

Antoni Ivorra

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

2,426
citations

257450

24
h-index

214800

47
g-index

88
all docs

88
docs citations

88
times ranked

1988
citing authors

#	ARTICLE	IF	CITATIONS
1	The Effect of Irreversible Electroporation on Blood Vessels. Technology in Cancer Research and Treatment, 2007, 6, 307-312.	1.9	300
2	Electrical impedance characterization of normal and cancerous human hepatic tissue. Physiological Measurement, 2010, 31, 995-1009.	2.1	166
3	<i>In vivo</i> electrical conductivity measurements during and after tumor electroporation: conductivity changes reflect the treatment outcome. Physics in Medicine and Biology, 2009, 54, 5949-5963.	3.0	158
4	In vivo electrical impedance measurements during and after electroporation of rat liver. Bioelectrochemistry, 2007, 70, 287-295.	4.6	151
5	Non Thermal Irreversible Electroporation: Novel Technology for Vascular Smooth Muscle Cells Ablation. PLoS ONE, 2009, 4, e4757.	2.5	127
6	Comparison of the effects of the repetition rate between microsecond and nanosecond pulses: Electroporation-induced electro-desensitization?. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 2139-2151.	2.4	84
7	Electrical modeling of the influence of medium conductivity on electroporation. Physical Chemistry Chemical Physics, 2010, 12, 10055.	2.8	71
8	A New Concept for Medical Imaging Centered on Cellular Phone Technology. PLoS ONE, 2008, 3, e2075.	2.5	67
9	Irreversible electroporation shows efficacy against pancreatic carcinoma without systemic toxicity in mouse models. Cancer Letters, 2012, 317, 16-23.	7.2	66
10	<i>In vivo</i> imaging of irreversible electroporation by means of electrical impedance tomography. Physics in Medicine and Biology, 2009, 54, 4927-4943.	3.0	65
11	Minimally invasive silicon probe for electrical impedance measurements in small animals. Biosensors and Bioelectronics, 2003, 19, 391-399.	10.1	60
12	New technology for multi-sensor silicon needles for biomedical applications. Sensors and Actuators B: Chemical, 2001, 78, 279-284.	7.8	57
13	Avoiding nerve stimulation in irreversible electroporation: a numerical modeling study. Physics in Medicine and Biology, 2017, 62, 8060-8079.	3.0	54
14	Dynamics of Cell Death After Conventional IRE and H-FIRE Treatments. Annals of Biomedical Engineering, 2020, 48, 1451-1462.	2.5	54
15	Bioimpedance dispersion width as a parameter to monitor living tissues. Physiological Measurement, 2005, 26, S165-S173.	2.1	53
16	Vascular Smooth Muscle Cells Ablation with Endovascular Nonthermal Irreversible Electroporation. Journal of Vascular and Interventional Radiology, 2010, 21, 1708-1715.	0.5	52
17	Use of conductive gels for electric field homogenization increases the antitumor efficacy of electroporation therapies. Physics in Medicine and Biology, 2008, 53, 6605-6618.	3.0	43
18	Irreversible electroporation for the treatment of cardiac arrhythmias. Expert Review of Cardiovascular Therapy, 2018, 16, 349-360.	1.5	42

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19	Electric Field Redistribution due to Conductivity Changes during Tissue Electroporation: Experiments with a Simple Vegetal Model. IFMBE Proceedings, 2009, , 59-62.	0.3	41
20	Irreversible Electroporation Attenuates Neointimal Formation After Angioplasty. IEEE Transactions on Biomedical Engineering, 2008, 55, 2268-2274.	4.2	39
21	Tissue Electroporation as a Bioelectric Phenomenon: Basic Concepts. Series in Biomedical Engineering, 2010, , 23-61.	0.5	37
22	Development of a CMOS-compatible PCR chip: comparison of design and system strategies. Journal of Micromechanics and Microengineering, 2004, 14, 1558-1568.	2.6	34
23	A Versatile Multilevel Converter Platform for Cancer Treatment Using Irreversible Electroporation. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2016, 4, 236-242.	5.4	32
24	Dependence of Electroporation Detection Threshold on Cell Radius: An Explanation to Observations Non Compatible with Schwan's Equation Model. Journal of Membrane Biology, 2016, 249, 663-676.	2.1	26
25	A SiC microdevice for the minimally invasive monitoring of ischemia in living tissues. Biomedical Microdevices, 2006, 8, 43-49.	2.8	23
26	Irreversible electroporation of the liver: is there a safe limit to the ablation volume?. Scientific Reports, 2016, 6, 23781.	3.3	22
27	Frequency-Division Multiplexing for Electrical Impedance Tomography in Biomedical Applications. International Journal of Biomedical Imaging, 2007, 2007, 1-9.	3.9	21
28	Anatomically Realistic Simulations of Liver Ablation by Irreversible Electroporation: Impact of Blood Vessels on Ablation Volumes and Undertreatment. Technology in Cancer Research and Treatment, 2017, 16, 783-792.	1.9	21
29	Demonstration of 2 mm Thick Microcontrolled Injectable Stimulators Based on Rectification of High Frequency Current Bursts. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 1343-1352.	4.9	20
30	Remote Electrical Stimulation by Means of Implanted Rectifiers. PLoS ONE, 2011, 6, e23456.	2.5	20
31	<i>In vivo</i> detection of liver steatosis in rats based on impedance spectroscopy. Physiological Measurement, 2007, 28, 813-828.	2.1	19
32	Effect of applied voltage, duration and repetition frequency of RF pulses for pain relief on temperature spikes and electrical field: a computer modelling study. International Journal of Hyperthermia, 2018, 34, 112-121.	2.5	19
33	Electric field modulation in tissue electroporation with electrolytic and non-electrolytic additives. Bioelectrochemistry, 2007, 70, 551-560.	4.6	18
34	Historical Review of Irreversible Electroporation in Medicine. Series in Biomedical Engineering, 2010, , 1-21.	0.5	18
35	Electrical bioimpedance measurement during hypothermic rat kidney preservation for assessing ischemic injury. Biosensors and Bioelectronics, 2005, 20, 1866-1871.	10.1	17
36	<i>In vivo</i> demonstration of injectable microstimulators based on charge-balanced rectification of epidermally applied currents. Journal of Neural Engineering, 2015, 12, 066010.	3.5	17

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37	Non-invasive assessment of corneal endothelial permeability by means of electrical impedance measurements. <i>Medical Engineering and Physics</i> , 2010, 32, 1107-1115.	1.7	16
38	Imaging cryosurgery with EIT: tracking the ice front and post-thaw tissue viability. <i>Physiological Measurement</i> , 2008, 29, 899-912.	2.1	15
39	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.	3.3	15
40	A portable bioimpedance measurement system based on Red Pitaya for monitoring and detecting abnormalities in the gastrointestinal tract. , 2016, , .		14
41	High-voltage pulsed electric field laboratory device with asymmetric voltage multiplier for marine macroalgae electroporation. <i>Innovative Food Science and Emerging Technologies</i> , 2020, 60, 102288.	5.6	14
42	Power Transfer by Volume Conduction: In Vitro Validated Analytical Models Predict DC Powers Above 1 mW in Injectable Implants. <i>IEEE Access</i> , 2020, 8, 37808-37820.	4.2	14
43	Injectable Sensors Based on Passive Rectification of Volume-Conducted Currents. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2020, 14, 867-878.	4.0	13
44	Avoiding neuromuscular stimulation in liver irreversible electroporation using radiofrequency electric fields. <i>Physics in Medicine and Biology</i> , 2018, 63, 035027.	3.0	12
45	Fast flow-through non-thermal pasteurization using constant radiofrequency electric fields. <i>Innovative Food Science and Emerging Technologies</i> , 2014, 22, 116-123.	5.6	11
46	Minimally obtrusive wearable device for continuous interactive cognitive and neurological assessment. <i>Physiological Measurement</i> , 2008, 29, 543-554.	2.1	10
47	In Vivo Demonstration of Addressable Microstimulators Powered by Rectification of Epidermally Applied Currents for Miniaturized Neuroprostheses. <i>PLoS ONE</i> , 2015, 10, e0131666.	2.5	10
48	The combination of electroporation and electrolysis (E2) employing different electrode arrays for ablation of large tissue volumes. <i>PLoS ONE</i> , 2019, 14, e0221393.	2.5	10
49	EView: An electric field visualization web platform for electroporation-based therapies. <i>Computer Methods and Programs in Biomedicine</i> , 2020, 197, 105682.	4.7	10
50	Comparing High-Frequency With Monophasic Electroporation Protocols in an In Vivo Beating Heart Model. <i>JACC: Clinical Electrophysiology</i> , 2021, 7, 959-964.	3.2	10
51	Tumor growth delay by adjuvant alternating electric fields which appears non-thermally mediated. <i>Bioelectrochemistry</i> , 2015, 105, 16-24.	4.6	9
52	Long-term effectiveness of irreversible electroporation in a murine model of colorectal liver metastasis. <i>Scientific Reports</i> , 2017, 7, 44821.	3.3	9
53	Volume Conduction for Powering Deeply Implanted Networks of Wireless Injectable Medical Devices: A Numerical Parametric Analysis. <i>IEEE Access</i> , 2021, 9, 100594-100605.	4.2	9
54	Intravascular irreversible electroporation: Theoretical and experimental feasibility study. , 2008, 2008, 2051-4.		8

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55	Two-Port Networks to Model Galvanic Coupling for Intrabody Communications and Power Transfer to Implants. , 2018, , .		8
56	Impedance Analyzer for in vivo Electroporation Studies. , 2006, 2006, 5056-9.		7
57	Linear Superposition Electrical Impedance Tomography Imaging With Multiple Electrical/Biopsy Probes. IEEE Transactions on Biomedical Engineering, 2009, 56, 1465-1472.	4.2	6
58	Modeling Methods for Treatment Planning in Overlapping Electroporation Treatments. IEEE Transactions on Biomedical Engineering, 2022, 69, 1318-1327.	4.2	6
59	Floating EMG sensors and stimulators wirelessly powered and operated by volume conduction for networked neuroprosthetics. Journal of NeuroEngineering and Rehabilitation, 2022, 19, .	4.6	6
60	Can electroporation previous to radiofrequency hepatic ablation enlarge thermal lesion size? A feasibility study based on theoretical modelling and<i>in vivo</i>experiments. International Journal of Hyperthermia, 2013, 29, 211-218.	2.5	5
61	Assessment of Electroporation by Electrical Impedance Methods. , 2017, , 671-690.		5
62	Electrochemical Prevention of Needle-Tract Seeding. Annals of Biomedical Engineering, 2011, 39, 2080-2089.	2.5	4
63	Monitoring the Effect of Contact Pressure on Bioimpedance Measurements. , 2018, 2018, 4949-4952.		4
64	Selective Electroporation of Liver Tumor Nodules by Means of Hypersaline Infusion: A Feasibility Study. IFMBE Proceedings, 2015, , 821-824.	0.3	4
65	Towards addressable wireless microstimulators based on electronic rectification of epidermally applied currents. , 2014, 2014, 3973-6.		3
66	A review of pulse generation topologies for clinical electroporation. , 2015, , .		3
67	Focused transhepatic electroporation mediated by hypersaline infusion through the portal vein in rat model. Preliminary results on differential conductivity. Radiology and Oncology, 2017, 51, 415-421.	1.7	3
68	Optimum Conductivity of Gels for Electric Field Homogenization in Tissue Electroporation Therapies. IFMBE Proceedings, 2007, , 619-622.	0.3	3
69	Assessment of Electroporation by Electrical Impedance Methods. , 2016, , 1-20.		3
70	Powering Implants by Galvanic Coupling: A Validated Analytical Model Predicts Powers Above 1 mW in Injectable Implants. IFMBE Proceedings, 2019, , 23-26.	0.3	3
71	Interleaved intramuscular stimulation with minimally overlapping electrodes evokes smooth and fatigue resistant forces. Journal of Neural Engineering, 2020, 17, 046037.	3.5	3
72	Flexible Thread-like Electrical Stimulation Implants Based on Rectification of Epidermally Applied Currents Which Perform Charge Balance. Biosystems and Biorobotics, 2014, , 447-455.	0.3	2

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73	Bidirectional communications in wireless microstimulators based on electronic rectification of epidermally applied currents. , 2015, , .		2
74	Pulsed Radiofrequency for Chronic Pain: An Electroporation Mediated Calcium Signaling Process?. Biophysical Journal, 2018, 114, 287a.	0.5	2
75	Modeling liver electrical conductivity during hypertonic injection. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2904.	2.1	2
76	Impedance spectroscopy measurements as a tool for distinguishing different luminal content during bolus transit studies. Neurogastroenterology and Motility, 2018, 30, e13274.	3.0	1
77	Total Analysis Systems on a Cartridge. , 2001, , 405-406.		1
78	In vivo assessment of corneal barrier function through non-invasive impedance measurements using a flexible probe. Journal of Physics: Conference Series, 2013, 434, 012072.	0.4	0
79	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.	0.3	0
80	Electroporation. , 2014, , 1486-1489.		0
81	Injectable Temperature Sensors Based on Passive Rectification of Volume-Conducted Currents. , 2021, , .		0