

Orjan G Martinsen

List of Publications by Year in descending order

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105
papers

2,499
citations

218677

26
h-index

223800

46
g-index

111
all docs

111
docs citations

111
times ranked

2305
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical properties of acupuncture points and meridians: A systematic review. <i>Bioelectromagnetics</i> , 2008, 29, 245-256.	1.6	204
2	Sources of error in tetrapolar impedance measurements on biomaterials and other ionic conductors. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 9-14.	2.8	151
3	Electrical Characterization of Acupuncture Points: Technical Issues and Challenges. <i>Journal of Alternative and Complementary Medicine</i> , 2007, 13, 817-824.	2.1	121
4	Measuring depth depends on frequency in electrical skin impedance measurements. <i>Skin Research and Technology</i> , 1999, 5, 179-181.	1.6	93
5	Electrode Polarization Impedance in Weak NaCl Aqueous Solutions. <i>IEEE Transactions on Biomedical Engineering</i> , 2005, 52, 2093-2099.	4.2	93
6	Impedance-based tissue discrimination for needle guidance. <i>Physiological Measurement</i> , 2009, 30, 129-140.	2.1	83
7	A study on electrode gels for skin conductance measurements. <i>Physiological Measurement</i> , 2010, 31, 1395-1410.	2.1	82
8	Cole Electrical Impedance Model—A Critique and an Alternative. <i>IEEE Transactions on Biomedical Engineering</i> , 2005, 52, 132-135.	4.2	81
9	Electrical Methods for Skin Moisture Assessment. <i>Skin Pharmacology and Physiology</i> , 1995, 8, 237-245.	2.5	61
10	The development of a software program for analyzing spontaneous and externally elicited skin conductance changes in infants and adults. <i>Clinical Neurophysiology</i> , 2000, 111, 1889-1898.	1.5	61
11	Dielectric properties of some keratinised tissues. Part 1:Stratum corneum and nailin situ. <i>Medical and Biological Engineering and Computing</i> , 1997, 35, 172-176.	2.8	59
12	Non-invasive measurements of post-mortem changes in dielectric properties of haddock muscle – a pilot study. <i>Journal of Food Engineering</i> , 2000, 43, 189-192.	5.2	59
13	Electrical measurement of sweat activity. <i>Physiological Measurement</i> , 2008, 29, S407-S415.	2.1	48
14	Memristive model of electro-osmosis in skin. <i>Physical Review E</i> , 2011, 83, 031916.	2.1	46
15	Bioimpedance monitoring of 3D cell culturing—Complementary electrode configurations for enhanced spatial sensitivity. <i>Biosensors and Bioelectronics</i> , 2015, 63, 72-79.	10.1	44
16	Facts and Myths about Electrical Measurement of Stratum corneum Hydration State. <i>Dermatology</i> , 2001, 202, 87-89.	2.1	43
17	Skin Conductance Changes During the First Year of Life in Full-Term Infants. <i>Pediatric Research</i> , 2002, 52, 837-843.	2.3	43
18	Comprehensive study of buffer systems and local pH effects in electromembrane extraction. <i>Analytica Chimica Acta</i> , 2017, 984, 116-123.	5.4	43

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19	Utilizing Characteristic Electrical Properties of the Epidermal Skin Layers to Detect Fake Fingers in Biometric Fingerprint Systems—A Pilot Study. IEEE Transactions on Biomedical Engineering, 2007, 54, 891-894.	4.2	41
20	Electrodermal responses to discrete stimuli measured by skin conductance, skin potential, and skin susceptance. Skin Research and Technology, 2018, 24, 108-116.	1.6	40
21	Detectability of the degree of freeze damage in meat depends on analytic-tool selection. Meat Science, 2019, 152, 8-19.	5.5	39
22	Conductivity Enhancement in Carbon Nanocone Adhesive by Electric Field Induced Formation of Aligned Assemblies. ACS Applied Materials & Interfaces, 2011, 3, 378-384.	8.0	34
23	Gravimetric Method for <i>in Vitro</i> Calibration of Skin Hydration Measurements. IEEE Transactions on Biomedical Engineering, 2008, 55, 728-732.	4.2	33
24	Waveform difference between skin conductance and skin potential responses in relation to electrical and evaporative properties of skin. Psychophysiology, 2013, 50, 1070-1078.	2.4	30
25	Electrical impedance myography: A critical review and outlook. Clinical Neurophysiology, 2021, 132, 338-344.	1.5	30
26	The non-linear electrical properties of human skin make it a generic memristor. Scientific Reports, 2018, 8, 15806.	3.3	29
27	Electrodermal activity by DC potential and AC conductance measured simultaneously at the same skin site. Skin Research and Technology, 2011, 17, 26-34.	1.6	28
28	Polymer coated mucoadhesive liposomes intended for the management of xerostomia. International Journal of Pharmaceutics, 2017, 527, 72-78.	5.2	26
29	Electrical Impedance of Stainless Steel Needle Electrodes. Annals of Biomedical Engineering, 2010, 38, 2371-2382.	2.5	25
30	Early detection of cardiac ischemia using a conductometric pCO ₂ sensor: real-time drift correction and parameterization. Physiological Measurement, 2010, 31, 1241-1255.	2.1	25
31	Conductivity enhancement of silver filled polymer composites through electric field alignment. Composites Science and Technology, 2012, 72, 1841-1847.	7.8	25
32	Non-invasive prediction of blood glucose trends during hypoglycemia. Analytica Chimica Acta, 2019, 1052, 37-48.	5.4	24
33	New Method for Separation of Electrode Polarization Impedance from Measured Tissue Impedance. Open Biomedical Engineering Journal, 2011, 5, 8-13.	0.5	24
34	Line patterns in the mosaic electrical properties of human skin-a cross-correlation study. IEEE Transactions on Biomedical Engineering, 2001, 48, 731-734.	4.2	23
35	<i>in vivo</i> characterization of ischemic small intestine using bioimpedance measurements. Physiological Measurement, 2016, 37, 257-275.	2.1	22
36	Low Frequency Dielectric Dispersion of Microporous Membranes in Electrolyte Solution. Journal of Colloid and Interface Science, 1998, 199, 107-110.	9.4	21

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37	Evaluation of algorithms for calculating bioimpedance phase angle values from measured whole-body impedance modulus. <i>Physiological Measurement</i> , 2011, 32, 755-765.	2.1	21
38	Dielectric properties of some keratinised tissues. Part 2: Human hair. <i>Medical and Biological Engineering and Computing</i> , 1997, 35, 177-180.	2.8	20
39	A new biomedical sensor for measuring PCO ₂ . <i>Physiological Measurement</i> , 2004, 25, 421-436.	2.1	20
40	Miniaturization of a biomedical gas sensor. <i>Physiological Measurement</i> , 2004, 25, 1511-1522.	2.1	20
41	Behavior of carbon cone particle dispersions in electric and magnetic fields. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2009, 339, 211-216.	4.7	20
42	An impedance method for spatial sensing of 3D cell constructs towards applications in tissue engineering. <i>Analyst</i> , 2015, 140, 6079-6088.	3.5	19
43	Authors reply to comments on "Line patterns in the mosaic electric properties of human skin-a cross correlation study". <i>IEEE Transactions on Biomedical Engineering</i> , 2003, 50, 114.	4.2	18
44	Comparison between the AC and DC measurement of electrodermal activity. <i>Psychophysiology</i> , 2017, 54, 374-385.	2.4	17
45	A Recurrent Neural-Network-Based Real-Time Dynamic Model for Soft Continuum Manipulators. <i>Frontiers in Robotics and AI</i> , 2021, 8, 631303.	3.2	17
46	Water sorption and electrical properties of a human nail. <i>Skin Research and Technology</i> , 2008, 14, 142-146.	1.6	16
47	Improved Estimation of Sweating Based on Electrical Properties of Skin. <i>Annals of Biomedical Engineering</i> , 2013, 41, 1074-1083.	2.5	16
48	Impedance Spectroscopic Characterisation of Porosity in 3D Cell Culture Scaffolds with Different Channel Networks. <i>Electroanalysis</i> , 2015, 27, 193-199.	2.9	16
49	Influence of Relative Humidity on Electrodermal Levels and Responses. <i>Skin Pharmacology and Physiology</i> , 2018, 31, 298-307.	2.5	15
50	Electrical Potential of Acupuncture Points: Use of a Noncontact Scanning Kelvin Probe. <i>Evidence-based Complementary and Alternative Medicine</i> , 2012, 2012, 1-8.	1.2	12
51	Bioimpedance-Based Respiration Monitoring With a Defibrillator. <i>IEEE Transactions on Biomedical Engineering</i> , 2014, 61, 1858-1862.	4.2	12
52	Model-based filtering for artifact and noise suppression with state estimation for electrodermal activity measurements in real time. , 2015, 2015, 2750-3.		12
53	Evaluation of Hypoglycaemia with Non-Invasive Sensors in People with Type 1 Diabetes and Impaired Awareness of Hypoglycaemia. <i>Scientific Reports</i> , 2018, 8, 14722.	3.3	12
54	Information can be stored in the human skin memristor which has non-volatile memory. <i>Scientific Reports</i> , 2019, 9, 19260.	3.3	12

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55	Simultaneous measurement of electrodermal activity components correlated with age-related differences. <i>Journal of Biological Physics</i> , 2020, 46, 177-188.	1.5	12
56	A finite element model of needle electrode spatial sensitivity. <i>Physiological Measurement</i> , 2010, 31, 1369-1379.	2.1	11
57	Sorption Properties of the Human Stratum Corneum. <i>Skin Pharmacology and Physiology</i> , 2011, 24, 190-198.	2.5	11
58	Ischemic small intestineâ€™ <i>in vivo</i> versus <i>ex vivo</i> bioimpedance measurements. <i>Physiological Measurement</i> , 2017, 38, 715-728.	2.1	11
59	A multiparameter model for non-invasive detection of hypoglycemia. <i>Physiological Measurement</i> , 2019, 40, 085004.	2.1	11
60	Towards exhaustive electromembrane extraction under stagnant conditions. <i>Analytica Chimica Acta</i> , 2020, 1104, 1-9.	5.4	11
61	Conductometric analysis in bio-applications: A universal impedance spectroscopy-based approach using modified electrodes. <i>Sensors and Actuators B: Chemical</i> , 2015, 212, 544-550.	7.8	10
62	Determination of tissue type surrounding a needle tip by electrical bioimpedance. , 2008, 2008, 2285-6.		9
63	Comparison of four different FIM configurationsâ€™ a simulation study. <i>Physiological Measurement</i> , 2014, 35, 1067-1082.	2.1	9
64	Water sorption properties of HM-pectin and liposomes intended to alleviate dry mouth. <i>International Journal of Pharmaceutics</i> , 2016, 506, 201-206.	5.2	9
65	Invasive Electrical Impedance Tomography for Blood Vessel Detection. <i>Open Biomedical Engineering Journal</i> , 2010, 4, 135-137.	0.5	9
66	A new approach for an estimation of the equilibrium stratum corneum water content. <i>Skin Research and Technology</i> , 2010, 16, 142-145.	1.6	8
67	Bioimpedance for pain monitoring during cutaneous photodynamic therapy: Preliminary study. <i>Photodiagnosis and Photodynamic Therapy</i> , 2011, 8, 307-313.	2.6	8
68	Applying the Kelvin probe to biological tissues: Theoretical and computational analyses. <i>Physical Review E</i> , 2012, 85, 061901.	2.1	8
69	Estimation of skin conductance at low frequencies using measurements at higher frequencies for EDA applications. <i>Physiological Measurement</i> , 2014, 35, 1011-1018.	2.1	8
70	Small intestinal ischemia and reperfusionâ€™ bioimpedance measurements. <i>Physiological Measurement</i> , 2018, 39, 025001.	2.1	8
71	Electrosurgery and Temperature Increase in Tissue With a Passive Metal Implant. <i>Frontiers in Surgery</i> , 2019, 6, 8.	1.4	8
72	Dynamic modeling of soft continuum manipulators using lie group variational integration. <i>PLoS ONE</i> , 2020, 15, e0236121.	2.5	8

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73	Estimation of In Vivo Water Content of the Stratum Corneum from Electrical Measurements. Open Biomedical Engineering Journal, 2009, 3, 8-12.	0.5	8
74	Assessment of skin permeability to topically applied drugs by skin impedance and admittance. Physiological Measurement, 2017, 38, N138-N150.	2.1	7
75	The concept of transfer impedance in bioimpedance measurements. IFMBE Proceedings, 2009, , 1078-1079.	0.3	7
76	Universality of AC conductance in human hair. Biomedical Physics and Engineering Express, 2016, 2, 027002.	1.2	6
77	Instrumentation, electrode choice and challenges in human skin memristor measurement. , 2017, 2017, 1844-1848.		6
78	Simulation based comparison between a transversal and a tangential memristor model with a capacitance in parallel. PLoS ONE, 2019, 14, e0221533.	2.5	6
79	Measuring Blood Pulse Wave Velocity with Bioimpedance in Different Age Groups. Sensors, 2019, 19, 850.	3.8	6
80	Exploring bioimpedance instrumentation for the characterization of open tubular liquid chromatography columns. Journal of Chromatography A, 2018, 1534, 195-200.	3.7	5
81	Noise properties of the 3-electrode skin admittance measuring circuit. IFMBE Proceedings, 2009, , 720-722.	0.3	5
82	Detection of sympathoadrenal discharge by parameterisation of skin conductance and ECG measurement. , 2017, 2017, 3997-4000.		4
83	Monitoring the quality of frozen-thawed venous segments using bioimpedance spectroscopy. Physiological Measurement, 2020, 41, 044008.	2.1	4
84	Water gradient and calibration of stratum corneum hydration measurements. , 2007, , 158-160.		4
85	The Microfiltrimeter (MicroFM): a new filtration device for the assessment of less deformable erythrocyte subpopulations. Scandinavian Journal of Clinical and Laboratory Investigation, 2004, 64, 108-112.	1.2	3
86	Skin impedance measurements support ex-vivo penetration studies for topical applied drugs. Biomedizinische Technik, 2013, 58 Suppl 1, .	0.8	3
87	Bioimpedance measurements of temporal changes in beating hearts. Biomedical Physics and Engineering Express, 2016, 2, 065015.	1.2	3
88	Skin Electrical Resistance as a Diagnostic and Therapeutic Biomarker of Breast Cancer Measuring Lymphatic Regions. IEEE Access, 2021, 9, 152322-152332.	4.2	3
89	Embedded instrumentation for skin admittance measurement. , 2008, 2008, 2373-6.		2
90	Effect of a spherical object in 4 electrode Focused Impedance Method (FIM): measurement and simulation. Journal of Physics: Conference Series, 2013, 434, 012009.	0.4	2

#	ARTICLE	IF	CITATIONS
91	Authors reply. IEEE Transactions on Biomedical Engineering, 2001, 48, 945-946.	4.2	1
92	Basic principles for evaluation of less deformable erythrocyte subpopulations with the Microfiltrimeter. Scandinavian Journal of Clinical and Laboratory Investigation, 2004, 64, 169-174.	1.2	1
93	Comments on "Algorithm for Tissue Ischemia Estimation Based on Electrical Impedance Spectroscopy". IEEE Transactions on Biomedical Engineering, 2007, 54, 344-344.	4.2	1
94	Stratum corneum in vivo water content from TEWL-measurements. , 2008, 2008, 3166-9.		1
95	The Initial Systolic Time Interval in patients with spinal cord injury measured with impedance cardiography. Journal of Physics: Conference Series, 2012, 407, 012025.	0.4	1
96	Wireless vital signs from a life-supporting medical device exposed to electromagnetic disturbance. Minimally Invasive Therapy and Allied Technologies, 2014, 23, 341-349.	1.2	1
97	Effects of stray capacitance to ground in three electrode monopolar needle bioimpedance measurements. , 2015, 2015, 7542-5.		1
98	Unintentional heating at implants when using electrosurgery. , 2015, 2015, 5805-8.		1
99	Designing a PtCO ₂ sensor based on conductivity measurements. , 2007, , 300-303.		1
100	The correlations among the skin conductance features responding to physiological stress stimuli. Skin Research and Technology, 2021, 27, 582-588.	1.6	1
101	Numerical Study of Non-Linear Effects for a Swept Bias Langmuir Probe. IEEE Transactions on Plasma Science, 2022, , 1-9.	1.3	1
102	2D skin admittance mapping. , 0, , .		0
103	Some Basic Techniques in Bioimpedance Research. AIP Conference Proceedings, 2004, , .	0.4	0
104	Needle position determined by tissue impedance. , 2007, , 205-208.		0
105	Physics-Based Simulation and Control Framework for Steering a Magnetically-Actuated Guidewire. , 2022, , .		0