

# James McLaughlin

## List of Publications by Year in descending order

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Version: 2024-02-01

93  
papers

1,207  
citations

471061

17  
h-index

454577

30  
g-index

94  
all docs

94  
docs citations

94  
times ranked

1795  
citing authors

#	ARTICLE	IF	CITATIONS
1	Printed pH Sensors for Textile-Based Wearables: A Conceptual and Experimental Study on Materials, Deposition Technology, and Sensing Principles. <i>Advanced Engineering Materials</i> , 2022, 24, 2101087.	1.6	10
2	User experience of home-based AbC-19 SARS-CoV-2 antibody rapid lateral flow immunoassay test. <i>Scientific Reports</i> , 2022, 12, 1173.	1.6	3
3	Cross reactivity of spike glycoprotein induced antibody against Delta and Omicron variants before and after third SARS-CoV-2 vaccine dose in healthy and immunocompromised individuals. <i>Journal of Infection</i> , 2022, 84, 579-613.	1.7	21
4	High-Sensitive Detection and Quantitative Analysis of Thyroid-Stimulating Hormone Using Gold-Nanoshell-Based Lateral Flow Immunoassay Device. <i>Biosensors</i> , 2022, 12, 182.	2.3	8
5	Data acquisition and imaging using wavelet transform: a new path for high speed transient force microscopy. <i>Nanoscale Advances</i> , 2021, 3, 383-398.	2.2	6
6	Sensitivity analysis of the infection transmissibility in the UK during the COVID-19 pandemic. <i>PeerJ</i> , 2021, 9, e10992.	0.9	5
7	The effect of confounding data features on a deep learning algorithm to predict complete coronary occlusion in a retrospective observational setting. <i>European Heart Journal Digital Health</i> , 2021, 2, 127-134.	0.7	11
8	Evaluation of the IgG antibody response to SARS CoV-2 infection and performance of a lateral flow immunoassay: cross-sectional and longitudinal analysis over 11 months. <i>BMJ Open</i> , 2021, 11, e048142.	0.8	17
9	User experience analysis of AbC-19 Rapid Test via lateral flow immunoassays for self-administrated SARS-CoV-2 antibody testing. <i>Scientific Reports</i> , 2021, 11, 14026.	1.6	10
10	Overview of featurization techniques used in traditional versus emerging deep learning-based algorithms for automated interpretation of the 12-lead ECG. <i>Journal of Electrocardiology</i> , 2021, 69S, 7-11.	0.4	0
11	Fusion of Unobtrusive Sensing Solutions for Home-Based Activity Recognition and Classification Using Data Mining Models and Methods. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9096.	1.3	1
12	The effect of interpolating low amplitude leads on the inverse reconstruction of cardiac electrical activity. <i>Computers in Biology and Medicine</i> , 2021, 136, 104666.	3.9	3
13	Polarity dependent electrowetting for directional transport of water through patterned superhydrophobic laser induced graphene fibers. <i>Carbon</i> , 2021, 182, 605-614.	5.4	21
14	COVID-19 modelling by time-varying transmission rate associated with mobility trend of driving via Apple Maps. <i>Journal of Biomedical Informatics</i> , 2021, 122, 103905.	2.5	14
15	Code-free cloud computing service to facilitate rapid biomedical digital signal processing and algorithm development. <i>Computer Methods and Programs in Biomedicine</i> , 2021, 211, 106398.	2.6	0
16	Fusion of Unobtrusive Sensing Solutions for Sprained Ankle Rehabilitation Exercises Monitoring in Home Environments. <i>Sensors</i> , 2021, 21, 7560.	2.1	0
17	A Novel Method for Quantitative Analysis of C-Reactive Protein Lateral Flow Immunoassays Images via CMOS Sensor and Recurrent Neural Networks. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2021, 9, 1-15.	2.2	8
18	Estimating the Minimal Size of Training Datasets Required for the Development of Linear ECG-Lead Transformations. , 2021, , .		0

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19	Rapid Classification of Respiratory Syncytial Virus and Sendai Virus by a Low-cost and Portable Near-infrared Spectrometer. , 2021, , .		0
20	Independent and grouped 3D cell rotation in a microfluidic device for bioimaging applications. Biosensors and Bioelectronics, 2020, 170, 112661.	5.3	16
21	Enhance Categorisation Of Multilevel High-Sensitivity Cardiovascular Biomarkers From Lateral Flow Immunoassay Images Via Neural Networks And Dynamic Time Warping. , 2020, , .		4
22	Data Mining and Fusion of Unobtrusive Sensing Solutions for Indoor Activity Recognition. , 2020, 2020, 5357-5361.		2
23	A Data-Driven Simulator for the Strategic Positioning of Aerial Ambulance Drones Reaching Out-of-Hospital Cardiac Arrests: A Genetic Algorithmic Approach. IEEE Journal of Translational Engineering in Health and Medicine, 2020, 8, 1-10.	2.2	21
24	A Point-of-Care Measurement of NT-proBNP for Heart Failure Patients. IEEE Access, 2020, 8, 138973-138983.	2.6	9
25	Recovery of Incapacitated Commercial Delivery Drones Using LPWAN Technology. IEEE Intelligent Transportation Systems Magazine, 2020, 12, 6-19.	2.6	8
26	Red Mud-Reduced Graphene Oxide Nanocomposites for the Electrochemical Sensing of Arsenic. ACS Applied Nano Materials, 2020, 3, 4084-4090.	2.4	21
27	Rapid removal of lead(II) ions from water using iron oxideâ€œtea waste nanocomposite â€œ a kinetic study. IET Nanobiotechnology, 2020, 14, 275-280.	1.9	11
28	A lateral flow immunoassay with self-sufficient microfluidic system for enhanced detection of thyroid-stimulating hormone. AIP Advances, 2020, 10, .	0.6	10
29	Detection and Categorisation of Multilevel High-sensitivity Cardiovascular Biomarkers from Lateral Flow Immunoassay Images via Recurrent Neural Networks. , 2020, , .		2
30	High density nanowire electrodes for intracortical microstimulation. , 2019, 2019, 5657-5660.		1
31	Deep learning to automatically interpret images of the electrocardiogram: Do we need the raw samples?. Journal of Electrocardiology, 2019, 57, S65-S69.	0.4	17
32	Novel hybrid method for interpolating missing information in body surface potential maps. Journal of Electrocardiology, 2019, 57, S51-S55.	0.4	8
33	Laser-Patternable Graphene Field Emitters for Plasma Displays. Nanomaterials, 2019, 9, 1493.	1.9	5
34	A Low-Cost Tonometer Alternative: A Comparison Between Photoplethysmogram and Finger Ballistocardiogram and Validation Against Tonometric Waveform. IEEE Access, 2019, 7, 142787-142795.	2.6	5
35	Corona Discharge-Induced Functional Surfaces of Polycarbonate and Cyclic Olefins Substrates. Surface and Coatings Technology, 2019, 362, 185-190.	2.2	21
36	Vertically Aligned Few-Layered Graphene-Based Non-Cryogenic Bolometer. Journal of Carbon Research, 2019, 5, 23.	1.4	7

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37	Versatile microfluidic platform embedded with sidewall three-dimensional electrodes for cell manipulation. <i>Biomedical Physics and Engineering Express</i> , 2019, 5, 055003.	0.6	13
38	Pulsed Transmission Waveform to Mitigate Tissue Thermal Effects in Transcutaneous Wireless Energy Supply Systems for High-Power Rated Medical Implants. <i>IFMBE Proceedings</i> , 2019, , 945-950.	0.2	0
39	Interpolating Low Amplitude ECG Signals Combined with Filtering According to International Standards Improves Inverse Reconstruction of Cardiac Electrical Activity. <i>Lecture Notes in Computer Science</i> , 2019, , 112-120.	1.0	0
40	Amalgamation of Metamaterial and SIW Technologies for Realizing Wide-Bandwidth and High-Radiation Properties of On-Chip Antennas for Application in Packaging of Terahertz Components. , 2019, , .		2
41	Terahertz On-Chip Antenna Based on Metasurface and SIW with Stacked Layers of Resonators on GaAs Substrate. , 2019, , .		3
42	Body-centric wireless hospital patient monitoring networks using body-contoured flexible antennas. <i>IET Microwaves, Antennas and Propagation</i> , 2018, 12, 203-210.	0.7	12
43	Internet of Things-Enabled Hospital Wards: Ultrawideband Doctor-Patient Radio Channels. <i>IEEE Antennas and Propagation Magazine</i> , 2018, 60, 10-18.	1.2	8
44	A Clear, Delicate, Biocompatible Optical Window for Brain Imaging. , 2018, , .		1
45	An unobtrusive sensing solution for home based post-stroke rehabilitation. , 2018, , .		5
46	Hydrogel as a Nerve Guide and Biocompatible Glue for Neural Applications. , 2018, , .		3
47	Automation bias in medicine: The influence of automated diagnoses on interpreter accuracy and uncertainty when reading electrocardiograms. <i>Journal of Electrocardiology</i> , 2018, 51, S6-S11.	0.4	58
48	Fast and controllable elastocapillary flow channels using suspended membranes. , 2018, , .		1
49	Nanostructured nitrogen doped diamond for the detection of toxic metal ions. <i>Electrochimica Acta</i> , 2018, 283, 1871-1878.	2.6	24
50	A Community-Based IoT Personalized Wireless Healthcare Solution Trial. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2018, 6, 1-13.	2.2	102
51	Novel $\gamma$ -conjugated iron oxide/reduced graphene oxide nanocomposites for high performance electrochemical supercapacitors. <i>RSC Advances</i> , 2017, 7, 327-335.	1.7	30
52	Development of an embedded thin-film strain-gauge-based SHM network into 3D-woven composite structure for wind turbine blades. <i>Proceedings of SPIE</i> , 2017, , .	0.8	3
53	Aloe vera assisted facile green synthesis of reduced graphene oxide for electrochemical and dye removal applications. <i>RSC Advances</i> , 2017, 7, 26680-26688.	1.7	116
54	Performance assessment of dry electrodes for wearable long term cardiac rhythm monitoring: Skin-electrode impedance spectroscopy. , 2017, 2017, 1861-1864.		9

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55	Morphology-based Detection of Premature Ventricular Contractions. , 2017, , .		1
56	Human factors analysis of the CardioQuick Patch <sup>®</sup> : A novel engineering solution to the problem of electrode misplacement during 12-lead electrocardiogram acquisition. Journal of Electrocardiology, 2016, 49, 911-918.	0.4	14
57	Automated detection of atrial fibrillation using R-R intervals and multivariate-based classification. Journal of Electrocardiology, 2016, 49, 871-876.	0.4	53
58	Computing the spatial QRS-T angle using reduced electrocardiographic lead sets. Journal of Electrocardiology, 2016, 49, 794-799.	0.4	2
59	The Cardiac Conduction System. Critical Care Nursing Clinics of North America, 2016, 28, 269-279.	0.4	34
60	Detecting the Elusive P-Wave: A New ECG Lead to Improve the Recording of Atrial Activity. IEEE Transactions on Biomedical Engineering, 2016, 63, 243-249.	2.5	18
61	The effects of electrode placement on an automated algorithm for detecting ST segment changes on the 12-lead ECG. , 2015, , .		2
62	On the derivation of the spatial QRS-T angle from Mason-Likar leads I, II, V2 and V5. , 2015, , .		0
63	The accuracy of beat-interval based algorithms for detecting atrial fibrillation. , 2015, , .		2
64	Improved recording of atrial activity by modified bipolar leads derived from the 12-lead electrocardiogram. Journal of Electrocardiology, 2015, 48, 1017-1021.	0.4	5
65	Kinetics and thermodynamics of human serum albumin adsorption on silicon doped diamond like carbon. Materials Chemistry and Physics, 2015, 154, 84-93.	2.0	7
66	The derivation of the spatial QRS-T angle and the spatial ventricular gradient using the Mason-Likar 12-lead electrocardiogram. Journal of Electrocardiology, 2015, 48, 1045-1052.	0.4	11
67	An Investigation into the Electrical Properties of Doped Barium Titanate Using Electrical Impedance Spectroscopy (EIS). Ferroelectrics, 2013, 448, 50-57.	0.3	4
68	Study of Human Serum Albumin Adsorption and Conformational Change on DLC and Silicon Doped DLC Using XPS and FTIR Spectroscopy. Journal of Biomaterials and Nanobiotechnology, 2013, 04, 194-203.	1.0	67
69	An investigation into the electrical properties of doped barium titanate using EIS. , 2012, , .		0
70	Exercise training and impaired glucose tolerance in obese humans. Journal of Sports Sciences, 2012, 30, 725-732.	1.0	18
71	An embedded system for on field testing of human identification using ECG biometric. , 2012, , .		4
72	Evaluation of glycine adsorption on diamond like carbon (DLC) and fluorinated DLC deposited by plasma-enhanced chemical vapour deposition (PECVD). Surface and Coatings Technology, 2012, 209, 8-14.	2.2	33

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73	Evaluation of connected health technology. <i>Technology and Health Care</i> , 2012, 20, 151-167.	0.5	8
74	Substrate Effects on the Growth of Multiwalled Carbon Nanotubes by Thermal Chemical Vapor Deposition. <i>Advanced Science Letters</i> , 2012, 7, 21-26.	0.2	1
75	An Innovative Piezoelectric-Based Method for Measuring Pulse Wave Velocity in Patients With Hypertension. <i>Journal of Clinical Hypertension</i> , 2011, 13, 497-505.	1.0	14
76	Enhancement of Field Emission Characteristics of Carbon Nanotubes on Oxidation. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 7011-7014.	0.9	3
77	Biomedical Sensors for Ambient Assisted Living. <i>Lecture Notes in Electrical Engineering</i> , 2010, , 240-262.	0.3	11
78	The Impact of Acute Moderate Intensity Exercise on Arterial Regional Stiffness, Lipid Peroxidation, and Antioxidant Status in Healthy Males. <i>Research in Sports Medicine</i> , 2010, 19, 1-13.	0.7	20
79	Cost-effective RSSI Wi-Fi positioning solution for ambulatory patient monitoring devices. , 2010, , .		2
80	Complementary Analysis of Metallic Templates Fabricated by Nanosphere Lithography. <i>E-Journal of Surface Science and Nanotechnology</i> , 2009, 7, 341-348.	0.1	3
81	Experimental and numerical investigation of capillary flow in SU8 and PDMS microchannels with integrated pillars. <i>Microfluidics and Nanofluidics</i> , 2009, 7, 451-465.	1.0	69
82	Acute exercise and impaired glucose tolerance in obese humans. <i>Journal of Clinical Lipidology</i> , 2009, 3, 262-268.	0.6	8
83	Growth and Characterization of Zinc Oxide Nanoneedles. <i>Journal of Nanoscience and Nanotechnology</i> , 2009, 9, 4367-4370.	0.9	8
84	Capillary Flow in Microchannel With Pillars. , 2008, , .		0
85	Exercise and postprandial lipaemia: effects on peripheral vascular function, oxidative stress and gastrointestinal transit. <i>Lipids in Health and Disease</i> , 2007, 6, 30.	1.2	42
86	Analysis of excitation processes and electron temperature changes from spectral data in a dc micro plasma discharge. <i>Plasma Sources Science and Technology</i> , 2004, 13, 576-581.	1.3	10
87	Surface Modification of Silver Thin Films Using Low Power Chlorine Plasmas. <i>Electrochemical and Solid-State Letters</i> , 2001, 4, H31.	2.2	7
88	The wear effect on microstructure of DLC films PECVD-deposited on Al <sub>2</sub> O <sub>3</sub> :TiC substrates—a confocal micro-Raman study. <i>Thin Solid Films</i> , 1999, 357, 159-165.	0.8	15
89	Wrist and Arm Body Surface Bipolar ECG Leads Signal and Sensor Study for Long-term Rhythm Monitoring. , 0, , .		7
90	Novel non-invasive Pressure-Volume Loop measurement for local Pulse Wave Velocity estimation. , 0, , .		1

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91	The Effects of 0.67 Hz High-pass Filtering on the Spatial QRS-T Angle. , 0, , .		3
92	Characterizing Dry Electrodes Impedance by Parametric Modeling for Arm Wearable Long-term Cardiac Rhythm Monitoring. , 0, , .		3
93	Cardiac-gated Slit Lamp Videography as a Novel Approach to Assessing a Microcirculatory Network. , 0, , .		0