Alistair L Mcewan

List of Publications by Year
in descending order

142 papers	1,889 citations	394390 19 h-index	395678 33 g-index
150 all docs	150 docs citations	150 times ranked	2081 citing authors

#	Article	IF	Citations
1	An efficient and fast multi-band focused bioimpedance solution with EIT-based reconstruction for pulmonary embolism assessment: a simulation study from massive to segmental blockage. Physiological Measurement, 2022, 43, 025003.	2.1	0
2	Neonatal Bowel Sound Detection Using Convolutional Neural Network and Laplace Hidden Semi-Markov Model. IEEE/ACM Transactions on Audio Speech and Language Processing, 2022, 30, 1853-1864.	5.8	18
3	Optimizing Impedance Change Measurement During Radiofrequency Ablation Enables More Accurate Characterization of Lesion Formation. JACC: Clinical Electrophysiology, 2021, 7, 471-481.	3.2	5
4	Estimating Homogeneous Reference Frame for Absolute Electrical Impedance Tomography Through Measurements and Scale Feature. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	4.7	7
5	Unsupervised Evaluation and Optimization for Electrical Impedance Tomography. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	4.7	6
6	Model Development for Fat Mass Assessment Using Near-Infrared Reflectance in South African Infants and Young Children Aged 3â€"24 Months. Sensors, 2021, 21, 2028.	3.8	0
7	Seizure Susceptibility Prediction in Uncontrolled Epilepsy. Frontiers in Neurology, 2021, 12, 721491.	2.4	8
8	Blood Pressure in Critically Ill Children: Exploratory Analyses of Concurrent Invasive and Noninvasive Measurements. , 2021, 3, e0586.		4
9	Augmentative and Alternative Communication with Eye-gaze Technology and Augmented Reality: Reflections from Engineers, People with Cerebral Palsy and Caregivers. , 2021, , .		1
10	Cardiac radiofrequency ablation tracking using electrical impedance tomography. Biomedical Physics and Engineering Express, 2020, 6, 015015.	1.2	2
11	The region-of-interest based measurement selection process for electrical impedance tomography in radiofrequency cardiac ablation with known anatomical information. Biomedical Signal Processing and Control, 2020, 56, 101706.	5.7	10
12	Electrical Impedance Tomography for monitoring cardiac radiofrequency ablation: a scoping review of an emerging technology. Medical Engineering and Physics, 2020, 84, 36-50.	1.7	15
13	Differences in Power Spectral Densities and Phase Quantities Due to Processing of EEG Signals. Sensors, 2020, 20, 6285.	3.8	17
14	Can recurrent neural network enhanced EEGNet improve the accuracy of ERP classification task? An exploration and a discussion. Health and Technology, 2020, 10, 979-995.	3.6	10
15	Derivation of Respiratory Metrics in Health and Asthma. Sensors, 2020, 20, 7134.	3.8	5
16	Irrigated Microwave Catheter Ablation Can Create Deep Ventricular Lesions Through Epicardial Fat With Relative Sparing of Adjacent Coronary Arteries. Circulation: Arrhythmia and Electrophysiology, 2020, 13, e008251.	4.8	2
17	A Feasible Classification Algorithm for Event-Related Potential (ERP) Based Brain-Computer-Interface (BCI) from IFMBE Scientific Challenge Dataset. IFMBE Proceedings, 2020, , 1861-1868.	0.3	4
18	Derivation of Breathing Metrics From a Photoplethysmogram at Rest: Machine Learning Methodology. JMIR MHealth and UHealth, 2020, 8, e13737.	3.7	9

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19	The effect of caffeine loading on cerebral autoregulation in preterm infants. Acta Paediatrica, International Journal of Paediatrics, 2019, 108, 436-442.	1.5	5
20	T-piece resuscitators: how do they compare?. Archives of Disease in Childhood: Fetal and Neonatal Edition, 2019, 104, F122-F127.	2.8	25
21	Microelectrode array electrical impedance tomography for fast functional imaging in the thalamus. NeuroImage, 2019, 198, 44-52.	4.2	9
22	Fully Open-Access Passive Dry Electrodes BIOADC: Open-Electroencephalography (EEG) Re-Invented. Sensors, 2019, 19, 772.	3.8	5
23	Experimental Validation of the Multiphysics Modelling of Radiofrequency Ablation using Physical Phantom. , 2019, 2019, 154-157.		2
24	Transcatheter microwave ablation can deliver deep and circumferential perivascular nerve injury without significant arterial injury to provide effective renal denervation. Journal of Hypertension, 2019, 37, 2083-2092.	0.5	6
25	Cardiovascular impact of intravenous caffeine in preterm infants. Acta Paediatrica, International Journal of Paediatrics, 2019, 108, 423-429.	1.5	14
26	Minimization of the Wilsonâ€™s Central Terminal voltage potential via a genetic algorithm. BMC Research Notes, 2018, 11, 915.	1.4	5
27	Feature Analysis for Discrimination of Motor Unit Action Potentials. , 2018, , .		0
28	THE HISTOLOGICAL GRADE OF THERMAL RENAL NERVE INJURY IS INFLUENCED BY PROXIMITY TO HEATING AND COOLING SOURCES. Journal of the American College of Cardiology, 2018, 71, A1230.	2.8	0
29	On the Einthoven Triangle: A Critical Analysis of the Single Rotating Dipole Hypothesis. Sensors, 2018, 18, 2353.	3.8	18
30	An anthropometric approach to characterising neonatal morbidity and body composition, using air displacement plethysmography as a criterion method. PLoS ONE, 2018, 13, e0195193.	2.5	5
31	Respiratory Artefact Removal in Forced Oscillation Measurements: A Machine Learning Approach. IEEE Transactions on Biomedical Engineering, 2017, 64, 1679-1687.	4.2	11
32	Freezing of Gait Detection in Parkinson's Disease: A Subject-Independent Detector Using Anomaly Scores. IEEE Transactions on Biomedical Engineering, 2017, 64, 2719-2728.	4.2	58
33	An anomaly detection technique in wearable wireless monitoring systems for studies of gait freezing in Parkinson's disease. , 2017, , .		5
34	Prediction of intraventricular haemorrhage in preterm infants using time series analysis of blood pressure and respiratory signals. Scientific Reports, 2017, 7, 46538.	3.3	12
35	Neopuff T-piece resuscitator: does device design affect delivered ventilation?. Archives of Disease in Childhood: Fetal and Neonatal Edition, 2017, 102, F220-F224.	2.8	9
36	Feasibility study of imaging fast neural activity in retinal tissue using Electrical Impedance Tomography. , 2017, 2017, 529-532.		0

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37	Apparent backscatter of cancellous bone from fundamental and second harmonics using an ultrasound imaging system. , 2017, , .		0
38	Near infrared spectroscopy for body fat sensing in neonates: quantitative analysis by GAMOS simulations. BioMedical Engineering OnLine, 2017, 16, 14.	2.7	13
39	Using a recurrent neural network to derive tidal volume from a photoplethsmograph. , 2017, , .		3
40	A novel hardware implementation for detecting respiration rate using photoplethysmography. , 2017, 2017, 726-729.		0
41	Semi-automated nasal PAP mask sizing using facial photographs. , 2017, 2017, 1214-1217.		7
42	Identification of electrical impedance tomography as simulation system emulating the electroreceptive system in aquatic animals. , 2017, , .		0
43	Wearable healthcare systems: A single channel accelerometer based anomaly detector for studies of gait freezing in Parkinson's disease. , 2017, , .		9
44	A near-infrared interactance model for the estimation of infant body composition. , 2017, , .		1
45	Motivations and Key Features for a Wearable Device for Continuous Monitoring of Breathing: A Web-Based Survey. JMIR Biomedical Engineering, 2017, 2, e1.	1.2	14
46	Transcatheter non-contact microwave ablation may enable circumferential renal artery denervation while sparing the vessel intima and media. EuroIntervention, 2017, 12, e1907-e1915.	3.2	8
47	Giga-Ohm High-Impedance FET Input Amplifiers for Dry Electrode Biosensor Circuits and Systems. , 2017, , 165-194.		1
48	On the â€œZero of Potential of the Electric Field Produced by the Heart Beatâ€: A Machine Capable of Estimating this Underlying Persistent Error in Electrocardiography. Machines, 2016, 4, 18.	2.2	5
49	Reducing false arrhythmia alarms in the ICU using multimodal signals and robust QRS detection. Physiological Measurement, 2016, 37, 1340-1354.	2.1	13
50	Improvement of near infrared body fat sensing at 45-degree source-detector position angle. , 2016, , .		2
51	Feature Engineering and Supervised Learning Classifiers for Respiratory Artefact Removal in Lung Function Tests. , 2016, , .		3
52	Combined external and internal electrodes in EIT for deep changes: A simulation study. , 2016, , .		1
53	Lung surface deformation prediction from spirometry measurement and chest wall surface motion. Medical Physics, 2016, 43, 5493-5502.	3.0	8
54	Logistic regression models for predicting intraventricular haemorrhage in preterm infants using respiratory and blood pressure signals. , 2016, , .		0

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55	Coupling bio-logging with nutritional geometry to reveal novel insights into the foraging behaviour of a plunge-diving marine predator. New Zealand Journal of Marine and Freshwater Research, 2016, 50, 418-432.	2.0	24
56	Instrumented flexible active electrode matrix suitable for human-computer interface applications. Biomedical Physics and Engineering Express, 2016, 2, 035020.	1.2	1
57	Length-free near infrared measurement of newborn malnutrition. Scientific Reports, 2016, 6, 36052.	3.3	9
58	Circuit Impedance Could Be a Crucial Factor Influencing Radiofrequency Ablation Efficacy and Safety: A Myocardial Phantom Study of the Problem and Its Correction. Journal of Cardiovascular Electrophysiology, 2016, 27, 351-357.	1.7	29
59	Design Considerations in Development of a Mobile Health Intervention Program: The TEXT ME and TEXTMEDS Experience. JMIR MHealth and UHealth, 2016, 4, e127.	3.7	20
60	ON MASS SENSING USING MICRO/NANO RESONATORS - APPROACHES, CHALLENGES AND DIRECTIONS. International Journal on Smart Sensing and Intelligent Systems, 2016, 9, 1-20.	0.7	4
61	A Digital Video System for Observing and Recording Occultations. Publications of the Astronomical Society of Australia, 2015, 32, .	3.4	9
62	A Novel Microwave Catheter Can Perform Noncontact Circumferential Endocardial Ablation in a Model of Pulmonary Vein Isolation. Journal of Cardiovascular Electrophysiology, 2015, 26, 799-804.	1.7	14
63	Real‑time conductivity imaging of temperature and tissue property changes during radiofrequency ablation: An ex vivo model using weighted frequency difference. Bioelectromagnetics, 2015, 36, 277-286.	1.6	19
64	Reducing false arrhythmia alarms in the ICU by Hilbert QRS detection. , 2015, , .		9
65	How to test bioinformatics software?. Biophysical Reviews, 2015, 7, 343-352.	3.2	16
66	Acoustic Signal Emission Monitoring as a Novel Method to Predict Steam Pops During Radiofrequency Ablation: Preliminary Observations. Journal of Cardiovascular Electrophysiology, 2015, 26, 440-447.	1.7	8
67	Frequency-dependent simulation of volume conduction in a linear model of the implanted cochlea. , 2015, , .		3
68	Perfusion redistribution after a pulmonary-embolism-like event with contrast enhanced EIT. Physiological Measurement, 2015, 36, 1297-1309.	2.1	23
69	Verifying Timestamps of Occultation Observation Systems. Publications of the Astronomical Society of Australia, 2015, 32, .	3.4	8
70	Magnetic guidance versus manual control: comparison of radiofrequency lesion dimensions and evaluation of the effect of heart wall motion in a myocardial phantom. Journal of Interventional Cardiac Electrophysiology, 2015, 44, 1-8.	1.3	27
71	Design of an intra-operative imaging system for the cochlear implant. , 2014, 2014, 2448-51.		1
72	Unsupervised discrimination of motor unit action potentials using spectrograms. , 2014, 2014, 1-4.		8

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73	Simulation-based optimization of a near-infrared spectroscopic subcutaneous fat thickness measuring device. , 2014, 2014, 510-3.		2
74	Design of a microscopic electrical impedance tomography system for 3D continuous non-destructive monitoring of tissue culture. BioMedical Engineering OnLine, 2014, 13, 142.	2.7	17
75	Evaluation of a multi-electrode bioimpedance spectroscopy tensor probe to detect the anisotropic conductivity spectra of biological tissues. Measurement Science and Technology, 2014, 25, 075702.	2.6	19
76	Improvements and artifact analysis in conductivity images using multiple internal electrodes. Physiological Measurement, 2014, 35, 1125-1135.	2.1	6
77	Electrical Impedance Tomography for assessing Ventilation/Perfusion mismatch for Pulmonary Embolism detection without interruptions in respiration. , 2014, 2014, 6068-71.		3
78	Investigating the utility of in vivo bio-impedance spectroscopy for the assessment of post-ischemic myocardial tissue. , 2014, 2014, 1111-4.		1
79	Low-cost near-infrared measurement of subcutaneous fat for newborn malnutrition. , 2014, , .		3
80	Electrogram-Gated Radiofrequency Ablations With Duty Cycle Power Delivery Negate Effects of Ablation Catheter Motion. Circulation: Arrhythmia and Electrophysiology, 2014, 7, 920-928.	4.8	12
81	Continuous Nondestructive Monitoring Method Using the Reconstructed Three-Dimensional Conductivity Images via GREIT for Tissue Engineering. Journal of Applied Mathematics, 2014, 2014, 1-11.	0.9	4
82	Electrical impedance imaging system using FPGAs for flexibility and interoperability. BioMedical Engineering OnLine, 2014, 13, 126.	2.7	15
83	Open platform, 32â€channel, portable, dataâ€logger with 32ÂPGA control lines for wearable medical device development. Electronics Letters, 2014, 50, 1127-1129.	1.0	12
84	Multi-Frequency Electrical Impedance Tomography System With Automatic Self-Calibration for Long-Term Monitoring. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 119-128.	4.0	101
85	Development of electrical impedance tomography of microwave ablation. Proceedings of SPIE, 2014, , .	0.8	1
86	Feasibility of magnetic resonance electrical impedance tomography (MREIT) conductivity imaging to evaluate brain abscess lesion:<i>In vivo</i>canine model. Journal of Magnetic Resonance Imaging, 2013, 38, 189-197.	3.4	23
87	Investigating the role of capacitive coupling between the operating table and the return electrode of an electrosurgery unit in the modification of the current density distribution within the patientsâ€™ body. BioMedical Engineering OnLine, 2013, 12, 80.	2.7	3
88	An Amplitude-to-Time Conversion Technique Suitable for Multichannel Data Acquisition and Bioimpedance Imaging. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 349-354.	4.0	9
89	Towards true unipolar bio-potential recording: a preliminary result for ECG. Physiological Measurement, 2013, 34, N1-N7.	2.1	21
90	Preliminary Results on Different Impedance Contrast Agents for Pulmonary Perfusion Imaging with Electrical Impedance Tomography. Journal of Physics: Conference Series, 2013, 434, 012079.	0.4	3

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91	Unipolar ECG circuits: Towards more precise cardiac event identification. , 2013, , .		4
92	High Spatial Resolution Thermal Mapping of Radiofrequency Ablation Lesions Using a Novel Thermochromic Liquid Crystal Myocardial Phantom. Journal of Cardiovascular Electrophysiology, 2013, 24, 1278-1286.	1.7	15
93	Towards true unipolar ECG recording without the Wilson central terminal (preliminary results). Physiological Measurement, 2013, 34, 991-1012.	2.1	18
94	Electrode-Skin contact impedance: In vivo measurements on an ovine model. Journal of Physics: Conference Series, 2013, 434, 012023.	0.4	12
95	A Local Region of Interest Imaging Method for Electrical Impedance Tomography with Internal Electrodes. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-9.	1.3	19
96	Design and assessment of a low-cost, electromyographically controlled, prosthetic hand. Medical Devices: Evidence and Research, 2013, 6, 97.	0.8	15
97	Bioimpedance spectroscopy tensor probe for anisotropic measurements. Electronics Letters, 2012, 48, 1253.	1.0	12
98	Active electrode design suitable for simultaneous EIT and EEG. Electronics Letters, 2012, 48, 1583-1584.	1.0	9
99	Measurement of retinal arteriolar diameters from auto scale phase congruency with fuzzy weighting and L1 Regularization. , 2012, 2012, 1434-7.		0
100	Investigating the role of combined acoustic-visual feedback in one-dimensional synchronous brain computer interfaces, a preliminary study. Medical Devices: Evidence and Research, 2012, 5, 81.	0.8	12
101	Modelling of an Oesophageal Electrode for Cardiac Function Tomography. Computational and Mathematical Methods in Medicine, 2012, 2012, 1-10.	1.3	10
102	Comparison of frequency difference reconstruction algorithms for the detection of acute stroke using EIT in a realistic head-shaped tank. Physiological Measurement, 2012, 33, 767-786.	2.1	45
103	Near Infrared Spectroscopy in Optical Coherence Tomography. Journal of Near Infrared Spectroscopy, 2012, 20, 237-247.	1.5	16
104	Electrode contact impedance sensitivity to variations in geometry. Physiological Measurement, 2012, 33, 817-830.	2.1	38
105	Detection of temporal lobe seizures and identification of lateralisation from audified EEG. Clinical Neurophysiology, 2012, 123, 1714-1720.	1.5	20
106	High density trans-admittance mammography development and preliminary phantom tests. BioMedical Engineering OnLine, 2012, 11, 75.	2.7	5
107	Pregnancy detection and monitoring in cattle via combined foetus electrocardiogram and phonocardiogram signal processing. BMC Veterinary Research, 2012, 8, 164.	1.9	10
108	A review on electrical impedance tomography for pulmonary perfusion imaging. Physiological Measurement, 2012, 33, 695-706.	2.1	99

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109	FPGA implementation of biologically-inspired auto-associative memory. Electronics Letters, 2012, 48, 148.	1.0	6
110	Evaluation of different stimulation and measurement patterns based on internal electrode: Application in cardiac impedance tomography. Computers in Biology and Medicine, 2012, 42, 1122-1132.	7.0	16
111	Performance evaluation of wideband bio-impedance spectroscopy using constant voltage source and constant current source. Measurement Science and Technology, 2012, 23, 105703.	2.6	31
112	L1 regularization method in electrical impedance tomography by using the L1-curve (Pareto frontier) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	4.2	70
113	Upscaling Ambisonic sound scenes using compressed sensing techniques. , 2011, , .		29
114	Assessment of Alterations in the Electrical Impedance of Muscle After Experimental Nerve Injury via Finite-Element Analysis. IEEE Transactions on Biomedical Engineering, 2011, 58, 1585-1591.	4.2	37
115	Edge enhancement for retinal vasculature caliber evaluation in prediction of cardiovascular disease. , 2011, , .		2
116	A programmable axonal propagation delay circuit for time-delay spiking neural networks. , 2011, , .		9
117	Feasibility of electrical impedance tomography in haemorrhagic stroke treatment using adaptive mesh. Journal of Physics: Conference Series, 2010, 224, 012065.	0.4	5
118	Spread spectrum EIT by code division multiplexing. Journal of Physics: Conference Series, 2010, 224, 012143.	0.4	4
119	Suitability of the INPHAZE impedance analyzer for Bio-impedance and EIT. Journal of Physics: Conference Series, 2010, 224, 012014.	0.4	0
120	Non-invasive Electronic Biosensor Circuits and Systems. , 2010, , .		4
121	A method for removing artefacts from continuous EEG recordings during functional electrical impedance tomography for the detection of epileptic seizures. Physiological Measurement, 2010, 31, S57-S72.	2.1	11
122	A log-domain implementation of the Mihalas-Niebur neuron model. , 2010, , .		29
123	A log-domain implementation of the Izhikevich neuron model. , 2010, , .		45
124	A comparison between compressed sensing algorithms in Electrical Impedance Tomography. , 2010, 2010, 3109-12.		23
125	Dry electrode bio-potential recordings. , 2010, 2010, 6493-6.		24
126	A comparison between new L1 minimization algorithms in Electrical Impedance Tomography using the Pareto Curve. , 2010, , .		1

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127	Wearable dry sensors with bluetooth connection for use in remote patient monitoring systems. Studies in Health Technology and Informatics, 2010, 161, 57-65.	0.3	16
128	A comparison of two phase measurement techniques for Magnetic Impedance Tomography. IFMBE Proceedings, 2009, , 4-6.	0.3	0
129	Code-Division-Multiplexed Electrical Impedance Tomography Spectroscopy. IEEE Transactions on Biomedical Circuits and Systems, 2009, 3, 332-338.	4.0	20
130	Calculating Concurrency Using Circus. Chapman & Hall/CRC Computational Science, 2008, , .	0.5	0
131	Analysis of resting noise characteristics of three EIT systems in order to compare suitability for time difference imaging with scalp electrodes during epileptic seizures. Physiological Measurement, 2007, 28, S217-S236.	2.1	19
132	Electrode Circuits for Frequency- and Code-Division Multiplexed Impedance Tomography. , 2007, , .		4
133	Battery powered and wireless Electrical Impedance Tomography Spectroscopy Imaging using Bluetooth. , 2007, , 798-801.		3
134	Evaluation of the performance of the Multifrequency Electrical Impedance Tomography (MFEIT) intended for imaging acute stroke. , 2007, , 543-547.		3
135	Analysis of resting noise characteristics of three EIT systems in order to compare suitability for time difference imaging with scalp electrodes during epilepsy. , 2007, , 568-571.		3
136	Efficient, ROM-less DDFS using non-linear interpolation and non-linear DAC. Analog Integrated Circuits and Signal Processing, 2006, 48, 231-237.	1.4	5
137	Factors limiting the application of electrical impedance tomography for identification of regional conductivity changes using scalp electrodes during epileptic seizures in humans. Physiological Measurement, 2006, 27, S163-S174.	2.1	67
138	Design and calibration of a compact multi-frequency EIT system for acute stroke imaging. Physiological Measurement, 2006, 27, S199-S210.	2.1	102
139	Identification of a suitable current waveform for acute stroke imaging. Physiological Measurement, 2006, 27, S211-S219.	2.1	18
140	Direct Digital-Frequency Synthesis by Analog Interpolation. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 2006, 53, 1294-1298.	2.2	25
141	An Analogue VLSI Implementation of the Meddis Inner Hair Cell Model. Eurasip Journal on Advances in Signal Processing, 2003, 2003, 1.	1.7	6
142	A direct digital frequency synthesis system for low power communications. , 0, , .		3