7.8	53
251	Neuroprostheses for Restoring Sensation. , 2018, , 1249-1260.		0
252	Neural Prostheses for Reaching and Grasping. , 2018, , .		0
253	Evaluation of Time-Domain Features of Sensory ENG Signals. , 2018, 2018, 2438-2441.		1
254	Towards a high precision robotic platform for neural interface implantation. , 2018, , .		4
255	Chameleon Skin Inspired Au Nanodisk Patterned Strain Responsive PDMS Film. , 2018, , .		1
256	Artificial tactile and proprioceptive feedback improves performance and confidence on object identification tasks. <i>PLoS ONE</i> , 2018, 13, e0207659.	1.1	91
257	A Multimodal Embedded Sensor System for Scalable Robotic and Prosthetic Fingers. , 2018, , .		3

#	ARTICLE	IF	CITATIONS
258	Capacitive-Piezoelectric Tandem Architecture for Biomimetic Tactile Sensing in Prosthetic Hand. , 2018, , .		4
259	Optimizing User Integration for Individualized Rehabilitation. , 2018, , .		0
260	Innovations in electrical stimulation harness neural plasticity to restore motor function. Bioelectronics in Medicine, 2018, 1, 251-263.	2.0	5
261	Accurate Decoding of Material Textures Using a finger Mounted Accelerometer. , 2018, , .		1
262	A psychophysical investigation on vibrotactile sensing for transradial prosthesis users. Cogent Engineering, 2018, 5, 1539943.	1.1	1
263	Comparison of linear frequency and amplitude modulation for intraneural sensory feedback in bidirectional hand prostheses. Scientific Reports, 2018, 8, 16666.	1.6	85
264	Positioning the Nerve Cuff Distally on the Sciatic Nerve Improves the Classification of Ankle-Movement Proprioceptive ENG Signals. , 2018, 2018, 2430-2433.		0
265	Integrity Assessment of a Hybrid DBS Probe that Enables Neurotransmitter Detection Simultaneously to Electrical Stimulation and Recording. Micromachines, 2018, 9, 510.	1.4	12
266	Micro-folded 3D neural electrodes fully integrated in polyimide. , 2018, 2018, 4587-4590.		1
267	Dexamethasone Reduces the Foreign Body Reaction to Intraneural Electrode Implants in the Peripheral Nerve of the Rat. Anatomical Record, 2018, 301, 1722-1733.	0.8	17
268	Feel-Good Robotics: Requirements on Touch for Embodiment in Assistive Robotics. Frontiers in Neurobotics, 2018, 12, 84.	1.6	50
269	Batteryless Pelvic Nerve Direct Modulation for Bladder Voiding Using an Active Neural Clip. , 2018, , .		3
270	Motorized Biomechatronic Upper and Lower Limb Prosthesesâ€™ Clinically Relevant Outcomes. PM and R, 2018, 10, S207-S219.	0.9	11
271	Patient care for postamputation pain and the complexity of therapies: living experiences. Pain Management, 2018, 8, 441-453.	0.7	6
272	Brain Computer Interfaces in Rehabilitation Medicine. PM and R, 2018, 10, S233-S243.	0.9	59
273	Biomimetic encoding model for restoring touch in bionic hands through a nerve interface. Journal of Neural Engineering, 2018, 15, 066033.	1.8	72
274	Accuracy Optimization of the Spike Sorting Algorithm for Classification of Neural Signals. , 2018, , .		1
275	The critical stability task: quantifying sensory-motor control during ongoing movement in nonhuman primates. Journal of Neurophysiology, 2018, 120, 2164-2181.	0.9	1

#	ARTICLE	IF	CITATIONS
276	A microfabricated nerve-on-a-chip platform for rapid assessment of neural conduction in explanted peripheral nerve fibers. <i>Nature Communications</i> , 2018, 9, 4403.	5.8	38
277	Recovering Motor Activation with Chronic Peripheral Nerve Computer Interface. <i>Scientific Reports</i> , 2018, 8, 14149.	1.6	12
278	Motor Control and Sensory Feedback Enhance Prosthesis Embodiment and Reduce Phantom Pain After Long-Term Hand Amputation. <i>Frontiers in Human Neuroscience</i> , 2018, 12, 352.	1.0	134
279	Myocontrol is closed-loop control: incidental feedback is sufficient for scaling the prosthesis force in routine grasping. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2018, 15, 81.	2.4	42
280	Preliminary Results of a Handheld Nerve Electrode Insertion Device. , 2018, , .		3
281	Biomimetic Intra-neural Sensory Feedback Enhances Sensation Naturalness, Tactile Sensitivity, and Manual Dexterity in a Bidirectional Prosthesis. <i>Neuron</i> , 2018, 100, 37-45.e7.	3.8	265
282	Improving internal model strength and performance of prosthetic hands using augmented feedback. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2018, 15, 70.	2.4	34
283	Handheld Nerve Electrode Insertion Tool. <i>IEEE/ASME Transactions on Mechatronics</i> , 2018, 23, 2525-2530.	3.7	3
284	Toward advanced neural interfaces for the peripheral nervous system (PNS) and their future applications. <i>Current Opinion in Biomedical Engineering</i> , 2018, 6, 130-137.	1.8	34
285	Proprioception from a neurally controlled lower-extremity prosthesis. <i>Science Translational Medicine</i> , 2018, 10, .	5.8	145
287	Spectrally distinct channelrhodopsins for two-colour optogenetic peripheral nerve stimulation. <i>Nature Biomedical Engineering</i> , 2018, 2, 485-496.	11.6	32
288	Home Use of a Neural-connected Sensory Prosthesis Provides the Functional and Psychosocial Experience of Having a Hand Again. <i>Scientific Reports</i> , 2018, 8, 9866.	1.6	168
289	Bilateral cortical representation of tactile roughness. <i>Brain Research</i> , 2018, 1699, 79-88.	1.1	22
290	Case Studies in Neuroscience: Sensations elicited and discrimination ability from nerve cuff stimulation in an amputee over time. <i>Journal of Neurophysiology</i> , 2018, 120, 291-295.	0.9	20
291	Organic Electronics for Artificial Touch. <i>Trends in Neurosciences</i> , 2018, 41, 568-570.	4.2	3
292	Spike detection: The first step towards an ENG-based neuroprotheses. <i>Journal of Neuroscience Methods</i> , 2018, 308, 294-308.	1.3	8
293	Hierarchically distributed microstructure design of haptic sensors for personalized fingertip mechanosensational manipulation. <i>Materials Horizons</i> , 2018, 5, 920-931.	6.4	37
294	Automatic hand phantom map generation and detection using decomposition support vector machines. <i>BioMedical Engineering OnLine</i> , 2018, 17, 74.	1.3	2

#	ARTICLE	IF	CITATIONS
295	Myoelectric Prosthesis Users Improve Performance Time and Accuracy Using Vibrotactile Feedback When Visual Feedback Is Disturbed. Archives of Physical Medicine and Rehabilitation, 2018, 99, 2263-2270.	0.5	16
296	Improving Fine Control of Grasping Force during Hand-Object Interactions for a Soft Synergy-Inspired Myoelectric Prosthetic Hand. Frontiers in Neurorobotics, 2017, 11, 71.	1.6	26
297	Human's Capability to Discriminate Spatial Forces at the Big Toe. Frontiers in Neurorobotics, 2018, 12, 13.	1.6	1
298	Commentary: Injecting Instructions into Premotor Cortex. Frontiers in Cellular Neuroscience, 2018, 12, 65.	1.8	6
299	Initial Clinical Evaluation of the Modular Prosthetic Limb. Frontiers in Neurology, 2018, 9, 153.	1.1	33
300	Leg Prosthesis With Somatosensory Feedback Reduces Phantom Limb Pain and Increases Functionality. Frontiers in Neurology, 2018, 9, 270.	1.1	69
301	Discrimination and Recognition of Phantom Finger Sensation Through Transcutaneous Electrical Nerve Stimulation. Frontiers in Neuroscience, 2018, 12, 283.	1.4	26
302	A Digital Hardware Realization for Spiking Model of Cutaneous Mechanoreceptor. Frontiers in Neuroscience, 2018, 12, 322.	1.4	25
303	Update on Peripheral Nerve Electrodes for Closed-Loop Neuroprosthetics. Frontiers in Neuroscience, 2018, 12, 350.	1.4	59
304	Recent Advances in Tactile Sensing Technology. Micromachines, 2018, 9, 321.	1.4	67
305	A Multichannel High-Frequency Power-Isolated Neural Stimulator With Crosstalk Reduction. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 940-953.	2.7	19
306	An Implantable Peripheral Nerve Recording and Stimulation System for Experiments on Freely Moving Animal Subjects. Scientific Reports, 2018, 8, 6115.	1.6	77
307	Thermosensory micromapping of warm and cold sensitivity across glabrous and hairy skin of male and female hands and feet. Journal of Applied Physiology, 2018, 125, 723-736.	1.2	52
308	Progress in Neuroengineering for brain repair: New challenges and open issues. Brain and Neuroscience Advances, 2018, 2, 239821281877647.	1.8	27
309	Imaging fast neural traffic at fascicular level with electrical impedance tomography: proof of principle in rat sciatic nerve. Journal of Neural Engineering, 2018, 15, 056025.	1.8	40
310	High-density peripheral nerve cuffs restore natural sensation to individuals with lower-limb amputations. Journal of Neural Engineering, 2018, 15, 056002.	1.8	86
311	Audible Feedback Improves Internal Model Strength and Performance of Myoelectric Prosthesis Control. Scientific Reports, 2018, 8, 8541.	1.6	28
312	Electrodes for the Neural Interface. , 2018, , 239-274.		2

#	ARTICLE	IF	CITATIONS
313	Prosthesis with neuromorphic multilayered e-dermis perceives touch and pain. <i>Science Robotics</i> , 2018, 3, .	9.9	280
314	Soft Hydrogel Zwitterionic Coatings Minimize Fibroblast and Macrophage Adhesion on Polyimide Substrates. <i>Langmuir</i> , 2019, 35, 1085-1099.	1.6	31
315	Multisensory bionic limb to achieve prosthesis embodiment and reduce distorted phantom limb perceptions. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2019, 90, 833-836.	0.9	101
316	Developing Next-Generation Brain Sensing Technologies—A Review. <i>IEEE Sensors Journal</i> , 2019, 19, 10163-10175.	2.4	26
317	Vibrotactile Feedback Improves Foot Placement Perception on Stairs for Lower-Limb Prosthesis Users. , 2019, 2019, 1215-1220.		14
318	Probing peripheral neural pathways in electrically stimulation induced sensation. , 2019, , .		1
319	Learning of Artificial Sensation Through Long-Term Home Use of a Sensory-Enabled Prosthesis. <i>Frontiers in Neuroscience</i> , 2019, 13, 853.	1.4	58
320	Biomimetic sensory feedback through peripheral nerve stimulation improves dexterous use of a bionic hand. <i>Science Robotics</i> , 2019, 4, .	9.9	244
321	Classification of naturally evoked compound action potentials in peripheral nerve spatiotemporal recordings. <i>Scientific Reports</i> , 2019, 9, 11145.	1.6	24
322	Skin Stretch Enhances Illusory Movement in Persons with Lower-Limb Amputation. , 2019, 2019, 1233-1238.		7
323	Achieving Neural Compatibility With Human Sensorimotor Control in Prosthetic and Therapeutic Devices. <i>IEEE Transactions on Medical Robotics and Bionics</i> , 2019, 1, 122-134.	2.1	16
324	Vibration Induced Proprioceptive Modulation in Surface-EMG Based Control of a Robotic Arm. , 2019, , .		7
325	Long-term implant of intramuscular sensors and nerve transfers for wireless control of robotic arms in above-elbow amputees. <i>Science Robotics</i> , 2019, 4, .	9.9	81
326	Neuromorphic vision and tactile fusion for upper limb prosthesis control. , 2019, 2019, 981-984.		6
327	Single-Cell Electrical Stimulation Using CMOS-Based High-Density Microelectrode Arrays. <i>Frontiers in Neuroscience</i> , 2019, 13, 208.	1.4	53
328	Neural correlates of proprioceptive upper limb position matching. <i>Human Brain Mapping</i> , 2019, 40, 4813-4826.	1.9	9
329	Wearable Robots. , 2019, , 1-8.		0
330	Enabling the sense of touch in EMG-controlled hand prostheses using vibro-tactile stimulation. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
331	Mechanical considerations for design and implementation of peripheral intraneural devices. Journal of Neural Engineering, 2019, 16, 064001.	1.8	12
332	Neural engineering: the process, applications, and its role in the future of medicine. Journal of Neural Engineering, 2019, 16, 063002.	1.8	14
333	Microstructured thin-film electrode technology enables proof of concept of scalable, soft auditory brainstem implants. Science Translational Medicine, 2019, 11, .	5.8	47
334	Creating a neuroprosthesis for active tactile exploration of textures. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21821-21827.	3.3	24
335	The Prosthetic Arm: A Dramatic Improvement For The Limb Amputation From The Humerus. , 2019, , .		3
336	E-Skins: Biomimetic Sensing and Encoding for Upper Limb Prostheses. Proceedings of the IEEE, 2019, 107, 2052-2064.	16.4	28
337	Large-Area Soft e-Skin: The Challenges Beyond Sensor Designs. Proceedings of the IEEE, 2019, 107, 2016-2033.	16.4	214
338	What microsurgeon, orthopaedic and plastic surgeon should know about bionic hand. Injury, 2019, 50, S137-S140.	0.7	2
339	Electrotactile Feedback with Spatial and Mixed Coding for Object Identification and Closed-loop Control of Grasping Force in Myoelectric Prostheses. , 2019, 2019, 1805-1808.		13
340	Spatiotemporal characteristics of neural activity in tibial nerves with carbon nanotube yarn electrodes. Journal of Neuroscience Methods, 2019, 328, 108450.	1.3	11
341	Fascicle specific targeting for selective peripheral nerve stimulation. Journal of Neural Engineering, 2019, 16, 066040.	1.8	37
342	Soft-packaged sensory glove system for human-like natural interaction and control of prosthetic hands. NPG Asia Materials, 2019, 11, .	3.8	30
343	3D Patterned Thin-Film Electrodes for Neural Prostheticsâ€“Proof of Concept. , 2019, , .		0
344	Functional Frequency Discrimination From Cortical Somatosensory Stimulation in Humans. Frontiers in Neuroscience, 2019, 13, 832.	1.4	5
345	Movement related activity in the β band of the human EEG during a robot-based proprioceptive task. , 2019, 2019, 1019-1024.		0
346	Sensory feedback restoration in leg amputees improves walking speed, metabolic cost and phantom pain. Nature Medicine, 2019, 25, 1356-1363.	15.2	174
347	Visual inputs and postural manipulations affect the location of somatosensory percepts elicited by electrical stimulation. Scientific Reports, 2019, 9, 11699.	1.6	14
348	Temporal Modulation of the Response of Sensory Fibers to Paired-Pulse Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1676-1683.	2.7	11

#	ARTICLE	IF	CITATIONS
349	A rat model for assessing the long-term safety and performance of peripheral nerve electrode arrays. <i>Journal of Neuroscience Methods</i> , 2019, 328, 108437.	1.3	7
350	Enhancing functional abilities and cognitive integration of the lower limb prosthesis. <i>Science Translational Medicine</i> , 2019, 11, .	5.8	133
351	A Modular Transradial Bypass Socket for Surface Myoelectric Prosthetic Control in Non-Amputees. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 2070-2076.	2.7	18
352	Safety of long-term electrical peripheral nerve stimulation: review of the state of the art. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 13.	2.4	127
353	Evoked Haptic Sensation in the Hand With Concurrent Non-Invasive Nerve Stimulation. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 2761-2767.	2.5	21
354	Morphological/nanostructural control toward intrinsically stretchable organic electronics. <i>Chemical Society Reviews</i> , 2019, 48, 1741-1786.	18.7	117
355	Bionic reconstruction. <i>Wiener Klinische Wochenschrift</i> , 2019, 131, 599-607.	1.0	15
356	A shape-memory and spiral light-emitting device for precise multisite stimulation of nerve bundles. <i>Nature Communications</i> , 2019, 10, 2790.	5.8	33
357	An Intrafascicular Neural Interface With Enhanced Interconnection for Recording of Peripheral Nerve Signals. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1312-1319.	2.7	12
358	Optimal integration of intraneural somatosensory feedback with visual information: a single-case study. <i>Scientific Reports</i> , 2019, 9, 7916.	1.6	38
359	When Less Is More – Discrete Tactile Feedback Dominates Continuous Audio Biofeedback in the Integrated Percept While Controlling a Myoelectric Prosthetic Hand. <i>Frontiers in Neuroscience</i> , 2019, 13, 578.	1.4	27
360	Data Driven Symbiotic Machine Learning for the Identification of Motion-Based Action Potentials. <i>International Journal of Privacy and Health Information Management</i> , 2019, 7, 61-79.	0.2	0
361	Inter-Limb Transfer of Grasp Force Perception With Closed-Loop Hand Prosthesis. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 927-936.	2.7	14
362	Multi-modal prosthetic fingertip sensor with proximity, contact, and force localization capabilities. <i>Advances in Mechanical Engineering</i> , 2019, 11, 168781401984464.	0.8	16
363	Tuning drug delivery from conducting polymer films for accurately controlled release of charged molecules. <i>Journal of Controlled Release</i> , 2019, 304, 173-180.	4.8	35
365	Mechanism and Applications of Electrical Stimulation Disturbance on Motoneuron Excitability Studied Using Flexible Intramuscular Electrode. <i>Advanced Biology</i> , 2019, 3, e1800281.	3.0	14
366	Real-Time Performance of a Tactile Neuroprosthesis on Awake Behaving Rats. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 1053-1062.	2.7	17
367	Soft High-Resolution Neural Interfacing Probes: Materials and Design Approaches. <i>Nano Letters</i> , 2019, 19, 2741-2749.	4.5	59

#	ARTICLE	IF	CITATIONS
368	Integration of biological systems with electronic-mechanical assemblies. <i>Acta Biomaterialia</i> , 2019, 95, 91-111.	4.1	23
369	Prosthetic Hand with Biomimetic Tactile Sensing and Force Feedback. , 2019, , .		12
370	Microneurography as a tool to develop decoding algorithms for peripheral neuro-controlled hand prostheses. <i>BioMedical Engineering OnLine</i> , 2019, 18, 44.	1.3	10
371	Highly Conductive, Stretchable, and Cell-Adhesive Hydrogel by Nanoclay Doping. <i>Small</i> , 2019, 15, e1901406.	5.2	62
372	A Neuromorphic Model to Match the Spiking Activity of Merkel Mechanoreceptors With Biomimetic Tactile Sensors for Bioengineering Applications. <i>IEEE Transactions on Medical Robotics and Bionics</i> , 2019, 1, 97-105.	2.1	6
373	Optimization of Semiautomated Calibration Algorithm of Multichannel Electrotactile Feedback for Myoelectric Hand Prosthesis. <i>Applied Bionics and Biomechanics</i> , 2019, 2019, 1-9.	0.5	14
374	Peripheral nerve bionic interface: a review of electrodes. <i>International Journal of Intelligent Robotics and Applications</i> , 2019, 3, 11-18.	1.6	42
375	Analysis of Man-Machine Interfaces in Upper-Limb Prosthesis: A Review. <i>Robotics</i> , 2019, 8, 16.	2.1	43
376	Micro-channel sieve electrode for concurrent bidirectional peripheral nerve interface. Part B: stimulation. <i>Journal of Neural Engineering</i> , 2019, 16, 026002.	1.8	7
377	Efficacy of transcutaneous electrical nerve stimulation combined with therapeutic exercise on hand function in children with hemiplegic cerebral palsy. <i>Somatosensory & Motor Research</i> , 2019, 36, 49-55.	0.4	7
378	Visuotactile synchrony of stimulation-induced sensation and natural somatosensation. <i>Journal of Neural Engineering</i> , 2019, 16, 036025.	1.8	23
379	Virtual Reality Provides an Effective Platform for Functional Evaluations of Closed-Loop Neuromyoelectric Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 876-886.	2.7	30
380	The benefits of sensation on the experience of a hand: A qualitative case series. <i>PLoS ONE</i> , 2019, 14, e0211469.	1.1	46
381	Long-Term Functionality of Transversal Intraneural Electrodes is Improved by Dexamethasone Treatment. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 457-464.	2.7	15
382	A thin-film multichannel electrode for muscle recording and stimulation in neuroprosthetics applications. <i>Journal of Neural Engineering</i> , 2019, 16, 026035.	1.8	26
383	From flexible electronics technology in the era of IoT and artificial intelligence toward future implanted body sensor networks. <i>APL Materials</i> , 2019, 7, .	2.2	116
384	Intraneural sensory feedback restores grip force control and motor coordination while using a prosthetic hand. <i>Journal of Neural Engineering</i> , 2019, 16, 026034.	1.8	66
385	Clinical Perspectives in Upper Limb Prostheses: An Update. <i>Current Surgery Reports</i> , 2019, 7, 1.	0.4	37

#	ARTICLE	IF	CITATIONS
386	Restoring tactile sensations via neural interfaces for real-time force-and-slippage closed-loop control of bionic hands. <i>Science Robotics</i> , 2019, 4, .	9.9	112
387	A closed-loop hand prosthesis with simultaneous intraneural tactile and position feedback. <i>Science Robotics</i> , 2019, 4, .	9.9	198
388	Development of Human Mashine Interface for an Electromyogram Recorder. , 2019, , .		2
389	Compact electrotactile stimulation and EMG acquisition system with embedded blanking of stimulation artifacts. , 2019, , .		3
390	Developing a smart 3D printed canine orthosis. , 2019, , .		1
391	Implantable Neural Interfaces and Wearable Tactile Systems for Bidirectional Neuroprosthetics Systems. <i>Advanced Healthcare Materials</i> , 2019, 8, e1801345.	3.9	32
392	Psychometric characterization of incidental feedback sources during grasping with a hand prosthesis. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2019, 16, 155.	2.4	23
393	Bidirectional Control of Myoelectric Prostheses in Upper Limb Amputees: Current Results and Expectations. <i>Serbian Journal of Experimental and Clinical Research</i> , 2019, .	0.2	0
394	Characterization of multi-channel intraneural stimulation in transradial amputees. <i>Scientific Reports</i> , 2019, 9, 19258.	1.6	51
395	Phantom limb pain: peripheral neuromodulatory and neuroprosthetic approaches to treatment. <i>Muscle and Nerve</i> , 2019, 59, 154-167.	1.0	23
396	Sixâ€Month Assessment of a Hand Prosthesis with Intraneural Tactile Feedback. <i>Annals of Neurology</i> , 2019, 85, 137-154.	2.8	140
397	Micro-channel sieve electrode for concurrent bidirectional peripheral nerve interface. Part A: recording. <i>Journal of Neural Engineering</i> , 2019, 16, 026001.	1.8	6
398	Nonlinear effect of biological feedback on brain attentional state. <i>Nonlinear Dynamics</i> , 2019, 95, 1923-1939.	2.7	31
399	An ASIC for Recording and Stimulation in Stacked Microchannel Neural Interfaces. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2019, 13, 259-270.	2.7	11
400	A Soft Pneumatic Actuator as a Haptic Wearable Device for Upper Limb Amputees: Toward a Soft Robotic Liner. <i>IEEE Robotics and Automation Letters</i> , 2019, 4, 17-24.	3.3	36
401	EMG and ENG-envelope pattern recognition for prosthetic hand control. <i>Journal of Neuroscience Methods</i> , 2019, 311, 38-46.	1.3	23
402	Longâ€term feasibility and biocompatibility of directly microsurgically implanted intrafascicular electrodes in free roaming rabbits. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2019, 107, 435-444.	1.6	6
403	When Flexible Organic Fieldâ€Effect Transistors Meet Biomimetics: A Prospective View of the Internet of Things. <i>Advanced Materials</i> , 2020, 32, e1901493.	11.1	136

#	ARTICLE	IF	CITATIONS
404	Selectivity of afferent microstimulation at the DRG using epineural and penetrating electrode arrays. <i>Journal of Neural Engineering</i> , 2020, 17, 016011.	1.8	16
405	Selective peripheral nerve recordings from nerve cuff electrodes using convolutional neural networks. <i>Journal of Neural Engineering</i> , 2020, 17, 016042.	1.8	30
406	Object stiffness recognition using haptic feedback delivered through transcutaneous proximal nerve stimulation. <i>Journal of Neural Engineering</i> , 2020, 17, 016002.	1.8	22
407	Spike train analysis in a digital neuromorphic system of cutaneous mechanoreceptor. <i>Neurocomputing</i> , 2020, 379, 343-355.	3.5	4
408	Spatially selective activation of the visual cortex via intraneural stimulation of the optic nerve. <i>Nature Biomedical Engineering</i> , 2020, 4, 181-194.	11.6	53
409	Dual-Parameter Modulation Improves Stimulus Localization in Multichannel Electrotactile Stimulation. <i>IEEE Transactions on Haptics</i> , 2020, 13, 393-403.	1.8	13
410	Artificial sensory feedback for bionic hands. , 2020, , 131-145.		6
411	Sensory information feedback for neural prostheses. , 2020, , 687-715.		8
412	Of Man and Mice: Translational Research in Neurotechnology. <i>Neuron</i> , 2020, 105, 12-15.	3.8	25
413	Development of an active high-density transverse intrafascicular micro-electrode probe. <i>Journal of Micromechanics and Microengineering</i> , 2020, 30, 015010.	1.5	13
414	Design Principles of a Light, Wearable Upper Limb Interface for Prosthetics and Teleoperation. , 2020, , 377-391.		3
415	Sensing and Control for Prosthetic Hands in Clinical and Research Applications. , 2020, , 445-468.		12
416	Soft eSkin: distributed touch sensing with harmonized energy and computing. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190156.	1.6	70
417	The Interaction Between Feedback Type and Learning in Routine Grasping With Myoelectric Prostheses. <i>IEEE Transactions on Haptics</i> , 2020, 13, 645-654.	1.8	13
418	A Computational Internal Model to Quantify the Effect of Sensorimotor Augmentation on Motor Output. , 2020, 2020, 3751-3754.		3
419	Somatosensory Evoked Potentials following upper limb noninvasive electrical stimulation: a case study. , 2020, 2020, 2881-2884.		1
420	Electrode-free visual prosthesis/exoskeleton control using augmented reality glasses in a first proof-of-technical-concept study. <i>Scientific Reports</i> , 2020, 10, 16279.	1.6	10
421	One-step Implantation of a 3D Neural Microelectrode Array. , 2020, 2020, 3379-3383.		1

#	ARTICLE	IF	CITATIONS
422	Cortical connectivity and spectral perturbations underlying TENS stimulation of hand nerves: a case study. , 2020, 2020, 3901-3904.		0
423	Advancing limb neural prostheses. Science, 2020, 370, 290-291.	6.0	34
424	Psychophysical detection and learning in freely behaving rats: a probabilistic dynamical model for operant conditioning. Journal of Computational Neuroscience, 2020, 48, 333-353.	0.6	0
425	Chronic nerve health following implantation of femoral nerve cuff electrodes. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 95.	2.4	10
426	Restoration of sensory information via bionic hands. Nature Biomedical Engineering, 2023, 7, 443-455.	11.6	111
427	A Compliant Ionic Adhesive Electrode with Ultralow Bioelectronic Impedance. Advanced Materials, 2020, 32, e2003723.	11.1	86
428	Neural feedback strategies to improve grasping coordination in neuromusculoskeletal prostheses. Scientific Reports, 2020, 10, 11793.	1.6	49
429	Unconventional Device and Material Approaches for Monolithic Biointegration of Implantable Sensors and Wearable Electronics. Advanced Materials Technologies, 2020, 5, .	3.0	37
430	Surface Feature Recognition and Grasped Object Slip Prevention With a Liquid Metal Tactile Sensor for a Prosthetic Hand. , 2020, , .		9
431	Sensory Feedback in Upper Limb Amputees Impacts Cortical Activity as Revealed by Multiscale Connectivity Analysis. , 2020, 2020, 3844-3847.		0
432	NeuroTac: A Neuromorphic Optical Tactile Sensor applied to Texture Recognition. , 2020, , .		28
433	Stiffness Perception using Transcutaneous Electrical Stimulation during Active and Passive Prosthetic Control. , 2020, 2020, 3909-3912.		5
434	Texture Discrimination with a Soft Biomimetic Finger Using a Flexible Neuromorphic Tactile Sensor Array That Provides Sensory Feedback. Soft Robotics, 2021, 8, 577-587.	4.6	36
435	Intensity Discriminability of Electrocutaneous and Intraneural Stimulation Pulse Frequency in Intact Individuals and Amputees. , 2020, 2020, 3893-3896.		22
436	W:Ti Flexible Transversal Electrode Array for Peripheral Nerve Stimulation: A Feasibility Study. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 2136-2143.	2.7	3
437	Impact of Encapsulation Tissue Growth on Selective Recording in Nerve Cuff Electrodes: A Simulation Study. , 2020, 2020, 3444-3447.		0
438	Soft Actuators for Soft Robotic Applications: A Review. Advanced Intelligent Systems, 2020, 2, 2000128.	3.3	244
439	Sensitivity to temporal parameters of intraneural tactile sensory feedback. Journal of NeuroEngineering and Rehabilitation, 2020, 17, 110.	2.4	15

#	ARTICLE	IF	CITATIONS
440	Miniaturised Wireless Power Transfer Systems for Neurostimulation: A Review. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1160-1178.	2.7	91
441	Neural Membrane Mutual Coupling Characterisation Using Entropy-Based Iterative Learning Identification. IEEE Access, 2020, 8, 205231-205243.	2.6	13
442	Brain reactions to the use of sensorized hand prosthesis in amputees. Brain and Behavior, 2020, 10, e01734.	1.0	6
443	Imaging fascicular organization of rat sciatic nerves with fast neural electrical impedance tomography. Nature Communications, 2020, 11, 6241.	5.8	24
444	The intraneural electrical stimulation of human median nerve: a simulation study. , 2020, , .		3
445	Evoking haptic sensations in the foot through high-density transcutaneous electrical nerve stimulations. Journal of Neural Engineering, 2020, 17, 036020.	1.8	15
446	Modelling the effects of ephaptic coupling on selectivity and response patterns during artificial stimulation of peripheral nerves. PLoS Computational Biology, 2020, 16, e1007826.	1.5	14
447	Technological Advances in Prosthesis Design and Rehabilitation Following Upper Extremity Limb Loss. Current Reviews in Musculoskeletal Medicine, 2020, 13, 485-493.	1.3	31
448	The future of upper extremity rehabilitation robotics: research and practice. Muscle and Nerve, 2020, 61, 708-718.	1.0	22
449	Host tissue response to floating microelectrode arrays chronically implanted in the feline spinal nerve. Journal of Neural Engineering, 2020, 17, 046012.	1.8	7
450	Tapping Into the Language of Touch: Using Non-invasive Stimulation to Specify Tactile Afferent Firing Patterns. Frontiers in Neuroscience, 2020, 14, 500.	1.4	8
451	A Review of Sensory Feedback in Upper-Limb Prostheses From the Perspective of Human Motor Control. Frontiers in Neuroscience, 2020, 14, 345.	1.4	100
452	The current state of bionic limbs from the surgeon's viewpoint. EFORT Open Reviews, 2020, 5, 65-72.	1.8	23
453	Evoking Apparent Moving Sensation in the Hand via Transcutaneous Electrical Nerve Stimulation. Frontiers in Neuroscience, 2020, 14, 534.	1.4	10
454	Stability of flexible thin-film metallization stimulation electrodes: analysis of explants after first-in-human study and improvement of in vivo performance. Journal of Neural Engineering, 2020, 17, 046006.	1.8	38
455	Sensory- and Action-Oriented Embodiment of Neurally-Interfaced Robotic Hand Prostheses. Frontiers in Neuroscience, 2020, 14, 389.	1.4	31
456	High-Performance Flexible Pressure and Temperature Sensors with Complex Leather Structure. Macromolecular Materials and Engineering, 2020, 305, 2000181.	1.7	12
457	Restoring Somatosensation: Advantages and Current Limitations of Targeting the Brainstem Dorsal Column Nuclei Complex. Frontiers in Neuroscience, 2020, 14, 156.	1.4	16

#	ARTICLE	IF	CITATIONS
458	Interfaces with the peripheral nervous system for the control of a neuroprosthetic limb: a review. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020, 17, 43.	2.4	48
459	Bidirectional brain-computer interfaces. <i>Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn</i> , 2020, 168, 163-181.	1.0	31
460	Polyvinyl Alcohol/SiO ₂ Hybrid Dielectric for Transparent Flexible/Stretchable All-Carbon Nanotube Thin-Film Transistor Integration. <i>Advanced Electronic Materials</i> , 2020, 6, 1901133.	2.6	22
461	A supertough electro-tendon based on spider silk composites. <i>Nature Communications</i> , 2020, 11, 1332.	5.8	73
462	A regenerative peripheral nerve interface allows real-time control of an artificial hand in upper limb amputees. <i>Science Translational Medicine</i> , 2020, 12, .	5.8	166
463	Decoding of grasping tasks from intraneural recordings in trans-radial amputee. <i>Journal of Neural Engineering</i> , 2020, 17, 026034.	1.8	39
464	Restoring Finger-Specific Sensory Feedback for Transradial Amputees via Non-Invasive Evoked Tactile Sensation. <i>IEEE Open Journal of Engineering in Medicine and Biology</i> , 2020, 1, 98-107.	1.7	29
465	NanoPt-A Nanostructured Electrode Coating for Neural Recording and Microstimulation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 14855-14865.	4.0	44
466	A Biomechatronic Upper-Limb Prosthesis Control Configuration and its Performance Comparison to Other Control Configurations. <i>IEEE Transactions on Medical Robotics and Bionics</i> , 2020, 2, 282-291.	2.1	4
467	A data-driven polynomial approach to reproduce the scar tissue outgrowth around neural implants. <i>Journal of Materials Science: Materials in Medicine</i> , 2020, 31, 59.	1.7	6
468	Spirally Arrayed Electrode for Spatially Selective and Minimally Displacive Peripheral Nerve Interface. <i>Journal of Microelectromechanical Systems</i> , 2020, 29, 514-521.	1.7	3
469	A computational model to design neural interfaces for lower-limb sensory neuroprostheses. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2020, 17, 24.	2.4	41
470	And Yet It Moves: What We Currently Know about Phantom Arm Movements. <i>Neuroscientist</i> , 2020, 26, 328-342.	2.6	6
471	Neural signal recording and processing in somatic neuroprosthetic applications. A review. <i>Journal of Neuroscience Methods</i> , 2020, 337, 108653.	1.3	31
472	E-skin and wearable systems for health care. , 2020, , 133-178.		9
473	Morphological Neural Computation Restores Discrimination of Naturalistic Textures in Trans-radial Amputees. <i>Scientific Reports</i> , 2020, 10, 527.	1.6	30
474	Object Shape and Surface Topology Recognition Using Tactile Feedback Evoked through Transcutaneous Nerve Stimulation. <i>IEEE Transactions on Haptics</i> , 2020, 13, 152-158.	1.8	24
475	Skill transfer learning for autonomous robots and human-robot cooperation: A survey. <i>Robotics and Autonomous Systems</i> , 2020, 128, 103515.	3.0	50

#	ARTICLE	IF	CITATIONS
476	Human brain connectivity: Clinical applications for clinical neurophysiology. <i>Clinical Neurophysiology</i> , 2020, 131, 1621-1651.	0.7	68
477	Hand Control With Invasive Feedback Is Not Impaired by Increased Cognitive Load. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 287.	2.0	31
478	Combination of Simultaneous Artificial Sensory Percepts to Identify Prosthetic Hand Postures: A Case Study. <i>Scientific Reports</i> , 2020, 10, 6576.	1.6	12
479	Towards machine to brain interfaces: sensory stimulation enhances sensorimotor dynamic functional connectivity in upper limb amputees. <i>Journal of Neural Engineering</i> , 2020, 17, 035002.	1.8	21
480	Electronic neural interfaces. <i>Nature Electronics</i> , 2020, 3, 191-200.	13.1	105
481	A Fully Integrated Sensor-Brain Machine Interface System for Restoring Somatosensation. <i>IEEE Sensors Journal</i> , 2021, 21, 4764-4775.	2.4	18
482	Electronic Skins for Healthcare Monitoring and Smart Prostheses. <i>Annual Review of Control, Robotics, and Autonomous Systems</i> , 2021, 4, 629-650.	7.5	12
483	Why Neurotechnologies? About the Purposes, Opportunities and Limitations of Neurotechnologies in Clinical Applications. <i>Neuroethics</i> , 2021, 14, 5-16.	1.7	17
484	Muscle-Synergy-Based Planning and Neural-Adaptive Control for a Prosthetic Arm. <i>IEEE Transactions on Artificial Intelligence</i> , 2021, 2, 424-436.	3.4	17
485	Prosthetic Feedback Systems. , 2021, , 147-167.		2
486	Connecting residual nervous system and prosthetic legs for sensorimotor and cognitive rehabilitation. , 2021, , 293-320.		4
487	Implantable Device Fabrication and Packaging. , 2021, , 1-49.		2
488	Intracortical microstimulation for tactile feedback in awake behaving rats. , 2021, , 379-411.		1
489	Restoring the sense of touch with electrical stimulation of the nerve and brain. , 2021, , 349-378.		2
490	Neural electrodes for long-term tissue interfaces. , 2021, , 509-536.		2
491	Touch restoration through electrical cortical stimulation in humans. , 2021, , 443-478.		2
492	Introduction to somatosensory neuroprostheses. , 2021, , 3-40.		7
493	Discriminability of multiple cutaneous and proprioceptive hand percepts evoked by intraneural stimulation with Utah slanted electrode arrays in human amputees. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2021, 18, 12.	2.4	16

#	ARTICLE	IF	CITATIONS
494	A Computer-Brain Interface that Restores Lost Extremitiesâ€™ Touch and Movement Sensations. Springer Briefs in Electrical and Computer Engineering, 2021, , 65-73.	0.3	0
495	Online Closed-Loop Control Using Tactile Feedback Delivered Through Surface and Subdermal Electrotactile Stimulation. Frontiers in Neuroscience, 2021, 15, 580385.	1.4	0
496	A novel energy-motion model for continuous sEMG decoding: from muscle energy to motor pattern. Journal of Neural Engineering, 2021, 18, 016019.	1.8	4
497	The rubber hand illusion is a fallible method to study ownership of prosthetic limbs. Scientific Reports, 2021, 11, 4423.	1.6	10
498	Tactile Avatar: Tactile Sensing System Mimicking Human Tactile Cognition. Advanced Science, 2021, 8, 2002362.	5.6	27
499	A cutaneous mechanoneural interface for neuroprosthetic feedback. Nature Biomedical Engineering, 2022, 6, 731-740.	11.6	16
500	Restoration of bilateral motor coordination from preserved agonist-antagonist coupling in amputation musculature. Journal of NeuroEngineering and Rehabilitation, 2021, 18, 38.	2.4	2
501	Piezoresistive electronic skin based on diverse bionic microstructure. Sensors and Actuators A: Physical, 2021, 318, 112532.	2.0	17
502	Compliant peripheral nerve interfaces. Journal of Neural Engineering, 2021, 18, 031001.	1.8	33
504	A Psychometric Platform to Collect Somatosensory Sensations for Neuroprosthetic Use. Frontiers in Medical Technology, 2021, 3, 619280.	1.3	13
505	A multi-channel peripheral nerve stimulator with integrate-and-fire encoding. Journal of Medical Engineering and Technology, 2021, 45, 187-196.	0.8	0
506	Bioelectronic medicine for the autonomic nervous system: clinical applications and perspectives. Journal of Neural Engineering, 2021, 18, 041002.	1.8	37
507	Robotic Assessment of Wrist Proprioception During Kinaesthetic Perturbations: A Neuroergonomic Approach. Frontiers in Neurorobotics, 2021, 15, 640551.	1.6	3
508	Durable and Fatigueâ€Resistant Soft Peripheral Neuroprosthetics for In Vivo Bidirectional Signaling. Advanced Materials, 2021, 33, e2007346.	11.1	37
509	Extended home use of an advanced osseointegrated prosthetic arm improves function, performance, and control efficiency. Journal of Neural Engineering, 2021, 18, 026020.	1.8	17
510	Foreign Body Reaction to Implanted Biomaterials and Its Impact in Nerve Neuroprosthetics. Frontiers in Bioengineering and Biotechnology, 2021, 9, 622524.	2.0	161
511	Computational approaches to decode grasping force and velocity level in upper-limb amputee from intraneural peripheral signals. Journal of Neural Engineering, 2021, 18, 055001.	1.8	12
512	Sensory feedback for limb prostheses in amputees. Nature Materials, 2021, 20, 925-939.	13.3	121

#	ARTICLE	IF	CITATIONS
513	Current Solutions and Future Trends for Robotic Prosthetic Hands. Annual Review of Control, Robotics, and Autonomous Systems, 2021, 4, 595-627.	7.5	46
514	Toward higher-performance bionic limbs for wider clinical use. Nature Biomedical Engineering, 2023, 7, 473-485.	11.6	104
515	Classification of directionally specific vagus nerve activity using an upper airway obstruction model in anesthetized rodents. Scientific Reports, 2021, 11, 10682.	1.6	3
516	Both high fat and high carbohydrate diets impair vagus nerve signaling of satiety. Scientific Reports, 2021, 11, 10394.	1.6	15
518	Computational model of the dorsal horn circuitry for innocuous touch. , 2021, , .		0
519	Putting touch into action. Science, 2021, 372, 791-792.	6.0	1
520	Attention Enhancement for Exoskeleton-Assisted Hand Rehabilitation Using Fingertip Haptic Stimulation. Frontiers in Robotics and AI, 2021, 8, 602091.	2.0	14
521	Biomedical and Tissue Engineering Strategies to Control Foreign Body Reaction to Invasive Neural Electrodes. Frontiers in Bioengineering and Biotechnology, 2021, 9, 659033.	2.0	19
522	A scalable algorithm based on spike train distance to select stimulation patterns for sensory feedback. , 2021, , .		1
523	Flexible Electrodes for In Vivo and In Vitro Electrophysiological Signal Recording. Advanced Healthcare Materials, 2021, 10, e2100646.	3.9	62
524	A brain-computer interface that evokes tactile sensations improves robotic arm control. Science, 2021, 372, 831-836.	6.0	245
525	Exploring the Use of Brain-Computer Interfaces in Stroke Neurorehabilitation. BioMed Research International, 2021, 2021, 1-11.	0.9	23
526	Reward boosts reinforcement-based motor learning. IScience, 2021, 24, 102821.	1.9	23
527	Evaluation of Phantom Finger Sensation Evoked by Electrical Stimulation for Transradial Amputee: A Case Study. , 2021, , .		1
528	The Need to Work Arm in Arm: Calling for Collaboration in Delivering Neuroprosthetic Limb Replacements. Frontiers in Neurorobotics, 2021, 15, 711028.	1.6	3
529	A Versatile Hermetically Sealed Microelectronic Implant for Peripheral Nerve Stimulation Applications. Frontiers in Neuroscience, 2021, 15, 681021.	1.4	4
530	A machine learning framework to optimize optic nerve electrical stimulation for vision restoration. Patterns, 2021, 2, 100286.	3.1	6
531	CT Assessment of Intraorbital Cable Movement of Electronic Subretinal Prosthesis in Three Different Surgical Approaches. Translational Vision Science and Technology, 2021, 10, 16.	1.1	3

#	ARTICLE	IF	CITATIONS
532	A soft neuroprosthetic hand providing simultaneous myoelectric control and tactile feedback. <i>Nature Biomedical Engineering</i> , 2023, 7, 589-598.	11.6	169
533	A modular strategy for next-generation upper-limb sensory-motor neuroprostheses. <i>Med</i> , 2021, 2, 912-937.	2.2	16
534	Brain network modulation in transradial amputee with finger perception restored through biomimetic intraneural stimulation. <i>Neurological Sciences</i> , 2021, 42, 5369-5372.	0.9	1
535	Magnetomicrometry. <i>Science Robotics</i> , 2021, 6, .	9.9	26
536	Neurorobotics for neurorehabilitation. <i>Science</i> , 2021, 373, 634-635.	6.0	19
537	Redundant Crossfire: A Technique to Achieve Super-Resolution in Neurostimulator Design by Exploiting Transistor Mismatch. <i>IEEE Journal of Solid-State Circuits</i> , 2021, 56, 2452-2465.	3.5	8
538	Contribution of interaction force to the sense of hand ownership and the sense of hand agency. <i>Scientific Reports</i> , 2021, 11, 18069.	1.6	3
539	Electrotactile feedback outweighs natural feedback in sensory integration during control of grasp force. <i>Journal of Neural Engineering</i> , 2021, 18, 056024.	1.8	11
540	MorphoSONIC: A morphologically structured intramembrane cavitation model reveals fiber-specific neuromodulation by ultrasound. <i>IScience</i> , 2021, 24, 103085.	1.9	5
541	The design principles of discrete turing patterning systems. <i>Journal of Theoretical Biology</i> , 2021, 531, 110901.	0.8	4
542	Optimizing Neuroprosthetic Therapies via Autonomous Learning Agents. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
543	Biomimetic bidirectional hand neuroprostheses for restoring somatosensory and motor functions. , 2021, , 321-345.		0
544	Development of multi-degree-of-freedom hand prosthesis cover with sensory recognition. <i>Journal of Biomechanical Science and Engineering</i> , 2021, 16, 21-00076-21-00076.	0.1	0
545	Bioinspired Prosthetic Interfaces. <i>Advanced Materials Technologies</i> , 2020, 5, 1900856.	3.0	42
546	Artificial Limbs for Upper Extremity Amputation. , 2015, , 609-619.		1
548	Using a BCI Prosthetic Hand to Control Phantom Limb Pain. <i>Springer Briefs in Electrical and Computer Engineering</i> , 2019, , 43-52.	0.3	5
549	Cognitive and Physiological Intent for the Adaptation of Motor Prostheses. , 2020, , 123-153.		1
550	On Biocompatibility and Stability of Transversal Intrafascicular Multichannel Electrodesâ€™TIME. <i>Biosystems and Biorobotics</i> , 2017, , 731-735.	0.2	5

#	ARTICLE	IF	CITATIONS
551	Entropy-based Axon-to-Axon Mutual Interaction Characterization via Iterative Learning Identification. IFMBE Proceedings, 2018, , 691-694.	0.2	7
552	Realizing Efficient EMG-Based Prosthetic Control Strategy. Advances in Experimental Medicine and Biology, 2019, 1101, 149-166.	0.8	9
553	Psychophysical principles of discrete event-driven vibrotactile feedback for prostheses. Somatosensory & Motor Research, 2020, 37, 186-203.	0.4	7
554	Electro-cutaneous stimulation on the palm elicits referred sensations on intact but not on amputated digits. Journal of Neural Engineering, 2018, 15, 016003.	1.8	13
555	Q-PINE: A quick to implant peripheral intraneural electrode. Journal of Neural Engineering, 2020, 17, 066008.	1.8	14
556	Reinventing Extremity Amputation in the Era of Functional Limb Restoration. Annals of Surgery, 2021, 273, 269-279.	2.1	36
563	A skin-inspired tactile sensor for smart prosthetics. Science Robotics, 2018, 3, .	9.9	195
564	Neurophysiological makers of plastic brain reorganizazion following central and peripheral lesions. Archives Italiennes De Biologie, 2015, 152, 216-38.	0.1	4
565	Autonomous Optimization of Targeted Stimulation of Neuronal Networks. PLoS Computational Biology, 2016, 12, e1005054.	1.5	17
566	Anatomical Network Comparison of Human Upper and Lower, Newborn and Adult, and Normal and Abnormal Limbs, with Notes on Development, Pathology and Limb Serial Homology vs. Homoplasmy. PLoS ONE, 2015, 10, e0140030.	1.1	28
567	Technical Features and Functionalities of Myo Armband: An Overview on Related Literature and Advanced Applications of Myoelectric Armbands Mainly Focused on Arm Prostheses. International Journal on Smart Sensing and Intelligent Systems, 2018, 11, 1-25.	0.4	60
568	Natural Sensations Evoked in Distal Extremities Using Surface Electrical Stimulation. Open Biomedical Engineering Journal, 2018, 12, 1-15.	0.7	11
569	Is Wearable Technology Becoming Part of Us? Developing and Validating a Measurement Scale for Wearable Technology Embodiment. JMIR MHealth and UHealth, 2019, 7, e12771.	1.8	13
570	The Connection Between the Nervous System and Machines: Commentary. Journal of Medical Internet Research, 2019, 21, e16344.	2.1	7
571	From Novel Technology to Novel Applications: Comment on "An Integrated Brain-Machine Interface Platform With Thousands of Channels" by Elon Musk and Neuralink. Journal of Medical Internet Research, 2019, 21, e16356.	2.1	41
572	Embodiment of Wearable Technology: Qualitative Longitudinal Study. JMIR MHealth and UHealth, 2020, 8, e16973.	1.8	8
573	Dance improves symptoms, functional mobility and fine manual dexterity in people with Parkinson disease: a quasi-experimental controlled efficacy study. European Journal of Physical and Rehabilitation Medicine, 2020, 56, 563-574.	1.1	19
574	Sensory Feedback in Upper Limb Prostheses. Proceedings of the Latvian Academy of Sciences, 2020, 74, 308-317.	0.0	3

#	ARTICLE	IF	CITATIONS
575	Optimizing the neuron-electrode interface for chronic bioelectronic interfacing. Neurosurgical Focus, 2020, 49, E7.	1.0	8
576	Advancements in the mind-machine interface: towards re-establishment of direct cortical control of limb movement in spinal cord injury. Neural Regeneration Research, 2016, 11, 1060.	1.6	3
577	Reframing HRI Education: A Dialogic Reformulation of HRI Education to Promote Diverse Thinking and Scientific Progress. Journal of Human-robot Interaction, 2017, 6, 3.	2.0	5
578	Intraneural stimulation elicits discrimination of textural features by artificial fingertip in intact and amputee humans. ELife, 2016, 5, e09148.	2.8	286
579	Sensory restoration by epidural stimulation of the lateral spinal cord in upper-limb amputees. ELife, 2020, 9, .	2.8	70
580	The neural resource allocation problem when enhancing human bodies with extra robotic limbs. Nature Machine Intelligence, 2021, 3, 850-860.	8.3	34
581	Sensory Percepts Elicited by Chronic Macro-Sieve Electrode Stimulation of the Rat Sciatic Nerve. Frontiers in Neuroscience, 2021, 15, 758427.	1.4	1
582	Brain-Machine Interface: Overview. , 2014, , 1-10.		1
583	Development of Vibrotactile Sensory Feedback for Prosthetic Hand Users. , 2014, , .		1
584	Sur la possibilit�� d'�� une conception pluraliste et active de l'exp��rience tactile. Philonsorbonne, 2015, , 9-31.	0.1	1
587	Bionics: Creating the Twenty-Four Million Dollar Man or Woman. Science and Fiction, 2016, , 467-505.	0.0	0
588	Medical Robotics. , 2015, , 3-35.		0
589	Advance in Rehabilitative Intuitive Robotics. Journal of Applied Biotechnology & Bioengineering, 2016, 1, .	0.0	0
590	VARIABLE STIFFNESS HAND PROSTHESIS: A SYSTEMATIC REVIEW. Investigacion & Desarrollo, 2017, 17, 99-108.	0.3	2
594	Hybrid and Fast: A Novel in Silico Approach with Reduced Computational Cost to Predict Failures of in Vivo Needle-Based implantations. Biosystems and Biorobotics, 2019, , 127-131.	0.2	0
595	Development of an Intraneural Peripheral Stimulation Paradigm for the Restoration of Fine Hand Control in Non-human Primates. Biosystems and Biorobotics, 2019, , 112-116.	0.2	0
603	Learning from the Human Hand: Force Control and Perception Using a Soft-Synergy Prosthetic Hand and Noninvasive Haptic Feedback. , 2020, , 53-69.		0
605	New Stimulation Device to Drive Multiple Transverse Intrafascicular Electrodes and Achieve Highly Selective and Rich Neural Responses. Sensors, 2021, 21, 7219.	2.1	6

#	ARTICLE	IF	CITATIONS
606	Intrafascicular peripheral nerve stimulation produces fine functional hand movements in primates. <i>Science Translational Medicine</i> , 2021, 13, eabg6463.	5.8	30
607	Electroceuticals for neural regenerative nanomedicine. , 2020, , 213-257.		2
608	Brain-Machine Interface: Overview. , 2021, , 1-8.		1
609	Role of Brain Cortex Plasticity in the Use of Neural Interfaces. <i>Human Physiology</i> , 2020, 46, 752-759.	0.1	0
610	Object Recognition via Evoked Sensory Feedback during Control of a Prosthetic Hand. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 207-214.	3.3	13
611	Wenn Technik den Nerv trifft – Strom für elektronische Pillen und fehlende Prothesen. , 2020, , 141-158.		0
612	Flexible and Stretchable Sensor Arrays. , 2020, , 275-294.		0
613	Sensory stimulation enhances phantom limb perception and movement decoding. <i>Journal of Neural Engineering</i> , 2020, 17, 056006.	1.8	14
615	Robotics in Healthcare. <i>Intelligent Systems Reference Library</i> , 2022, , 281-306.	1.0	19
616	A decade retrospective of medical robotics research from 2010 to 2020. <i>Science Robotics</i> , 2021, 6, eabi8017.	9.9	158
617	Controlling Clinical States Governed by Different Temporal Dynamics With Closed-Loop Deep Brain Stimulation: A Principled Framework. <i>Frontiers in Neuroscience</i> , 2021, 15, 734186.	1.4	20
619	A Microclip Peripheral Nerve Interface (µcPNI) for Bioelectronic Interfacing with Small Nerves. <i>Advanced Science</i> , 2022, 9, e2102945.	5.6	6
620	Towards a Quanto-Qualitative Biological Engineering: The Case of the Neuroprosthetic Hand. , 2021, , 195-211.		2
621	Closed-loop control of a prosthetic finger via evoked proprioceptive information. <i>Journal of Neural Engineering</i> , 2021, 18, 066029.	1.8	7
623	A Miniaturised Neuromorphic Tactile Sensor integrated with an Anthropomorphic Robot Hand. , 2020, , .		5
624	Compensating for Electrode Contact Failures in Chronic Selective Nerve Cuff Recordings: A Simulation Study. , 2020, , .		0
625	Mechanism of peripheral nerve modulation and recent applications. <i>International Journal of Optomechatronics</i> , 2021, 15, 182-198.	3.3	8
626	Frequency Shapes the Quality of Tactile Percepts Evoked through Electrical Stimulation of the Nerves. <i>Journal of Neuroscience</i> , 2022, 42, 2052-2064.	1.7	20

#	ARTICLE	IF	CITATIONS
627	General principles of brain electromagnetic rhythmic oscillations and implications for neuroplasticity. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2022, 184, 221-237.	1.0	0
628	Sensorimotor integration within the primary motor cortex by selective nerve fascicle stimulation. Journal of Physiology, 2022, 600, 1497-1514.	1.3	6
629	Towards optimizing the non-invasive sensory feedback interfaces in a neural prosthetic control. Journal of Neural Engineering, 2022, 19, 016028.	1.8	6
630	A review of haptic feedback through peripheral nerve stimulation for upper extremity prosthetics. Current Opinion in Biomedical Engineering, 2022, 21, 100368.	1.8	11
631	Intrinsic somatosensory feedback supports motor control and learning to operate artificial body parts. Journal of Neural Engineering, 2022, 19, 016006.	1.8	6
632	Electrodermal stimulation variant analysis for optimum perception in somatosensory feedback protocols. Research on Biomedical Engineering, 2022, 38, 451-463.	1.5	1
633	Bidirectional bionic limbs: a perspective bridging technology and physiology. Journal of Neural Engineering, 2022, 19, 013001.	1.8	7
634	Workshops of the eighth international brain-computer interface meeting: BCIs: the next frontier. Brain-Computer Interfaces, 2022, 9, 69-101.	0.9	4
638	The Power of CAD/CAM Laser Bioprinting at the Single-Cell Level: Evolution of Printing. , 2022, , 93-121.		0
639	Sensory Feedback for Upper-Limb Prostheses: Opportunities and Barriers. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 738-747.	2.7	7
640	How Fast Is Too Fast? Boundaries to the Perception of Electrical Stimulation of Peripheral Nerves. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 782-788.	2.7	0
642	A 28 nm Bulk CMOS Fully Digital BPSK Demodulator for US-Powered IMDs Downlink Communications. Electronics (Switzerland), 2022, 11, 698.	1.8	5
644	An optoelectronic neural interface approach for precise superposition of optical and electrical stimulation in flexible array structures. Biosensors and Bioelectronics, 2022, 205, 114090.	5.3	3
645	Bayesian optimization of peripheral intraneural stimulation protocols to evoke distal limb movements. Journal of Neural Engineering, 2021, 18, 066046.	1.8	9
646	The Use of the Velocity Selective Recording Technique to Reveal the Excitation Properties of the Ulnar Nerve in Pigs. Sensors, 2022, 22, 58.	2.1	6
648	Toward a Wireless Wearable System for Bidirectional Human-Machine Interface With Gesture Recognition and Vibration Feedback. IEEE Sensors Journal, 2022, 22, 9462-9472.	2.4	2
650	Restoration of Proprioceptive and Cutaneous Sensation Using Regenerative Peripheral Nerve Interfaces in Humans with Upper Limb Amputations. Plastic and Reconstructive Surgery, 2022, 149, 1149e-1154e.	0.7	11
651	Flexible microstructured pressure sensors: design, fabrication and applications. Nanotechnology, 2022, 33, 322002.	1.3	27

#	ARTICLE	IF	CITATIONS
664	Polysaccharide Layer-by-Layer Coating for Polyimide-Based Neural Interfaces. <i>Micromachines</i> , 2022, 13, 692.	1.4	2
665	Fast and Accurate Hand Visual Detection by Using a Spatial-Channel Attention SSD for Hand-Based Space Robot Teleoperation. <i>International Journal of Aerospace Engineering</i> , 2022, 2022, 1-11.	0.5	3
666	Osseointegrated Metallic Implants for Finger Amputees: A Review of the Literature. <i>Orthopaedic Surgery</i> , 2022, 14, 1019-1033.	0.7	4
667	Bionic Prostheses: The Emerging Alternative to Vascularised Composite Allotransplantation of the Limb. <i>Frontiers in Surgery</i> , 2022, 9, .	0.6	0
668	The Role of Neuroergonomics in the Design of Personalized Prosthesis: Deepening the Centrality of Human Being. <i>Frontiers in Neurobotics</i> , 2022, 16, .	1.6	1
669	Psychophysical Evaluation of Proprioceptive Feedback Through a Probe Sliding on the Forearm Skin of Healthy Humans. <i>Annals of Biomedical Engineering</i> , 2022, 50, 991-1000.	1.3	1
670	Artificial Neural Pathway Based on a Memristor Synapse for Optically Mediated Motion Learning. <i>ACS Nano</i> , 2022, 16, 9691-9700.	7.3	47
671	Preliminary Evaluation of the Effect of Mechanotactile Feedback Location on Myoelectric Prosthesis Performance Using a Sensorized Prosthetic Hand. <i>Sensors</i> , 2022, 22, 3892.	2.1	5
672	An electroencephalography-based human-machine interface combined with contralateral C7 transfer in the treatment of brachial plexus injury. <i>Neural Regeneration Research</i> , 2022, 17, 2600.	1.6	4
673	Effects of stimulus pulse rate on somatosensory adaptation in the human cortex. <i>Brain Stimulation</i> , 2022, 15, 987-995.	0.7	14
675	Smart sensing and actuators for people with hand motion impairment. , 2022, , 241-259.		0
676	EEG Features of Evoked Tactile Sensation: Two Cases Study. <i>Frontiers in Human Neuroscience</i> , 0, 16, .	1.0	2
677	Body Temperature Enhanced Adhesive, Antibacterial, and Recyclable Ionic Hydrogel for Epidermal Electrophysiological Monitoring. <i>Advanced Healthcare Materials</i> , 2022, 11, .	3.9	29
678	Opinions on noninvasive sensory feedback of upper limb prosthetic users. <i>Prosthetics and Orthotics International</i> , 2022, Publish Ahead of Print, .	0.5	0
679	Spatio-temporal feature extraction in sensory electroneurographic signals. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022, 380, .	1.6	4
680	Brain-Machine Interface: Overview. , 2022, , 12-19.		0
681	Data Driven Symbiotic Machine Learning for the Identification of Motion-Based Action Potentials. , 2022, , 548-567.		0
682	Tutorial: a guide to techniques for analysing recordings from the peripheral nervous system. <i>Journal of Neural Engineering</i> , 2022, 19, 042001.	1.8	6

#	ARTICLE	IF	CITATIONS
683	Combined spatial and frequency encoding for electrotactile feedback of myoelectric signals. <i>Experimental Brain Research</i> , 0, , .	0.7	1
686	Artificial referred sensation in upper and lower limb prosthesis users: a systematic review. <i>Journal of Neural Engineering</i> , 2022, 19, 051001.	1.8	4
687	Organic Neuroelectronics: From Neural Interfaces to Neuroprosthetics. <i>Advanced Materials</i> , 2022, 34, .	11.1	28
688	Optimally-calibrated non-invasive feedback improves amputeesâ€™ metabolic consumption, balance and walking confidence. <i>Journal of Neural Engineering</i> , 2022, 19, 046049.	1.8	10
689	Neural dynamics of illusory tactile pulling sensations. <i>IScience</i> , 2022, 25, 105018.	1.9	0
690	Embodiment of a virtual prosthesis through training using an EMG-based human-machine interface: Case series. <i>Frontiers in Human Neuroscience</i> , 0, 16, .	1.0	2
691	Femtosecond laser hierarchical surface restructuring for next generation neural interfacing electrodes and microelectrode arrays. <i>Scientific Reports</i> , 2022, 12, .	1.6	4
692	Resembled Tactile Feedback for Object Recognition Using a Prosthetic Hand. <i>IEEE Robotics and Automation Letters</i> , 2022, 7, 10977-10984.	3.3	5
693	A Preliminary Tactile Conduction Model Based on Neural Electrical Properties Analysis. <i>Lecture Notes in Computer Science</i> , 2022, , 796-807.	1.0	0
694	Human to Robot Hand Motion Mapping Methods: Review and Classification. <i>IEEE Transactions on Robotics</i> , 2023, 39, 842-861.	7.3	1
695	Brain-Machine Interfaces for Upper and Lower Limb Prostheses. , 2022, , 1-45.		0
696	Somatosensory Neuromodulation with a Focus Towards Clinical Systems. , 2022, , 1-55.		0
697	A comparison of extraneural approaches for selective recording in the peripheral nervous system. , 2022, , .		2
698	Peripheral neurostimulation for encoding artificial somatosensations. <i>European Journal of Neuroscience</i> , 2022, 56, 5888-5901.	1.2	5
700	EEG-based functional connectivity for tactile roughness discrimination. <i>Cognitive Neurodynamics</i> , 2023, 17, 921-940.	2.3	1
701	Bioelectronic medicine: Preclinical insights and clinical advances. <i>Neuron</i> , 2022, 110, 3627-3644.	3.8	28
702	Clinical neuroscience and neurotechnology: An amazing symbiosis. <i>IScience</i> , 2022, 25, 105124.	1.9	3
703	Electrical Stimulation of Distal Tibial Nerve During Stance Phase of Walking May Reverse Effects of Unilateral Paw Pad Anesthesia in the Cat. <i>Motor Control</i> , 2023, 27, 71-95.	0.3	1

#	ARTICLE	IF	CITATIONS
704	Closed-loop stimulation of lateral cervical spinal cord in upper-limb amputees to enable sensory discrimination: a case study. <i>Scientific Reports</i> , 2022, 12, .	1.6	7
706	In-vivo recording of sensory signals from peripheral nerves using flexible 3D neural electrodes. <i>Micro and Nano Systems Letters</i> , 2022, 10, .	1.7	0
707	BCI-Based Neuroprostheses and Physiotherapies for Stroke Motor Rehabilitation. , 2022, , 509-524.		0
708	A review on the active thermal management researches of epidermal electronic devices. <i>AIP Advances</i> , 2022, 12, .	0.6	2
710	Design and Experimental Evaluation of a Sensorimotor-Inspired Grasping Strategy for Dexterous Prosthetic Hands. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2023, 31, 738-748.	2.7	1
711	Study of Tactile Sensation Somatotopy and Homology Between Projected Fingers in Residual Limb and Natural Fingers in Intact Limb. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2023, 31, 636-645.	2.7	1
712	Lower Limb Exoskeleton Sensors: State-of-the-Art. <i>Sensors</i> , 2022, 22, 9091.	2.1	6
713	Evaluation of the effects of focused ultrasound stimulation on the central nervous system through a multiscale simulation approach. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	2.0	0
714	Neural evidence for functional roles of tactile and visual feedback in the application of myoelectric prosthesis. <i>Journal of Neural Engineering</i> , 2023, 20, 016038.	1.8	1
715	Active upper limb prostheses: a review on current state and upcoming breakthroughs. <i>Progress in Biomedical Engineering</i> , 2023, 5, 012001.	2.8	17
716	Measuring embodiment: A review of methods for prosthetic devices. <i>Frontiers in Neurorobotics</i> , 0, 16, .	1.6	7
717	A flexible protruding microelectrode array for neural interfacing in bioelectronic medicine. <i>Microsystems and Nanoengineering</i> , 2022, 8, .	3.4	11
718	Identifying Health-Related Quality of Life Domains after Upper Extremity Transplantation. <i>Archives of Physical Medicine and Rehabilitation</i> , 2023, , .	0.5	1
719	The experience of sensorimotor integration of a lower limb sensory neuroprosthesis: A qualitative case study. <i>Frontiers in Human Neuroscience</i> , 0, 16, .	1.0	5
720	Neuroprosthetics: from sensorimotor to cognitive disorders. <i>Communications Biology</i> , 2023, 6, .	2.0	19
721	Benchtop and bedside validation of a low-cost programmable cortical stimulator in a testbed for bi-directional brain-computer-interface research. <i>Frontiers in Neuroscience</i> , 0, 16, .	1.4	4
722	Modulating Brain Activity with Invasive Brain-Computer Interface: A Narrative Review. <i>Brain Sciences</i> , 2023, 13, 134.	1.1	6
723	Emerging Bio-Interfacing Wearable Devices for Signal Monitoring: Overview of the Mechanisms and Diverse Sensor Designs to Target Distinct Physiological Bio-Parameters. , 2023, 2, .		5

#	ARTICLE	IF	CITATIONS
724	EEG Feature in Amputee with Five Projected Fingers: A Comparison Study. , 2022, , .		0
726	Implantable Device Fabrication and Packaging. , 2023, , 289-337.		1
727	Peripheral Neural Interfaces (PNIs) for Decoding Motor Intentions and Encoding Somatosensations in Upper-Limb Amputees. , 2023, , 903-925.		0
728	Optical Nanofiber Skins for Multifunctional Humanoid Tactility. Advanced Intelligent Systems, 2023, 5, .	3.3	12
729	Somatosensory Neuromodulation with a Focus Towards Clinical Systems. , 2023, , 3297-3351.		0
730	Vascular and Neural Response to Focal Vibration, Sensory Feedback, and Piezo Ion Channel Signaling. , 2023, 2, 42-90.		0
731	Non-rectangular neurostimulation waveforms elicit varied sensation quality and perceptive fields on the hand. Scientific Reports, 2023, 13, .	1.6	7
732	Neuromorphic Tactile Sensing and Encoding. , 2023, , 1609-1634.		0
733	Neuroprosthesis and Functional Electrical Stimulation (Peripheral). , 2023, , 1777-1816.		0
734	Modeling of the Peripheral Nerve to Investigate Advanced Neural Stimulation (Sensory Neural) Tj ETQq1 1 0.784314 rgBT /Overlock 107		0
735	Biorealistic hand prosthesis with compliance control and noninvasive somatotopic sensory feedback. Progress in Biomedical Engineering, 2023, 5, 023001.	2.8	2
736	Prosthetics and Innovation. , 2022, , 421-435.		0
737	Reshaping the full body illusion through visuo-electro-tactile sensations. PLoS ONE, 2023, 18, e0280628.	1.1	4
738	Dermal Sensory Regenerative Peripheral Nerve Interface for Reestablishing Sensory Nerve Feedback in Peripheral Afferents in the Rat. Plastic and Reconstructive Surgery, 2023, 151, 804e-813e.	0.7	6
739	Brain-Machine Interfaces for Upper and Lower Limb Prostheses. , 2023, , 1091-1135.		0
741	Real-time vibrotactile pattern generation and identification using discrete event-driven feedback. Somatosensory & Motor Research, 0, , 1-13.	0.4	0
742	Symbiotic electroneural and musculoskeletal framework to encode proprioception via neurostimulation: ProprioStim. IScience, 2023, 26, 106248.	1.9	8
744	Neural Plasticity in Sensorimotor Brain-Machine Interfaces. Annual Review of Biomedical Engineering, 2023, 25, 51-76.	5.7	2

#	ARTICLE	IF	CITATIONS
745	Hierarchical Bonding Yield Test Structure for Flexible High Channel-Count Neural Probes Interfacing ASIC Chips. , 2023, , .		2
746	Flexible and smart electronics for single-cell resolved brain-machine interfaces. Applied Physics Reviews, 2023, 10, .	5.5	1
747	Dynamic peripheral nerve stimulation can produce cortical activation similar to punctate mechanical stimuli. Frontiers in Human Neuroscience, 0, 17, .	1.0	2
748	Recalibration of neuromodulation parameters in neural implants with adaptive Bayesian optimization. Journal of Neural Engineering, 2023, 20, 026037.	1.8	5
749	Autonomous optimization of neuroprosthetic stimulation parameters that drive the motor cortex and spinal cord outputs in rats and monkeys. Cell Reports Medicine, 2023, 4, 101008.	3.3	6
751	Reconstruction of nerve functional topography using recruitment curves enables selective electrical stimulation. , 2023, , .		0
752	On the in vitro long-term stability of thin-film stimulation contacts in polyimide-based neural interfaces. , 2023, , .		0
763	Classification of Sensory Neural Signals through Deep Learning Methods. , 2023, , .		0
767	Virtual reality, augmented reality technologies, and rehabilitation. , 2023, , 111-134.		0
772	Neural encoding of artificial sensations evoked by peripheral nerve stimulation for neuroprosthetic applications. , 2023, , 237-265.		0
783	A Microcontroller-Based Portable Transcutaneous Electrical Nerve Stimulator via Ultra-comfortable Tattoo Electrodes for Haptic Feedback. Lecture Notes in Electrical Engineering, 2024, , 385-395.	0.3	0
793	Biofeedback Analysis in Upper Limb Prostheses: A Literature Review. IFMBE Proceedings, 2024, , 102-110.	0.2	0
795	Design Methodology for Energy-constrained AI Edge Inference in Implantable Medical Devices. , 2023, , .		0
799	High-fidelity interfacing for bionic rehabilitation. , 2024, , 213-260.		0