

# Novel Dry Polymer Foam Electrodes for Long-Term EEC

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Citation Report

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Cognition in action: imaging brain/body dynamics in mobile humans. <i>Reviews in the Neurosciences</i> , 2011, 22, 593-608.  | 1.4  | 217       |
| 2  | Design, Fabrication and Experimental Validation of a Novel Dry-Contact Sensor for Measuring Electroencephalography Signals without Skin Preparation. <i>Sensors</i> , 2011, 11, 5819-5834.     | 2.1  | 241       |
| 3  | Conductive Polymer Foam Surface Improves the Performance of a Capacitive EEG Electrode. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 3422-3431.                              | 2.5  | 43        |
| 4  | Measuring Steady-State Visual Evoked Potentials from non-hair-bearing areas. , 2012, 2012, 1806-9.   |      | 19        |
| 5  | A Non-Adhesive Solid-Gel Electrode for a Non-Invasive Brain-Computer Interface. <i>Frontiers in Neurology</i> , 2012, 3, 114.  | 1.1  | 39        |
| 6  | Multifunctional Skin-Like Electronics for Long-Term Health Monitoring. , 2012, , .   |      | 0         |
| 7  | Biosensor Technologies for Augmented Brain-Computer Interfaces in the Next Decades. <i>Proceedings of the IEEE</i> , 2012, 100, 1553-1566.   | 16.4 | 121       |
| 8  | How about taking a low-cost, small, and wireless EEG for a walk?. <i>Psychophysiology</i> , 2012, 49, 1617-1621.   | 1.2  | 455       |
| 9  | Improving electrochemical performance of flexible thin film electrodes with micropillar array structures. <i>Measurement Science and Technology</i> , 2012, 23, 125701.                        | 1.4  | 25        |
| 10 | Cell-phone based Drowsiness Monitoring and Management system. , 2012, , .  |      | 8         |
| 11 | Investigations of capacitively-coupled EEG electrode for use in brain-computer interface. , 2012, , .  |      | 2         |
| 12 | PDMS-Based Low Cost Flexible Dry Electrode for Long-Term EEG Measurement. <i>IEEE Sensors Journal</i> , 2012, 12, 2898-2904.   | 2.4  | 87        |
| 13 | Preliminary technological assessment of microneedles-based dry electrodes for biopotential monitoring in clinical examinations. <i>Sensors and Actuators A: Physical</i> , 2012, 180, 177-186. | 2.0  | 80        |
| 14 | Co-modulatory spectral changes in independent brain processes are correlated with task performance. <i>NeuroImage</i> , 2012, 62, 1469-1477.   | 2.1  | 59        |
| 15 | Design of the multi-channel electroencephalography-based brain-computer interface with novel dry sensors. , 2012, 2012, 1793-7.  |      | 3         |
| 16 | Textile Electrodes for EEG Recording – A Pilot Study. <i>Sensors</i> , 2012, 12, 16907-16919.  | 2.1  | 119       |
| 17 | Gaming control using a wearable and wireless EEG-based brain-computer interface device with novel dry foam-based sensors. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2012, 9, 5.  | 2.4  | 191       |
| 18 | Dry and Noncontact EEG Sensors for Mobile Brain-Computer Interfaces. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 228-235.                            | 2.7  | 288       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | Development of Novel Non-Contact Electrodes for Mobile Electrocardiogram Monitoring System. IEEE Journal of Translational Engineering in Health and Medicine, 2013, 1, 1-8.             | 2.2  | 45        |
| 20 | EEG-Based Learning System for Online Motion Sickness Level Estimation in a Dynamic Vehicle Environment. IEEE Transactions on Neural Networks and Learning Systems, 2013, 24, 1689-1700. | 7.2  | 99        |
| 21 | EEG-Based Brain-Computer Interfaces: A Thorough Literature Survey. International Journal of Human-Computer Interaction, 2013, 29, 814-826.  | 3.3  | 193       |
| 22 | A capacitive, biocompatible and adhesive electrode for long-term and cap-free monitoring of EEG signals. Journal of Neural Engineering, 2013, 10, 036006.                               | 1.8  | 36        |
| 23 | Brain and Health Informatics. Lecture Notes in Computer Science, 2013, , .  | 1.0  | 2         |
| 24 | Real-time assessment of vigilance level using an innovative Mindo4 wireless EEG system. , 2013, , .   |      | 3         |
| 25 | A Wearable Bio-potential Monitor System with Capacitive Coupling Electrode. , 2013, , .   |      | 1         |
| 26 | A MEMS-based pyramid micro-needle electrode for long-term EEG measurement. Microsystem Technologies, 2013, 19, 269-276.   | 1.2  | 42        |
| 27 | Developing a wearable real-world neuroimaging system to study stress. , 2013, , .   |      | 2         |
| 28 | New disposable forehead electrode set with excellent signal quality and imaging compatibility. Journal of Neuroscience Methods, 2013, 215, 103-109.                                     | 1.3  | 24        |
| 29 | Fabrication and impedance measurement of novel metal dry bioelectrode. Sensors and Actuators A: Physical, 2013, 201, 127-133.   | 2.0  | 51        |
| 30 | Multifunctional Epidermal Electronics Printed Directly Onto the Skin. Advanced Materials, 2013, 25, 2773-2778.  | 11.1 | 714       |
| 31 | Real-Time Vigilance Estimation Using Mobile Wireless Mindo EEG Device with Spring-Loaded Sensors. Lecture Notes in Computer Science, 2013, , 450-458.                                   | 1.0  | 1         |
| 32 | Comparison of pre-amplifier topologies for use in brain-computer interface with capacitively-coupled EEG electrodes. Biomedical Engineering Letters, 2013, 3, 158-169.                  | 2.1  | 12        |
| 33 | BCILAB: a platform for brain-computer interface development. Journal of Neural Engineering, 2013, 10, 056014.   | 1.8  | 284       |
| 34 | Real-World Neuroimaging Technologies. IEEE Access, 2013, 1, 131-149.  | 2.6  | 82        |
| 35 | Dry electrodes for electrocardiography. Physiological Measurement, 2013, 34, R47-R69.   | 1.2  | 215       |
| 36 | Foundations of Augmented Cognition. Lecture Notes in Computer Science, 2013, , .  | 1.0  | 6         |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 37 | Automatic Sleep Stage Classification GUI with a Portable EEG Device. Communications in Computer and Information Science, 2013, , 613-617.  | 0.4 | 0         |
| 38 | A Practical Mobile Dry EEG System for Human Computer Interfaces. Lecture Notes in Computer Science, 2013, , 649-655.   | 1.0 | 35        |
| 39 | Novel flexible Dry multipin electrodes for EEG: Signal quality and interfacial impedance of Ti and TiN coatings. , 2013, 2013, 547-50.   |     | 5         |
| 40 | A Review on the Computational Methods for Emotional State Estimation from the Human EEG. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-13.   | 0.7 | 204       |
| 41 | Stable and Critical Gesture Recognition in Children and Pregnant Women by SVM Classification with FFT Features of Signals from Wearable Attires. Research Journal of Applied Sciences, Engineering and Technology, 2014, 7, 4917-4926. | 0.1 | 1         |
| 42 | Toward a new cognitive neuroscience: modeling natural brain dynamics. Frontiers in Human Neuroscience, 2014, 8, 444.   | 1.0 | 61        |
| 43 | Knowledge-based identification of sleep stages based on two forehead electroencephalogram channels. Frontiers in Neuroscience, 2014, 8, 263.   | 1.4 | 63        |
| 44 | Developing Barbed Microtip-Based Electrode Arrays for Biopotential Measurement. Sensors, 2014, 14, 12370-12386.  | 2.1 | 52        |
| 45 | Dry EEG Electrodes. Sensors, 2014, 14, 12847-12870.  | 2.1 | 298       |
| 46 | Design, Fabrication, and Experimental Validation of Novel Flexible Silicon-Based Dry Sensors for Electroencephalography Signal Measurements. IEEE Journal of Translational Engineering in Health and Medicine, 2014, 2, 1-7.           | 2.2 | 17        |
| 47 | Committee report: Publication guidelines and recommendations for studies using electroencephalography and magnetoencephalography. Psychophysiology, 2014, 51, 1-21.  | 1.2 | 485       |
| 48 | Usability of four commercially-oriented EEG systems. Journal of Neural Engineering, 2014, 11, 046018.  | 1.8 | 155       |
| 49 | Impedance spectroscopy of changes in skin-electrode impedance induced by motion. BioMedical Engineering OnLine, 2014, 13, 149.   | 1.3 | 25        |
| 50 | Soft, Comfortable Polymer Dry Electrodes for High Quality ECG and EEG Recording. Sensors, 2014, 14, 23758-23780.   | 2.1 | 177       |
| 51 | Characteristics of skin-electrode impedance for a novel screw electrode. , 2014, 2014, 1-2.  |     | 5         |
| 52 | Smartphones as pocketable labs: Visions for mobile brain imaging and neurofeedback. International Journal of Psychophysiology, 2014, 91, 54-66.  | 0.5 | 61        |
| 53 | Liquid silicone rubber (LSR)-based dry bioelectrodes: The effect of surface micropillar structuring and silver coating on contact impedance. Sensors and Actuators A: Physical, 2014, 206, 22-29.                                      | 2.0 | 37        |
| 54 | Polydimethyl-siloxane film for biomimetic dry adhesive integrated with capacitive biopotentials sensing. Sensors and Actuators B: Chemical, 2014, 205, 168-175.  | 4.0 | 9         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | Development of PDMS-based flexible dry type SEMG electrodes by micromachining technologies. Applied Physics A: Materials Science and Processing, 2014, 116, 1395-1401.  | 1.1 | 10        |
| 56 | A Novel 16-Channel Wireless System for Electroencephalography Measurements With Dry Spring-Loaded Sensors. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 1545-1555.                                 | 2.4 | 56        |
| 57 | Novel wireless electroencephalography system with a minimal preparation time for use in emergencies and prehospital care. BioMedical Engineering OnLine, 2014, 13, 60.  | 1.3 | 22        |
| 58 | Imaging natural cognition in action. International Journal of Psychophysiology, 2014, 91, 22-29.  | 0.5 | 170       |
| 59 | Wireless and Wearable EEG System for Evaluating Driver Vigilance. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 165-176.   | 2.7 | 173       |
| 60 | Screen-printed EEG electrode set for emergency use. Sensors and Actuators A: Physical, 2014, 213, 19-26.  | 2.0 | 36        |
| 61 | Developing an online steady-state visual evoked potential-based brain-computer interface system using EarEEG. , 2015, 2015, 2271-4.   |     | 11        |
| 62 | Extracting patterns of single-trial EEG using an adaptive learning algorithm. , 2015, 2015, 6642-5.   |     | 3         |
| 63 | Toward non-hair-bearing brain-computer interfaces for neurocognitive lapse detection. , 2015, 2015, 6638-41.  |     | 2         |
| 64 | A Hygroscopic Sensor Electrode for Fast Stabilized Non-Contact ECG Signal Acquisition. Sensors, 2015, 15, 19237-19250.  | 2.1 | 22        |
| 65 | Embroidered Electrode with Silver/Titanium Coating for Long-Term ECG Monitoring. Sensors, 2015, 15, 1750-1759.  | 2.1 | 102       |
| 66 | Comparison of foam-based and spring-loaded dry EEG electrodes with wet electrodes in resting and moving conditions. , 2015, 2015, 7131-4.   |     | 8         |
| 67 | Patterned Vertical Carbon Nanotube Dry Electrodes for Impedimetric Sensing and Stimulation. IEEE Sensors Journal, 2015, 15, 5851-5858.  | 2.4 | 19        |
| 68 | Novel Active Comb-Shaped Dry Electrode for EEG Measurement in Hairy Site. IEEE Transactions on Biomedical Engineering, 2015, 62, 256-263.   | 2.5 | 85        |
| 69 | Online Prediction of Driver Distraction Based on Brain Activity Patterns. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 136-150.   | 4.7 | 64        |
| 70 | Wearable silver nanowire dry electrodes for electrophysiological sensing. RSC Advances, 2015, 5, 11627-11632.   | 1.7 | 185       |
| 71 | Design of a Mobile Brain Computer Interface-Based Smart Multimedia Controller. Sensors, 2015, 15, 5518-5530.  | 2.1 | 14        |
| 72 | Soft, curved electrode systems capable of integration on the auricle as a persistent brain-computer interface. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3920-3925. | 3.3 | 319       |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 73 | Smartwatch-Based Wearable EEG System for Driver Drowsiness Detection. IEEE Sensors Journal, 2015, 15, 7169-7180.   | 2.4 | 155       |
| 74 | Long term biopotential recording by body conformable photolithography fabricated low cost polymeric microneedle arrays. Sensors and Actuators A: Physical, 2015, 236, 164-172.         | 2.0 | 40        |
| 75 | Novel Noncontact Dry Electrode With Adaptive Mechanical Design for Measuring EEG in a Hairy Site. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 3361-3368.           | 2.4 | 37        |
| 76 | Feasibility of patterned vertical CNT for dry electrode sensing of physiological parameters. , 2015, , .   |     | 8         |
| 77 | Self-adhesive epidermal carbon nanotube electronics for tether-free long-term continuous recording of biosignals. Scientific Reports, 2014, 4, 6074.                                   | 1.6 | 128       |
| 78 | Fabrication and characterization of a dry electrode integrated Gecko-inspired dry adhesive medical patch for long-term ECG measurement. Microsystem Technologies, 2015, 21, 1093-1100. | 1.2 | 16        |
| 79 | Fabrication of a Micro-Needle Array Electrode by Thermal Drawing for Bio-Signals Monitoring. Sensors, 2016, 16, 908.   | 2.1 | 47        |
| 80 | 3D Printed Dry EEG Electrodes. Sensors, 2016, 16, 1635.  | 2.1 | 77        |
| 81 | New Flexible Silicone-Based EEG Dry Sensor Material Compositions Exhibiting Improvements in Lifespan, Conductivity, and Reliability. Sensors, 2016, 16, 1826.                          | 2.1 | 20        |
| 82 | Polymer-based candle-shaped microneedle electrodes for electroencephalography on hairy skin. Japanese Journal of Applied Physics, 2016, 55, 06GP16.                                    | 0.8 | 13        |
| 83 | Highly precise nanofiber web-based dry electrodes for vital signal monitoring. RSC Advances, 2016, 6, 40045-40057.   | 1.7 | 15        |
| 84 | Novel semi-dry electrodes for brain-computer interface applications. Journal of Neural Engineering, 2016, 13, 046021.  | 1.8 | 54        |
| 85 | A motor imagery based brain-computer interface system via swarm-optimized fuzzy integral and its application. , 2016, , .  |     | 4         |
| 86 | Novel passive ceramic based semi-dry electrodes for recording electroencephalography signals from the hairy scalp. Sensors and Actuators B: Chemical, 2016, 237, 167-178.              | 4.0 | 69        |
| 87 | Experimental investigation on surface wettability of copper-based dry bioelectrodes. Sensors and Actuators A: Physical, 2016, 244, 237-242.  | 2.0 | 7         |
| 88 | Polypyrrole (PPy) conductive polymer coating of dry patterned vertical CNT (pvCNT) electrode to improve mechanical stability. , 2016, , .  |     | 4         |
| 89 | Novel Non-Contact Control System for Medical Healthcare of Disabled Patients. IEEE Access, 2016, 4, 5687-5694.   | 2.6 | 17        |
| 90 | Capacitive Biopotential Measurement for Electrophysiological Signal Acquisition: A Review. IEEE Sensors Journal, 2016, 16, 2832-2853.  | 2.4 | 128       |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 91  | A novel passive electrode based on porous Ti for EEG recording. Sensors and Actuators B: Chemical, 2016, 226, 349-356.   | 4.0  | 45        |
| 92  | Parylene-based flexible dry electrode for biopotential recording. Sensors and Actuators B: Chemical, 2016, 231, 1-11.  | 4.0  | 66        |
| 93  | Detection of eye blink artifacts from single prefrontal channel electroencephalogram. Computer Methods and Programs in Biomedicine, 2016, 124, 19-30.                                      | 2.6  | 59        |
| 94  | Self-Adhesive and Capacitive Carbon Nanotube-Based Electrode to Record Electroencephalograph Signals From the Hairy Scalp. IEEE Transactions on Biomedical Engineering, 2016, 63, 138-147. | 2.5  | 32        |
| 95  | In-Ear EEG From Viscoelastic Generic Earpieces: Robust and Unobtrusive 24/7 Monitoring. IEEE Sensors Journal, 2016, 16, 271-277.   | 2.4  | 143       |
| 96  | Fully Textile, PEDOT:PSS Based Electrodes for Wearable ECG Monitoring Systems. IEEE Transactions on Biomedical Engineering, 2016, 63, 540-549.   | 2.5  | 149       |
| 97  | Polyaniline-coated foam electrodes for electroencephalography (EEG) measurement. Journal of the Textile Institute, 2016, 107, 283-290.   | 1.0  | 27        |
| 98  | An FPC based flexible dry electrode with stacked double-micro-domes array for wearable biopotential recording system. Microsystem Technologies, 2017, 23, 1443-1451.                       | 1.2  | 11        |
| 99  | Active Electrodes for Wearable EEG Acquisition: Review and Electronics Design Methodology. IEEE Reviews in Biomedical Engineering, 2017, 10, 187-198.                                      | 13.1 | 118       |
| 100 | A microneedle electrode array on flexible substrate for long-term EEG monitoring. Sensors and Actuators B: Chemical, 2017, 244, 750-758.   | 4.0  | 92        |
| 101 | Inkjet-Printed PEDOT:PSS Electrodes on Paper for Electrocardiography. Advanced Healthcare Materials, 2017, 6, 1601167.   | 3.9  | 91        |
| 102 | Forehead EEG in Support of Future Feasible Personal Healthcare Solutions: Sleep Management, Headache Prevention, and Depression Treatment. IEEE Access, 2017, 5, 10612-10621.              | 2.6  | 48        |
| 103 | 27.2 A 25.2mW EEG-NIRS multimodal SoC for accurate anesthesia depth monitoring. , 2017, , .  |      | 13        |
| 104 | Porous Structure Fabrication Using a Stereolithography-Based Sugar Foaming Method. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2017, 139, .                | 1.3  | 31        |
| 105 | Spelling With a Small Mobile Brain-Computer Interface in a Moving Wheelchair. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 2169-2179.                     | 2.7  | 10        |
| 106 | Characterization of impedance properties of metal dry bioelectrodes with surface microstructure arrays. Sensors and Actuators A: Physical, 2017, 263, 252-258.                             | 2.0  | 19        |
| 107 | Fabrication and interfacial characteristics of surface modified Ag nanoparticle based conductive composites. RSC Advances, 2017, 7, 29702-29712.   | 1.7  | 20        |
| 108 | Riemannian geometry for EEG-based brain-computer interfaces; a primer and a review. Brain-Computer Interfaces, 2017, 4, 155-174.   | 0.9  | 258       |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 109 | myBrain: a novel EEG embedded system for epilepsy monitoring. Journal of Medical Engineering and Technology, 2017, 41, 564-585.  | 0.8 | 17        |
| 110 | EEG-Based Brain-Computer Interfaces: A Novel Neurotechnology and Computational Intelligence Method. IEEE Systems, Man, and Cybernetics Magazine, 2017, 3, 16-26.   | 1.2 | 31        |
| 111 | Lab-on-Skin: A Review of Flexible and Stretchable Electronics for Wearable Health Monitoring. ACS Nano, 2017, 11, 9614-9635.   | 7.3 | 1,245     |
| 112 | Stretchable Dry Electrodes with Concentric Ring Geometry for Enhancing Spatial Resolution in Electrophysiology. Advanced Healthcare Materials, 2017, 6, 1700552.   | 3.9 | 48        |
| 113 | Novel dry metal electrode with tilted microstructure fabricated with laser micromilling process. Sensors and Actuators A: Physical, 2017, 264, 76-83.  | 2.0 | 3         |
| 114 | A wireless steady state visually evoked potential-based BCI eating assistive system. , 2017, , .   |     | 9         |
| 115 | Comparison of electrode technologies for dry and portable EEG acquisition. , 2017, , .   |     | 11        |
| 116 | Fuzzy Integral With Particle Swarm Optimization for a Motor-Imagery-Based Brain-Computer Interface. IEEE Transactions on Fuzzy Systems, 2017, 25, 21-28.   | 6.5 | 55        |
| 117 | Trends in EEG-BCI for daily-life: Requirements for artifact removal. Biomedical Signal Processing and Control, 2017, 31, 407-418.  | 3.5 | 216       |
| 118 | Towards gel-free electrodes: A systematic study of electrode-skin impedance. Sensors and Actuators B: Chemical, 2017, 241, 1244-1255.  | 4.0 | 114       |
| 119 | The electrical characteristics of electroconductive gels used in biomedical applications. , 2017, , .  |     | 3         |
| 120 | Estimation of SSVEP-based EEG complexity using inherent fuzzy entropy. , 2017, , .   |     | 8         |
| 121 | Noise Suppression by Minima Controlled Recursive Averaging for SSVEP-Based BCIs With Single Channel. IEEE Signal Processing Letters, 2017, 24, 1783-1787.  | 2.1 | 6         |
| 122 | A Hybrid FPGA-Based System for EEG- and EMG-Based Online Movement Prediction. Sensors, 2017, 17, 1552.   | 2.1 | 36        |
| 123 | A Multifunctional Brain-Computer Interface Intended for Home Use: An Evaluation with Healthy Participants and Potential End Users with Dry and Gel-Based Electrodes. Frontiers in Neuroscience, 2017, 11, 286. | 1.4 | 38        |
| 124 | An Electronic System for the Contactless Reading of ECG Signals. Sensors, 2017, 17, 2474.  | 2.1 | 20        |
| 125 | Technology Innovations, Challenges and Emerging Trends in Wearable Bio-Sensor Development. , 2017, , .   |     | 2         |
| 126 | Novel Upper-Limb Rehabilitation System Based on Attention Technology for Post-Stroke Patients: A Preliminary Study. IEEE Access, 2018, 6, 2720-2731.   | 2.6 | 33        |



| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 127 | Toward Drowsiness Detection Using Non-hair-Bearing EEG-Based Brain-Computer Interfaces. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 400-406.                  | 2.7 | 113       |
| 128 | Visual Evoked Potential Recordings in Mice Using a Dry Non-invasive Multi-channel Scalp EEG Sensor. Journal of Visualized Experiments, 2018, , .  | 0.2 | 2         |
| 129 | Contactless Yagi-patch EMG electrodes design and development for prosthetics. Sensor Review, 2018, 38, 146-155.   | 1.0 | 2         |
| 130 | Development of printed and flexible dry ECG electrodes. Sensing and Bio-Sensing Research, 2018, 20, 9-15.   | 2.2 | 140       |
| 131 | Optimization of signal quality over comfortability of textile electrodes for ECG monitoring in fog computing based medical applications. Future Generation Computer Systems, 2018, 86, 515-526. | 4.9 | 112       |
| 132 | 2D/3D-Display Auto-Adjustment Switch System. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 799-805.  | 3.9 | 7         |
| 133 | Exploring resting-state EEG complexity before migraine attacks. Cephalalgia, 2018, 38, 1296-1306.   | 1.8 | 36        |
| 134 | Seamless Healthcare Monitoring. , 2018, , .   |     | 14        |
| 135 | Electroencephalogram. , 2018, , 45-81.  |     | 23        |
| 136 | Electrical impedance performance of metal dry bioelectrode with different surface coatings. Sensors and Actuators A: Physical, 2018, 269, 515-523.  | 2.0 | 10        |
| 137 | Characterization of a Novel Polypyrrole (PPy) Conductive Polymer Coated Patterned Vertical CNT (pvCNT) Dry ECG Electrode. Chemosensors, 2018, 6, 27.  | 1.8 | 15        |
| 138 | Flexible Non-contact Electrodes for Bioelectrical Signal Monitoring. , 2018, 2018, 4305-4308.   |     | 7         |
| 139 | Active Sensors for the Acquisition of Physiological Signals. , 2018, , .  |     | 1         |
| 140 | Two-Wired Current Modulator Active Electrode for Ambulatory Biosignal Recording. IEEE Transactions on Biomedical Circuits and Systems, 2018, 13, 1-1.   | 2.7 | 4         |
| 141 | Conductive textile as wearable electrode in intrabody communications. Medical Devices & Sensors, 2018, 1, e10016.   | 2.7 | 5         |
| 142 | A novel approach to emotion recognition using local subset feature selection and modified Dempster-Shafer theory. Behavioral and Brain Functions, 2018, 14, 17.                                 | 1.4 | 23        |
| 143 | Validation and Benchmarking of a Wearable EEG Acquisition Platform for Real-World Applications. IEEE Transactions on Biomedical Circuits and Systems, 2018, 13, 1-1.                            | 2.7 | 17        |
| 144 | Effects of an Integrated Neurofeedback System with Dry Electrodes: EEG Acquisition and Cognition Assessment. Sensors, 2018, 18, 3396.   | 2.1 | 29        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 145 | Dry electrodes for bioimpedance measurementsâ€™ design, characterization and comparison. Biomedical Physics and Engineering Express, 2018, 5, 015001.   | 0.6 | 37        |
| 146 | Electro-deposited Nanoporous Platinum Electrode for EEG Monitoring. Journal of Korean Medical Science, 2018, 33, e154.  | 1.1 | 8         |
| 147 | Integration of Heterogeneous Materials for Wearable Sensors. Polymers, 2018, 10, 60.  | 2.0 | 18        |
| 148 | Textile Concentric Ring Electrodes for ECG Recording Based on Screen-Printing Technology. Sensors, 2018, 18, 300.   | 2.1 | 27        |
| 149 | A Flexible Multiring Concentric Electrode for Non-Invasive Identification of Intestinal Slow Waves. Sensors, 2018, 18, 396.   | 2.1 | 14        |
| 150 | A Novel Antibacterial Membrane Electrode Based on Bacterial Cellulose/Polyaniline/AgNO <sub>3</sub> Composite for Bio-Potential Signal Monitoring. IEEE Journal of Translational Engineering in Health and Medicine, 2018, 6, 1-10. | 2.2 | 4         |
| 152 | Can Textile Electrode for ECG Apply to EMG Measurement?. IFMBE Proceedings, 2019, , 431-434.  | 0.2 | 1         |
| 153 | Design of Low-Power EEG-Based Brainâ€™Computer Interface. Lecture Notes in Electrical Engineering, 2019, , 213-221.   | 0.3 | 1         |
| 154 | Dry-Contact Electrode Ear-EEG. IEEE Transactions on Biomedical Engineering, 2019, 66, 150-158.  | 2.5 | 104       |
| 155 | Flexible Multi-Layer Semi-Dry Electrode for Scalp EEG Measurements at Hairy Sites. Micromachines, 2019, 10, 518.  | 1.4 | 34        |
| 156 | Analysis of a Low-Cost EEG Monitoring System and Dry Electrodes toward Clinical Use in the Neonatal ICU. Sensors, 2019, 19, 2637.   | 2.1 | 32        |
| 157 | EEG-Trockenelektroden und ihre Anwendungen bei BCI-Systemen. Neurophysiologie-Labor, 2019, 41, 148-155.   | 0.0 | 1         |
| 158 | Highly conformable stretchable dry electrodes based on inexpensive flex substrate for long-term biopotential (EMG/ECG) monitoring. Sensors and Actuators A: Physical, 2019, 295, 678-686.   | 2.0 | 76        |
| 159 | From the Lab to the Field: Potential Applications of Dry EEG Systems to Understand the Brain-Behavior Relationship in Sports. Frontiers in Neuroscience, 2019, 13, 893.   | 1.4 | 19        |
| 160 | Scalp and Special Electrodes. , 2019, , 23-33.  |     | 0         |
| 161 | Brain-Computer Interfaces in Contemporary Art: A State of the Art and Taxonomy. , 2019, , 65-115.   |     | 13        |
| 162 | Wearable and Flexible Textile Electrodes for Biopotential Signal Monitoring: A review. Electronics (Switzerland), 2019, 8, 479.   | 1.8 | 183       |
| 163 | A novel dry-contact electrode for measuring electroencephalography signals. Sensors and Actuators A: Physical, 2019, 294, 73-80.  | 2.0 | 21        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 164 | Multilayer Sweat-Absorbable Textile Electrode for EEG Measurement in Forehead Site. IEEE Sensors Journal, 2019, 19, 5995-6005.   | 2.4 | 39        |
| 165 | Nanofiber-Reinforced Silver Nanowires Network as a Robust, Ultrathin, and Conformable Epidermal Electrode for Ambulatory Monitoring of Physiological Signals. Small, 2019, 15, e1900755.   | 5.2 | 62        |
| 166 | Development of a Smart Helmet for Strategic BCI Applications. Sensors, 2019, 19, 1867.   | 2.1 | 27        |
| 167 | Mobile EEG in research on neurodevelopmental disorders: Opportunities and challenges. Developmental Cognitive Neuroscience, 2019, 36, 100635.  | 1.9 | 123       |
| 168 | The Dry Revolution: Evaluation of Three Different EEG Dry Electrode Types in Terms of Signal Spectral Features, Mental States Classification and Usability. Sensors, 2019, 19, 1365.   | 2.1 | 117       |
| 169 | Design of a Wearable 12-Lead Noncontact Electrocardiogram Monitoring System. Sensors, 2019, 19, 1509.  | 2.1 | 24        |
| 170 | Design and Verification of a Dry Sensor-Based Multi-Channel Digital Active Circuit for Human Brain Electroencephalography Signal Acquisition Systems. Micromachines, 2019, 10, 720.  | 1.4 | 5         |
| 171 | Feedback-based Electrode Rehydration for High Quality, Long Term, Noninvasive Biopotential Measurements and Current Delivery. , 2019, , .  |     | 2         |
| 172 | Systematic comparison between a wireless EEG system with dry electrodes and a wired EEG system with wet electrodes. NeuroImage, 2019, 184, 119-129.  | 2.1 | 117       |
| 173 | Novel Flexible Material-Based Unobtrusive and Wearable Body Sensor Networks for Vital Sign Monitoring. IEEE Sensors Journal, 2019, 19, 8502-8513.  | 2.4 | 30        |
| 174 | Wearable EEG and beyond. Biomedical Engineering Letters, 2019, 9, 53-71.   | 2.1 | 151       |
| 175 | Identifying Ketamine Responses in Treatment-Resistant Depression Using a Wearable Forehead EEG. IEEE Transactions on Biomedical Engineering, 2019, 66, 1668-1679.  | 2.5 | 57        |
| 176 | Graphene loaded with nano-Cu as a highly efficient foam interface material with excellent properties of thermal-electronic conduction, anti-permeation and electromagnetic interference shielding. Chemical Engineering Journal, 2019, 361, 1110-1120. | 6.6 | 20        |
| 177 | Identifying Stable Patterns over Time for Emotion Recognition from EEG. IEEE Transactions on Affective Computing, 2019, 10, 417-429.   | 5.7 | 477       |
| 178 | Effects of repetitive SSVEPs on EEG complexity using multiscale inherent fuzzy entropy. Neurocomputing, 2020, 389, 198-206.  | 3.5 | 69        |
| 179 | Extraction of SSVEPs-Based Inherent Fuzzy Entropy Using a Wearable Headband EEG in Migraine Patients. IEEE Transactions on Fuzzy Systems, 2020, 28, 14-27.   | 6.5 | 86        |
| 180 | The effect of porosity on elastic moduli of polymer foams. Journal of Applied Polymer Science, 2020, 137, 48449.   | 1.3 | 13        |
| 181 | Performance Evaluation of Woven Conductive Dry Textile Electrodes for Continuous ECG Signals Acquisition. IEEE Sensors Journal, 2020, 20, 1573-1581.   | 2.4 | 28        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 182 | FPGA Implementation of Visual Noise Optimized Online Steady-State Motion Visual Evoked Potential BCI System*. , 2020, , .   |     | 1         |
| 183 | A Novel Motion-Onset N200P300 Brain-Computer Interface Paradigm*. , 2020, , .   |     | 0         |
| 184 | Impedance and Noise of Passive and Active Dry EEG Electrodes: A Review. IEEE Sensors Journal, 2020, 20, 14565-14577.  | 2.4 | 77        |
| 185 | Multimodal Smart Eyewear for Longitudinal Eye Movement Tracking. Matter, 2020, 3, 1275-1293.  | 5.0 | 30        |
| 186 | Using Flexible Curved Noncontact Active Electrodes to Monitor Long-Term Heart Rate Variability. Journal of Healthcare Engineering, 2020, 2020, 1-18.  | 1.1 | 2         |
| 187 | 3D Printable Dry EEG Electrodes with Coiled-Spring Prongs. Sensors, 2020, 20, 4733.   | 2.1 | 16        |
| 188 | Integration of Conductive Materials with Textile Structures, an Overview. Sensors, 2020, 20, 6910.  | 2.1 | 48        |
| 189 | A Real-Time Depth of Anesthesia Monitoring System Based on Deep Neural Network With Large EDO Tolerant EEG Analog Front-End. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 825-837. | 2.7 | 26        |
| 190 | Multimaterial and multifunctional neural interfaces: from surface-type and implantable electrodes to fiber-based devices. Journal of Materials Chemistry B, 2020, 8, 6624-6666.                       | 2.9 | 41        |
| 191 | Soft Electronics for the Skin: From Health Monitors to Humanâ€“Machine Interfaces. Advanced Materials Technologies, 2020, 5, .  | 3.0 | 80        |
| 192 | EEG signal cleaning for drowsiness detection. , 2020, , .   |     | 0         |
| 193 | Development of medical imaging sensors. International Journal of Distributed Sensor Networks, 2020, 16, 155014772090360.  | 1.3 | 3         |
| 194 | Effect of Sweating on Electrode-Skin Contact Impedances and Artifacts in EEG Recordings With Various Screen-Printed Ag/Agcl Electrodes. IEEE Access, 2020, 8, 50934-50943.                            | 2.6 | 36        |
| 195 | Facile Preparation of Lightweight and Robust Polybenzoxazine Foams. Industrial & Engineering Chemistry Research, 2020, 59, 7575-7583.   | 1.8 | 16        |
| 196 | Dry Electrodes for Human Bioelectrical Signal Monitoring. Sensors, 2020, 20, 3651.  | 2.1 | 105       |
| 197 | Augmented Wire-Embedded Silicon-Based Dry-Contact Sensors for Electroencephalography Signal Measurements. IEEE Sensors Journal, 2020, 20, 3831-3837.  | 2.4 | 9         |
| 198 | Comparison between a wireless dry electrode EEG system with a conventional wired wet electrode EEG system for clinical applications. Scientific Reports, 2020, 10, 5218.                              | 1.6 | 112       |
| 199 | Influence of Capacitive Coupling on High-Fidelity Non-Contact ECG Measurement. IEEE Sensors Journal, 2020, 20, 9265-9273.   | 2.4 | 32        |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 200 | Design of SSVEP Enhancement-Based Brain Computer Interface. IEEE Sensors Journal, 2021, 21, 14330-14338.   | 2.4 | 8         |
| 201 | Wearable Electrical Impedance Tomography Belt With Dry Electrodes. IEEE Transactions on Biomedical Engineering, 2022, 69, 955-962.   | 2.5 | 3         |
| 202 | Smart Textiles and Sensorized Garments for Physiological Monitoring: A Review of Available Solutions and Techniques. Sensors, 2021, 21, 814.   | 2.1 | 72        |
| 203 | Negative Impedance Capacitive Electrode for ECG Sensing Through Fabric Layer. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.   | 2.4 | 9         |
| 204 | The Impact of Vigorous Cycling Exercise on Visual Attention: A Study With the BR8 Wireless Dry EEG System. Frontiers in Neuroscience, 2021, 15, 621365.  | 1.4 | 6         |
| 205 | The Status of Textile-Based Dry EEG Electrodes. Autex Research Journal, 2021, 21, 63-70.   | 0.6 | 32        |
| 206 | Towards real-life EEG applications: novel superporous hydrogel-based semi-dry EEG electrodes enabling automatically "charge" "discharge" electrolyte. Journal of Neural Engineering, 2021, 18, 046016. | 1.8 | 65        |
| 207 | Development and Test of a Portable ECG Device with Dry Capacitive Electrodes and Driven Right Leg Circuit. Sensors, 2021, 21, 2777.  | 2.1 | 16        |
| 208 | Custom-Fitted In- and Around-the-Ear Sensors for Unobtrusive and On-the-Go EEG Acquisitions: Development and Validation. Sensors, 2021, 21, 2953.  | 2.1 | 14        |
| 209 | A Novel Wearable Flexible Dry Electrode Based on Cowhide for ECG Measurement. Biosensors, 2021, 11, 101.   | 2.3 | 18        |
| 210 | Flexible graphene/GO electrode for gel-free EEG. Journal of Neural Engineering, 2021, 18, 046060.  | 1.8 | 12        |
| 211 | Fabrication of titanium dioxide nanomaterial for implantable highly flexible composite bioelectrode for biosensing applications. Chemosphere, 2021, 273, 129680.                                       | 4.2 | 11        |
| 212 | Time Evolution of the Skin "Electrode Interface Impedance under Different Skin Treatments. Sensors, 2021, 21, 5210.  | 2.1 | 9         |
| 213 | Acquisition of Surface EMG Using Flexible and Low-Profile Electrodes for Lower Extremity Neuroprosthetic Control. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 563-572.                 | 2.1 | 10        |
| 214 | A reliable stretchable dry electrode for monitoring of EEG signals. Sensors and Actuators A: Physical, 2021, 326, 112727.  | 2.0 | 19        |
| 215 | Design of a Wearable Eye-Movement Detection System Based on Electrooculography Signals and Its Experimental Validation. Biosensors, 2021, 11, 343.   | 2.3 | 11        |
| 216 | Wearable, Integrated EEG "fNIRS Technologies: A Review. Sensors, 2021, 21, 6106.   | 2.1 | 38        |
| 217 | Surface bioelectric dry Electrodes: A review. Measurement: Journal of the International Measurement Confederation, 2021, 183, 109774.  | 2.5 | 39        |

| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 218 | Direct-Sense Brain-Computer Interfaces and Wearable Computers. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2021, 51, 298-312.  | 5.9 | 22        |
| 219 | An Attention Level Monitoring and Alarming System for the Driver Fatigue in the Pervasive Environment. Lecture Notes in Computer Science, 2013, , 287-296.  | 1.0 | 10        |
| 220 | A Real-World Neuroimaging System to Evaluate Stress. Lecture Notes in Computer Science, 2013, , 316-325.  | 1.0 | 7         |
| 221 | Graphene electrodes for long-term impedance pneumography - a feasibility study. IFMBE Proceedings, 2018, , 514-517.   | 0.2 | 1         |
| 222 | EEG: Neural Basis and Measurement. , 2019, , 7-21.  |     | 6         |
| 223 | Review of semi-dry electrodes for EEG recording. Journal of Neural Engineering, 2020, 17, 051004.   | 1.8 | 95        |
| 224 | Carbon nanofiber-filled conductive silicone elastomers as soft, dry bioelectronic interfaces. PLoS ONE, 2018, 13, e0189415.   | 1.1 | 11        |
| 225 | Evaluation of a low-cost and low-noise active dry electrode for long-term biopotential recording. Journal of Medical Signals and Sensors, 2016, 6, 197.   | 0.5 | 6         |
| 226 | Validation of Soft Multipin Dry EEG Electrodes. Sensors, 2021, 21, 6827.  | 2.1 | 9         |
| 229 | Investigations of real conditions properties of the biomedical electrodes with integrated electrode contact quality monitoring system for recording electrocardiographic signals. Przegląd Elektrotechniczny, 2016, 1, 57-60. | 0.1 | 0         |
| 230 | Polyaniline as Novel Polymer Materials for Dry Electrode- Based Electrocardiography (ECG). Jurnal Elektronika Dan Telekomunikasi, 2018, 18, 1.  | 0.6 | 1         |
| 231 | RELIABLE LABEL EFFICIENT LEARNING OF EEG ACQUISITION USING ELECTRODES. , 2019, 04, 270-275.   |     | 0         |
| 232 | From the perspective of material science: a review of flexible electrodes for brain-computer interface. Materials Research Express, 2020, 7, 102001.  | 0.8 | 13        |
| 233 | Evaluation of a Low-cost and Low-noise Active Dry Electrode for Long-term Biopotential Recording. Journal of Medical Signals and Sensors, 2016, 6, 197-202.   | 0.5 | 1         |
| 234 | Development of a Flexible and Conformable EEG Sensors Using 3D Printing Process. , 2021, , .  |     | 2         |
| 235 | Development of a flexible dry electrode based MXene with low contact impedance for biopotential recording. Measurement: Journal of the International Measurement Confederation, 2022, 190, 110782.                            | 2.5 | 9         |
| 236 | A Pre-Gelled EEG Electrode and Its Application in SSVEP-Based BCI. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 843-850.   | 2.7 | 14        |
| 237 | PhyMask: Robust Sensing of Brain Activity and Physiological Signals During Sleep with an All-textile Eye Mask. ACM Transactions on Computing for Healthcare, 2022, 3, 1-35.   | 3.3 | 8         |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 238 | State of the Art of Non-Invasive Electrode Materials for Brain-Computer Interface. <i>Micromachines</i> , 2021, 12, 1521.  | 1.4  | 12        |
| 239 | Eye Movement Signal Classification for Developing Human-Computer Interface Using Electrooculogram. <i>Journal of Healthcare Engineering</i> , 2021, 2021, 1-11.  | 1.1  | 12        |
| 240 | A novel flexible hydrogel electrode with a strong moisturizing ability for long-term EEG recording. <i>Journal of Neural Engineering</i> , 2021, 18, 066047.   | 1.8  | 27        |
| 241 | How to successfully classify EEG in motor imagery BCI: a metrological analysis of the state of the art. <i>Journal of Neural Engineering</i> , 2022, 19, 031002.   | 1.8  | 31        |
| 242 | High-Performance Flexible Microneedle Array as a Low-Impedance Surface Biopotential Dry Electrode for Wearable Electrophysiological Recording and Polysomnography. <i>Nano-Micro Letters</i> , 2022, 14, .   | 14.4 | 26        |
| 243 | Skin-Like Transparent Sensor Sheet for Remote Healthcare Using Electroencephalography and Photoplethysmography. <i>Advanced Materials Technologies</i> , 2022, 7, .  | 3.0  | 9         |
| 244 | Wide Frequency Impedance Meter Analysis. , 2022, , .   |      | 1         |
| 245 | EEG sensor system development consisting of solid polyvinyl alcohol-glycerol-NaCl contact gel and 3D-printed, silver-coated polylactic acid electrode for potential brain-computer interface use. <i>Materials Today Chemistry</i> , 2022, 26, 101085. | 1.7  | 6         |
| 246 | A CMOS Microelectrode Array System With Reconfigurable Sub-Array Multiplexing Architecture Integrating 24,320 Electrodes and 380 Readout Channels. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2022, 16, 1044-1056.                  | 2.7  | 1         |
| 247 | Advances in Materials, Sensors, and Integrated Systems for Monitoring Eye Movements. <i>Biosensors</i> , 2022, 12, 1039.   | 2.3  | 4         |
| 248 | Emerging Wearable Biosensor Technologies for Stress Monitoring and Their Real-World Applications. <i>Biosensors</i> , 2022, 12, 1097.  | 2.3  | 9         |
| 249 | High density cleanroom-free microneedle arrays for pain-free drug delivery. <i>Journal of Micromechanics and Microengineering</i> , 2023, 33, 015005.  | 1.5  | 1         |
| 250 | Bibliometric analysis on Brain-computer interfaces in a 30-year period. <i>Applied Intelligence</i> , 2023, 53, 16205-16225.   | 3.3  | 2         |
| 251 | Amphiphilic Silicones for the Facile Dispersion of Carbon Nanotubes and Formation of Soft Skin Electrodes. <i>ACS Applied Polymer Materials</i> , 2023, 5, 775-783.  | 2.0  | 2         |
| 252 | The Feature, Performance, and Prospect of Advanced Electrodes for Electroencephalogram. <i>Biosensors</i> , 2023, 13, 101.   | 2.3  | 14        |
| 253 | Fully Screen-Printed PI/PEG Blends Enabled Patternable Electrodes for Scalable Manufacturing of Skin-Conformal, Stretchable, Wearable Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , 2023, 15, 2092-2103.                                | 4.0  | 8         |
| 254 | Reduction in the Motion Artifacts in Noncontact ECG Measurements Using a Novel Designed Electrode Structure. <i>Sensors</i> , 2023, 23, 956.   | 2.1  | 4         |
| 255 | Use of Technology in Geriatric Psychiatry. , 2022, , .   |      | 0         |

| #   | ARTICLE  | IF  | CITATIONS |
|-----|--|-----|-----------|
| 256 | Claw-shaped flexible and low-impedance conductive polymer electrodes for EEG recordings: Anemone dry electrode. Science China Technological Sciences, 2023, 66, 255-266. | 2.0 | 3         |
| 257 | Biomedical Silicones: Leveraging Additive Strategies to Propel Modern Utility. ACS Macro Letters, 2023, 12, 172-182.   | 2.3 | 5         |
| 258 | Easily Attach/Detach Reattachable EEG Headset with Candle-like Microneedle Electrodes. Micromachines, 2023, 14, 400.   | 1.4 | 0         |
| 259 | 3D Printed Dry Electrodes for Electrophysiological Signal Monitoring: A Review. Advanced Materials Technologies, 2023, 8, .  | 3.0 | 4         |
| 260 | Wireless Electrical Impedance Tomography for Pleural Effusion Analysis. IEEE Sensors Journal, 2023, 23, 11025-11033.   | 2.4 | 0         |