

Antoni Ivorra

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

2,426
citations

257101

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h-index

214527

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88
all docs

88
docs citations

88
times ranked

1988
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling Methods for Treatment Planning in Overlapping Electroporation Treatments. IEEE Transactions on Biomedical Engineering, 2022, 69, 1318-1327.	2.5	6
2	In Vitro Evaluation of a Protocol and an Architecture for Bidirectional Communications in Networks of Wireless Implants Powered by Volume Conduction. Biosystems and Biorobotics, 2022, , 103-107.	0.2	0
3	Floating EMG sensors and stimulators wirelessly powered and operated by volume conduction for networked neuroprosthetics. Journal of NeuroEngineering and Rehabilitation, 2022, 19, .	2.4	6
4	Comparing High-Frequency With Monophasic Electroporation Protocols in an In Vivo Beating Heart Model. JACC: Clinical Electrophysiology, 2021, 7, 959-964.	1.3	10
5	Volume Conduction for Powering Deeply Implanted Networks of Wireless Injectable Medical Devices: A Numerical Parametric Analysis. IEEE Access, 2021, 9, 100594-100605.	2.6	9
6	Injectable Temperature Sensors Based on Passive Rectification of Volume-Conducted Currents. , 2021, , .		0
7	High-voltage pulsed electric field laboratory device with asymmetric voltage multiplier for marine macroalgae electroporation. Innovative Food Science and Emerging Technologies, 2020, 60, 102288.	2.7	14
8	EView: An electric field visualization web platform for electroporation-based therapies. Computer Methods and Programs in Biomedicine, 2020, 197, 105682.	2.6	10
9	Injectable Sensors Based on Passive Rectification of Volume-Conducted Currents. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 867-878.	2.7	13
10	Dynamics of Cell Death After Conventional IRE and H-FIRE Treatments. Annals of Biomedical Engineering, 2020, 48, 1451-1462.	1.3	54
11	Power Transfer by Volume Conduction: In Vitro Validated Analytical Models Predict DC Powers Above 1 mW in Injectable Implants. IEEE Access, 2020, 8, 37808-37820.	2.6	14
12	Interleaved intramuscular stimulation with minimally overlapping electrodes evokes smooth and fatigue resistant forces. Journal of Neural Engineering, 2020, 17, 046037.	1.8	3
13	The combination of electroporation and electrolysis (E2) employing different electrode arrays for ablation of large tissue volumes. PLoS ONE, 2019, 14, e0221393.	1.1	10
14	Powering Implants by Galvanic Coupling: A Validated Analytical Model Predicts Powers Above 1 mW in Injectable Implants. IFMBE Proceedings, 2019, , 23-26.	0.2	3
15	Pulsed Radiofrequency for Chronic Pain: An Electroporation Mediated Calcium Signaling Process?. Biophysical Journal, 2018, 114, 287a.	0.2	2
16	Avoiding neuromuscular stimulation in liver irreversible electroporation using radiofrequency electric fields. Physics in Medicine and Biology, 2018, 63, 035027.	1.6	12
17	Impedance spectroscopy measurements as a tool for distinguishing different luminal content during bolus transit studies. Neurogastroenterology and Motility, 2018, 30, e13274.	1.6	1
18	Irreversible electroporation for the treatment of cardiac arrhythmias. Expert Review of Cardiovascular Therapy, 2018, 16, 349-360.	0.6	42

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19	Effect of applied voltage, duration and repetition frequency of RF pulses for pain relief on temperature spikes and electrical field: a computer modelling study. <i>International Journal of Hyperthermia</i> , 2018, 34, 112-121.	1.1	19
20	Modeling liver electrical conductivity during hypertonic injection. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2904.	1.0	2
21	Monitoring the Effect of Contact Pressure on Bioimpedance Measurements. , 2018, 2018, 4949-4952.		4
22	Two-Port Networks to Model Galvanic Coupling for Intrabody Communications and Power Transfer to Implants. , 2018, , .		8
23	Design, Construction and Validation of an Electrical Impedance Probe with Contact Force and Temperature Sensors Suitable for in-vivo Measurements. <i>Scientific Reports</i> , 2018, 8, 14818.	1.6	15
24	Anatomically Realistic Simulations of Liver Ablation by Irreversible Electroporation: Impact of Blood Vessels on Ablation Volumes and Undertreatment. <i>Technology in Cancer Research and Treatment</i> , 2017, 16, 783-792.	0.8	21
25	Long-term effectiveness of irreversible electroporation in a murine model of colorectal liver metastasis. <i>Scientific Reports</i> , 2017, 7, 44821.	1.6	9
26	Assessment of Electroporation by Electrical Impedance Methods. , 2017, , 671-690.		5
27	Avoiding nerve stimulation in irreversible electroporation: a numerical modeling study. <i>Physics in Medicine and Biology</i> , 2017, 62, 8060-8079.	1.6	54
28	Demonstration of 2 mm Thick Microcontrolled Injectable Stimulators Based on Rectification of High Frequency Current Bursts. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 1343-1352.	2.7	20
29	Focused transhepatic electroporation mediated by hypersaline infusion through the portal vein in rat model. Preliminary results on differential conductivity. <i>Radiology and Oncology</i> , 2017, 51, 415-421.	0.6	3
30	A portable bioimpedance measurement system based on Red Pitaya for monitoring and detecting abnormalities in the gastrointestinal tract. , 2016, , .		14
31	Dependence of Electroporation Detection Threshold on Cell Radius: An Explanation to Observations Non Compatible with Schwanâ€™s Equation Model. <i>Journal of Membrane Biology</i> , 2016, 249, 663-676.	1.0	26
32	Irreversible electroporation of the liver: is there a safe limit to the ablation volume?. <i>Scientific Reports</i> , 2016, 6, 23781.	1.6	22
33	A Versatile Multilevel Converter Platform for Cancer Treatment Using Irreversible Electroporation. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2016, 4, 236-242.	3.7	32
34	Assessment of Electroporation by Electrical Impedance Methods. , 2016, , 1-20.		3
35	<i>In vivo</i> demonstration of injectable microstimulators based on charge-balanced rectification of epidermally applied currents. <i>Journal of Neural Engineering</i> , 2015, 12, 066010.	1.8	17
36	In Vivo Demonstration of Addressable Microstimulators Powered by Rectification of Epidermally Applied Currents for Miniaturized Neuroprostheses. <i>PLoS ONE</i> , 2015, 10, e0131666.	1.1	10

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37	Tumor growth delay by adjuvant alternating electric fields which appears non-thermally mediated. <i>Bioelectrochemistry</i> , 2015, 105, 16-24.	2.4	9
38	A review of pulse generation topologies for clinical electroporation. , 2015, , .		3
39	Bidirectional communications in wireless microstimulators based on electronic rectification of epidermally applied currents. , 2015, , .		2
40	Selective Electroporation of Liver Tumor Nodules by Means of Hypersaline Infusion: A Feasibility Study. <i>IFMBE Proceedings</i> , 2015, , 821-824.	0.2	4
41	Towards addressable wireless microstimulators based on electronic rectification of epidermally applied currents. , 2014, 2014, 3973-6.		3
42	Fast flow-through non-thermal pasteurization using constant radiofrequency electric fields. <i>Innovative Food Science and Emerging Technologies</i> , 2014, 22, 116-123.	2.7	11
43	Flexible Thread-like Electrical Stimulation Implants Based on Rectification of Epidermally Applied Currents Which Perform Charge Balance. <i>Biosystems and Biorobotics</i> , 2014, , 447-455.	0.2	2
44	Comparison of the effects of the repetition rate between microsecond and nanosecond pulses: Electroporation-induced electro-desensitization?. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014, 1840, 2139-2151.	1.1	84
45	Electroporation. , 2014, , 1486-1489.		0
46	Can electroporation previous to radiofrequency hepatic ablation enlarge thermal lesion size? A feasibility study based on theoretical modelling and <i>in vivo</i> experiments. <i>International Journal of Hyperthermia</i> , 2013, 29, 211-218.	1.1	5
47	In vivo assessment of corneal barrier function through non-invasive impedance measurements using a flexible probe. <i>Journal of Physics: Conference Series</i> , 2013, 434, 012072.	0.3	0
48	Irreversible electroporation shows efficacy against pancreatic carcinoma without systemic toxicity in mouse models. <i>Cancer Letters</i> , 2012, 317, 16-23.	3.2	66
49	Electrochemical Prevention of Needle-Tract Seeding. <i>Annals of Biomedical Engineering</i> , 2011, 39, 2080-2089.	1.3	4
50	Remote Electrical Stimulation by Means of Implanted Rectifiers. <i>PLoS ONE</i> , 2011, 6, e23456.	1.1	20
51	Non-invasive assessment of corneal endothelial permeability by means of electrical impedance measurements. <i>Medical Engineering and Physics</i> , 2010, 32, 1107-1115.	0.8	16
52	Electrical impedance characterization of normal and cancerous human hepatic tissue. <i>Physiological Measurement</i> , 2010, 31, 995-1009.	1.2	166
53	Tissue Electroporation as a Bioelectric Phenomenon: Basic Concepts. <i>Series in Biomedical Engineering</i> , 2010, , 23-61.	0.5	37
54	Vascular Smooth Muscle Cells Ablation with Endovascular Nonthermal Irreversible Electroporation. <i>Journal of Vascular and Interventional Radiology</i> , 2010, 21, 1708-1715.	0.2	52

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55	Electrical modeling of the influence of medium conductivity on electroporation. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 10055.	1.3	71
56	Historical Review of Irreversible Electroporation in Medicine. <i>Series in Biomedical Engineering</i> , 2010, , 1-21.	0.5	18
57	Linear Superposition Electrical Impedance Tomography Imaging With Multiple Electrical/Biopsy Probes. <i>IEEE Transactions on Biomedical Engineering</i> , 2009, 56, 1465-1472.	2.5	6
58	<i>In vivo</i> electrical conductivity measurements during and after tumor electroporation: conductivity changes reflect the treatment outcome. <i>Physics in Medicine and Biology</i> , 2009, 54, 5949-5963.	1.6	158
59	<i>In vivo</i> imaging of irreversible electroporation by means of electrical impedance tomography. <i>Physics in Medicine and Biology</i> , 2009, 54, 4927-4943.	1.6	65
60	Electric Field Redistribution due to Conductivity Changes during Tissue Electroporation: Experiments with a Simple Vegetal Model. <i>IFMBE Proceedings</i> , 2009, , 59-62.	0.2	41
61	Non Thermal Irreversible Electroporation: Novel Technology for Vascular Smooth Muscle Cells Ablation. <i>PLoS ONE</i> , 2009, 4, e4757.	1.1	127
62	Irreversible Electroporation Attenuates Neointimal Formation After Angioplasty. <i>IEEE Transactions on Biomedical Engineering</i> , 2008, 55, 2268-2274.	2.5	39
63	Use of conductive gels for electric field homogenization increases the antitumor efficacy of electroporation therapies. <i>Physics in Medicine and Biology</i> , 2008, 53, 6605-6618.	1.6	43
64	Intravascular irreversible electroporation: Theoretical and experimental feasibility study. , 2008, 2008, 2051-4.		8
65	Minimally obtrusive wearable device for continuous interactive cognitive and neurological assessment. <i>Physiological Measurement</i> , 2008, 29, 543-554.	1.2	10
66	Imaging cryosurgery with EIT: tracking the ice front and post-thaw tissue viability. <i>Physiological Measurement</i> , 2008, 29, 899-912.	1.2	15
67	A New Concept for Medical Imaging Centered on Cellular Phone Technology. <i>PLoS ONE</i> , 2008, 3, e2075.	1.1	67
68	The Effect of Irreversible Electroporation on Blood Vessels. <i>Technology in Cancer Research and Treatment</i> , 2007, 6, 307-312.	0.8	300
69	Frequency-Division Multiplexing for Electrical Impedance Tomography in Biomedical Applications. <i>International Journal of Biomedical Imaging</i> , 2007, 2007, 1-9.	3.0	21
70	<i>In vivo</i> detection of liver steatosis in rats based on impedance spectroscopy. <i>Physiological Measurement</i> , 2007, 28, 813-828.	1.2	19
71	Electric field modulation in tissue electroporation with electrolytic and non-electrolytic additives. <i>Bioelectrochemistry</i> , 2007, 70, 551-560.	2.4	18
72	In vivo electrical impedance measurements during and after electroporation of rat liver. <i>Bioelectrochemistry</i> , 2007, 70, 287-295.	2.4	151

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73	Optimum Conductivity of Gels for Electric Field Homogenization in Tissue Electroporation Therapies. IFMBE Proceedings, 2007, , 619-622.	0.2	3
74	A SiC microdevice for the minimally invasive monitoring of ischemia in living tissues. Biomedical Microdevices, 2006, 8, 43-49.	1.4	23
75	Impedance Analyzer for in vivo Electroporation Studies. , 2006, 2006, 5056-9.		7
76	Electrical bioimpedance measurement during hypothermic rat kidney preservation for assessing ischemic injury. Biosensors and Bioelectronics, 2005, 20, 1866-1871.	5.3	17
77	Bioimpedance dispersion width as a parameter to monitor living tissues. Physiological Measurement, 2005, 26, S165-S173.	1.2	53
78	Development of a CMOS-compatible PCR chip: comparison of design and system strategies. Journal of Micromechanics and Microengineering, 2004, 14, 1558-1568.	1.5	34
79	Minimally invasive silicon probe for electrical impedance measurements in small animals. Biosensors and Bioelectronics, 2003, 19, 391-399.	5.3	60
80	New technology for multi-sensor silicon needles for biomedical applications. Sensors and Actuators B: Chemical, 2001, 78, 279-284.	4.0	57
81	Total Analysis Systems on a Cartridge. , 2001, , 405-406.		1