Damijan Miklavcic

List of Publications by Year
in descending order

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407	23,138	5896	12272
papers	citations	81 h-index	133 g-index

443	443	443	8716
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electrochemotherapy â€“ An easy, highly effective and safe treatment of cutaneous and subcutaneous metastases: Results of ESOPE (European Standard Operating Procedures of Electrochemotherapy) study. European Journal of Cancer, Supplement, 2006, 4, 3-13.	2.2	713
2	Electroporation-Based Technologies for Medicine: Principles, Applications, and Challenges. Annual Review of Biomedical Engineering, 2014, 16, 295-320.	12.3	655
3	Electroporation-based applications in biotechnology. Trends in Biotechnology, 2015, 33, 480-488.	9.3	445
4	Membrane Electroporation and Electropermeabilization: Mechanisms and Models. Annual Review of Biophysics, 2019, 48, 63-91.	10.0	417
5	Effective treatment of cutaneous and subcutaneous malignant tumours by electrochemotherapy. British Journal of Cancer, 1998, 77, 2336-2342.	6.4	414
6	Electrochemotherapy in treatment of tumours. European Journal of Surgical Oncology, 2008, 34, 232-240.	1.0	394
7	Cell membrane electroporation- Part 1: The phenomenon. IEEE Electrical Insulation Magazine, 2012, 28, 14-23.	0.8	375
8	Antitumor effectiveness of electrochemotherapy: A systematic review and meta-analysis. European Journal of Surgical Oncology, 2013, 39, 4-16.	1.0	309
9	A validated model of in vivo electric field distribution in tissues for electrochemotherapy and for DNA electrotransfer for gene therapy. Biochimica Et Biophysica Acta - General Subjects, 2000, 1523, 73-83.	2.4	307
10	Electrochemotherapy: from the drawing board into medical practice. BioMedical Engineering OnLine, 2014, 13, 29.	2.7	284
11	Mechanisms of in Vivo DNA Electrotransfer: Respective Contributions of Cell Electropermeabilization and DNA Electrophoresis. Molecular Therapy, 2002, 5, 133-140.	8.2	280
12	Theoretical Evaluation of Voltage Inducement on Internal Membranes of Biological Cells Exposed to Electric Fields. Biophysical Journal, 2006, 90, 480-491.	0.5	268
13	Effect of Cell Electroporation on the Conductivity of a Cell Suspension. Biophysical Journal, 2005, 88, 4378-4390.	0.5	248
14	The Importance of Electric Field Distribution for Effective in Vivo Electroporation of Tissues. Biophysical Journal, 1998, 74, 2152-2158.	0.5	236
15	Sequential Finite Element Model of Tissue Electropermeabilization. IEEE Transactions on Biomedical Engineering, 2005, 52, 816-827.	4.2	232
16	Electroporation in Food Processing and Biorefinery. Journal of Membrane Biology, 2014, 247, 1279-1304.	2.1	218
17	Analytical Description of Transmembrane Voltage Induced by Electric Fields on Spheroidal Cells. Biophysical Journal, 2000, 79, 670-679.	0.5	217
18	Antitumor effectiveness of electrochemotherapy with cis-diamminedichloroplatinum(II) in mice. Cancer Research, 1995, 55, 3450-5.	0.9	214

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19	High-Voltage Electrical Pulses in Oncology: Irreversible Electroporation, Electrochemotherapy, Gene Electrotransfer, Electrofusion, and Electroimmunotherapy. Radiology, 2020, 295, 254-272.	7.3	208
20	Effect of electric field induced transmembrane potential on spheroidal cells: theory and experiment. European Biophysics Journal, 2003, 32, 519-528.	2.2	197
21	Recommendations guidelines on the key information to be reported in studies of application of PEF technology in food and biotechnological processes. Innovative Food Science and Emerging Technologies, 2016, 37, 312-321.	5.6	194
22	Induced Transmembrane Voltage and Its Correlation with Electroporation-Mediated Molecular Transport. Journal of Membrane Biology, 2010, 236, 3-13.	2.1	188
23	Electrochemotherapy: technological advancements for efficient electroporation-based treatment of internal tumors. Medical and Biological Engineering and Computing, 2012, 50, 1213-1225.	2.8	188
24	Time course of transmembrane voltage induced by time-varying electric fieldsâ€”a method for theoretical analysis and its application. Bioelectrochemistry, 1998, 45, 3-16.	1.0	187
25	Vascular disrupting action of electroporation and electrochemotherapy with bleomycin in murine sarcoma. British Journal of Cancer, 2008, 98, 388-398.	6.4	187
26	Modeling of electric field distribution in tissues during electroporation. BioMedical Engineering OnLine, 2013, 12, 16.	2.7	183
27	Equivalent Pulse Parameters for Electroporation. IEEE Transactions on Biomedical Engineering, 2011, 58, 3279-3288.	4.2	179
28	Energy-efficient biomass processing with pulsed electric fields for bioeconomy and sustainable development. Biotechnology for Biofuels, 2016, 9, 94.	6.2	179
29	Antivascular effects of electrochemotherapy: implications in treatment of bleeding metastases. Expert Review of Anticancer Therapy, 2010, 10, 729-746.	2.4	177
30	Numerical Determination of Transmembrane Voltage Induced on Irregularly Shaped Cells. Annals of Biomedical Engineering, 2006, 34, 642-652.	2.5	174
31	Cell death due to electroporation â€“ A review. Bioelectrochemistry, 2021, 141, 107871.	4.6	174
32	Gene Electrotransfer: A Mechanistic Perspective. Current Gene Therapy, 2016, 16, 98-129.	2.0	168
33	Towards treatment planning and treatment of deep-seated solid tumors by electrochemotherapy. BioMedical Engineering OnLine, 2010, 9, 10.	2.7	165
34	Kinetics of Transmembrane Transport of Small Molecules into Electropermeabilized Cells. Biophysical Journal, 2008, 95, 2837-2848.	0.5	160
35	Effects of high voltage nanosecond electric pulses on eukaryotic cells (in vitro): A systematic review. Bioelectrochemistry, 2016, 110, 1-12.	4.6	160
36	Electrochemotherapy: A New Technological Approach in Treatment of Metastases in the Liver. Technology in Cancer Research and Treatment, 2011, 10, 475-485.	1.9	159

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37	A Numerical Investigation of the Electric and Thermal Cell Kill Distributions in Electroporation-Based Therapies in Tissue. PLoS ONE, 2014, 9, e103083.	2.5	155
38	Intraoperative electrochemotherapy of colorectal liver metastases. Journal of Surgical Oncology, 2014, 110, 320-327.	1.7	155
39	Dependence of induced transmembrane potential on cell density, arrangement, and cell position inside a cell system. IEEE Transactions on Biomedical Engineering, 2002, 49, 605-612.	4.2	150
40	Electrochemotherapy with cisplatin: potentiation of local cisplatin antitumour effectiveness by application of electric pulses in cancer patients. European Journal of Cancer, 1998, 34, 1213-1218.	2.8	146
41	Efficiency of High- and Low-Voltage Pulse Combinations for Gene Electrotransfer in Muscle, Liver, Tumor, and Skin. Human Gene Therapy, 2008, 19, 1261-1272.	2.7	145
42	Tutorial: Electroporation of cells in complex materials and tissue. Journal of Applied Physics, 2016, 119, .	2.5	145
43	A Time-Dependent Numerical Model of Transmembrane Voltage Inducement and Electroporation of Irregularly Shaped Cells. IEEE Transactions on Biomedical Engineering, 2009, 56, 1491-1501.	4.2	144
44	Theoretical evaluation of the distributed power dissipation in biological cells exposed to electric fields. Bioelectromagnetics, 2000, 21, 385-394.	1.6	140
45	Role of pulse shape in cell membrane electropermeabilization. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1614, 193-200.	2.6	140
46	Electrochemotherapy â€“ Emerging applications technical advances, new indications, combined approaches, and multi-institutional collaboration. European Journal of Surgical Oncology, 2019, 45, 92-102.	1.0	138
47	Real time electroporation control for accurate and safe in vivo non-viral gene therapy. Bioelectrochemistry, 2007, 70, 501-507.	4.6	137
48	Electrochemotherapy of tumors as in situ vaccination boosted by immunogene electrotransfer. Cancer Immunology, Immunotherapy, 2015, 64, 1315-1327.	4.2	134
49	The influence of medium conductivity on electropermeabilization and survival of cells in vitro. Bioelectrochemistry, 2001, 54, 107-115.	4.6	132
50	The Course of Tissue Permeabilization Studied on a Mathematical Model of a Subcutaneous Tumor in Small Animals. IEEE Transactions on Biomedical Engineering, 2005, 52, 1373-1381.	4.2	131
51	Nanosecond electric pulses cause mitochondrial membrane permeabilization in Jurkat cells. Bioelectromagnetics, 2012, 33, 257-264.	1.6	131
52	In vitro electroporation detection methods â€“ An overview. Bioelectrochemistry, 2018, 120, 166-182.	4.6	130
53	Cell membrane electropermeabilization by symmetrical bipolar rectangular pulses. Bioelectrochemistry, 2001, 54, 83-90.	4.6	127
54	Biomedical applications of electric pulses with special emphasis on antitumor electrochemotherapy. Bioelectrochemistry, 1995, 38, 203-207.	1.0	126

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55	Electrophoretic Component of Electric Pulses Determines the Efficacy of In Vivo DNA Electrotransfer. Human Gene Therapy, 2005, 16, 1194-1201.	2.7	126
56	Importance of tumour coverage by sufficiently high local electric field for effective electrochemotherapy. European Journal of Cancer, Supplement, 2006, 4, 45-51.	2.2	126
57	Second-order model of membrane electric field induced by alternating external electric fields. IEEE Transactions on Biomedical Engineering, 2000, 47, 1074-1081.	4.2	124
58	Quantitative model of small molecules uptake after in vitro cell electropermeabilization. Bioelectrochemistry, 2003, 60, 1-10.	4.6	122
59	Electrochemotherapy with cisplatin: clinical experience in malignant melanoma patients. Clinical Cancer Research, 2000, 6, 863-7.	7.0	121
60	Comparison of paper-based and electronic data collection process in clinical trials: Costs simulation study. Contemporary Clinical Trials, 2009, 30, 300-316.	1.8	113
61	The effect of pulse repetition frequency on the uptake into electropermeabilized cells in vitro with possible applications in electrochemotherapy. Bioelectrochemistry, 2002, 57, 167-172.	4.6	112
62	The effect of high frequency electric pulses on muscle contractions and antitumor efficiency in vivo for a potential use in clinical electrochemotherapy. Bioelectrochemistry, 2005, 65, 121-128.	4.6	112
63	Mechanisms involved in gene electrotransfer using high- and low-voltage pulses â€" An in vitro study. Bioelectrochemistry, 2009, 74, 265-271.	4.6	110
64	Cell membrane electroporation-Part 2: the applications. IEEE Electrical Insulation Magazine, 2013, 29, 29-37.	0.8	110
65	Cell electrofusion using nanosecond electric pulses. Scientific Reports, 2013, 3, 3382.	3.3	110
66	Cell membrane electropermeabilization by symmetrical bipolar rectangular pulses. Bioelectrochemistry, 2001, 54, 91-95.	4.6	107
67	Electrochemotherapy in Veterinary Oncology. Journal of Veterinary Internal Medicine, 2008, 22, 826-831.	1.6	107
68	Treatment planning of electroporation-based medical interventions: electrochemotherapy, gene electrotransfer and irreversible electroporation. Physics in Medicine and Biology, 2012, 57, 5425-5440.	3.0	107
69	Techniques of signal generation required for electropermeabilization. Bioelectrochemistry, 2004, 64, 113-124.	4.6	105
70	Electric Field-Induced Transmembrane Potential Depends on Cell Density and Organizatio. Electromagnetic Biology and Medicine, 1998, 17, 391-399.	0.4	104
71	Electroâ€mediated gene transfer and expression are controlled by the lifeâ€time of DNA/membrane complex formation. Journal of Gene Medicine, 2010, 12, 117-125.	2.8	104
72	Numerical analysis and thermographic investigation of induction heating. International Journal of Heat and Mass Transfer, 2010, 53, 3585-3591.	4.8	104

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73	Recommendations for improving the quality of reporting clinical electrochemotherapy studies based on qualitative systematic review. Radiology and Oncology, 2016, 50, 1-13.	1.7	101
74	Theoretical and experimental analysis of conductivity, ion diffusion and molecular transport during cell electroporation â€" Relation between short-lived and long-lived pores. Bioelectrochemistry, 2008, 74, 38-46.	4.6	100
75	Effective Conductivity of a Suspension of Permeabilized Cells: A Theoretical Analysis. Biophysical Journal, 2003, 85, 719-729.	0.5	94
76	Electrochemotherapy with cisplatin: the systemic antitumour effectiveness of cisplatin can be potentiated locally by the application of electric pulses in the treatment of malignant melanoma skin metastases. Melanoma Research, 2000, 10, 381-385.	1.2	92
77	Electropermeabilization of dense cell suspensions. European Biophysics Journal, 2007, 36, 173-185.	2.2	92
78	Hollow Microneedle Arrays for Intradermal Drug Delivery and DNA Electroporation. Journal of Membrane Biology, 2010, 236, 117-125.	2.1	92
79	Tumor size and effectiveness of electrochemotherapy. Radiology and Oncology, 2013, 47, 32-41.	1.7	92
80	Cell membrane electroporation-Part 3: the equipment. IEEE Electrical Insulation Magazine, 2014, 30, 8-18.	0.8	91
81	Variation in dielectric properties due to pathological changes in human liver. Bioelectromagnetics, 2015, 36, 603-612.	1.6	87
82	Electroporation in dense cell suspensionâ€"Theoretical and experimental analysis of ion diffusion and cell permeabilization. Biochimica Et Biophysica Acta - General Subjects, 2007, 1770, 12-23.	2.4	82
83	Careful treatment planning enables safe ablation of liver tumors adjacent to major blood vessels by percutaneous irreversible electroporation (IRE). Radiology and Oncology, 2015, 49, 234-241.	1.7	82
84	The influence of skeletal muscle anisotropy on electroporation: in vivo study and numerical modeling. Medical and Biological Engineering and Computing, 2010, 48, 637-648.	2.8	81
85	Testing a prototype pulse generator for a continuous flow system and its use for E. coli inactivation and microalgae lipid extraction. Bioelectrochemistry, 2014, 100, 44-51.	4.6	81
86	Quantification of cell membrane permeability induced by monopolar and high-frequency bipolar bursts of electrical pulses. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 2689-2698.	2.6	81
87	Electrochemotherapy of superficial tumors â€" Current status:. Seminars in Oncology, 2019, 46, 173-191.	2.2	80
88	Robustness of Treatment Planning for Electrochemotherapy of Deep-Seated Tumors. Journal of Membrane Biology, 2010, 236, 147-153.	2.1	79
89	Changing electrode orientation improves the efficacy of electrochemotherapy of solid tumors in mice. Bioelectrochemistry, 1996, 39, 61-66.	1.0	76
90	The temperature effect during pulse application on cell membrane fluidity and permeabilization. Bioelectrochemistry, 2008, 74, 52-57.	4.6	75

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91	EFFICIENCY OF HIGH AND LOW VOLTAGE PULSE COMBINATIONS FOR GENE ELECTROTRANSFER IN MUSCLE, LIVER, TUMOR AND SKIN. Human Gene Therapy, 2008, 19, 081015093227032.	2.7	74
92	Skin electroporation for transdermal drug delivery: The influence of the order of different square wave electric pulses. International Journal of Pharmaceutics, 2013, 457, 214-223.	5.2	73
93	Tumor blood flow modifying effect of electrochemotherapy with bleomycin. Anticancer Research, 1999, 19, 4017-22.	1.1	73
94	Three-dimensional finite-element analysis of joule heating in electrochemotherapy and in vivo gene electrotransfer. IEEE Transactions on Dielectrics and Electrical Insulation, 2009, 16, 1338-1347.	2.9	72
95	Parameters of Postocclusive Reactive Hyperemia Measured by Near Infrared Spectroscopy in Patients with Peripheral Vascular Disease and in Healthy Volunteers. Annals of Biomedical Engineering, 2001, 29, 311-320.	2.5	71
96	Electrochemotherapy as treatment option for hepatocellular carcinoma, a prospective pilot study. European Journal of Surgical Oncology, 2018, 44, 651-657.	1.0	71
97	The contribution of lipid peroxidation to membrane permeability in electropermeabilization: A molecular dynamics study. Bioelectrochemistry, 2019, 125, 46-57.	4.6	71
98	Advantages and Disadvantages of Different Concepts of Electroporation Pulse Generation. Automatika, 2011, 52, 12-19.	2.0	70
99	The effect of electroporation pulses on functioning of the heart. Medical and Biological Engineering and Computing, 2008, 46, 745-57.	2.8	69
100	Increased platinum accumulation in SA-1 tumour cells after in vivo electrochemotherapy with cisplatin. British Journal of Cancer, 1999, 79, 1386-1391.	6.4	68
101	Cell membrane fluidity related to electroporation and resealing. European Biophysics Journal, 2006, 35, 196-204.	2.2	68
102	Analytical and numerical quantification and comparison of the local electric field in the tissue for different electrode configurations. BioMedical Engineering OnLine, 2007, 6, 37.	2.7	68
103	Numerical Modeling and Optimization of Electric Field Distribution in Subcutaneous Tumor Treated With Electrochemotherapy Using Needle Electrodes. IEEE Transactions on Plasma Science, 2008, 36, 1665-1672.	1.3	68
104	A reliable method of determining wound healing rate. Medical and Biological Engineering and Computing, 2001, 39, 263-271.	2.8	67
105	Patient-specific treatment planning of electrochemotherapy: Procedure design and possible pitfalls. Bioelectrochemistry, 2012, 87, 265-273.	4.6	63
106	In Situ Monitoring of Electric Field Distribution in Mouse Tumor during Electroporation. Radiology, 2015, 274, 115-123.	7.3	63
107	Electrochemotherapy: variable anti-tumor effect on different tumor models. Bioelectrochemistry, 1994, 35, 23-27.	1.0	62
108	A Numerical Model of Skin Electropermeabilization Based on InÂVivo Experiments. Annals of Biomedical Engineering, 2007, 35, 2138-2144.	2.5	62

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109	Electropermeabilization of endocytotic vesicles in B16 F1 mouse melanoma cells. Medical and Biological Engineering and Computing, 2010, 48, 407-413.	2.8	62
110	Synthesis and Biological Evaluation of the Thionated Antibacterial Agent Nalidixic Acid and Its Organoruthenium(II) Complex. Organometallics, 2012, 31, 5867-5874.	2.3	62
111	Non invasive contact electrodes for in vivo localized cutaneous electropulsation and associated drug and nucleic acid delivery. Journal of Controlled Release, 2009, 134, 125-131.	9.9	61
112	Electroporation of Intracellular Liposomes Using Nanosecond Electric Pulsesâ€"A Theoretical Study. IEEE Transactions on Biomedical Engineering, 2013, 60, 2624-2635.	4.2	61
113	Effect of Electric-Field Intensity on Electropermeabilization and Electrosensitmty of Various Tumor-Cell LinesIn Vitro. Electromagnetic Biology and Medicine, 1998, 17, 263-272.	0.4	60
114	Tumor treatment by direct electric current-tumor temperature and pH, electrode material and configuration. Bioelectrochemistry, 1993, 30, 209-220.	1.0	59
115	Numerical study of the electroporation pulse shape effect on molecular uptake of biological cells. Radiology and Oncology, 2010, 44, 34-41.	1.7	59
116	Electrochemotherapy (ECT) and irreversible electroporation (IRE) -advanced techniques for treating deep-seated tumors based on electroporation. BioMedical Engineering OnLine, 2015, 14, I1.	2.7	59
117	Effective conductivity of cell suspensions. IEEE Transactions on Biomedical Engineering, 2002, 49, 77-80.	4.2	56
118	Electroporation of archaeal lipid membranes using MD simulations. Bioelectrochemistry, 2014, 100, 18-26.	4.6	56
119	Evaluation of Cell Membrane Electropermeabilization by Means of a Nonpermeant Cytotoxic Agent. BioTechniques, 2000, 28, 921-926.	1.8	55
120	Electroporator with automatic change of electric field direction improves gene electrotransfer in-vitro. BioMedical Engineering OnLine, 2007, 6, 25.	2.7	55
121	Feasibility of Employing Model-Based Optimization of Pulse Amplitude and Electrode Distance for Effective Tumor Electropermeabilization. IEEE Transactions on Biomedical Engineering, 2007, 54, 773-781.	4.2	55
122	In vivo real-time monitoring system of electroporation mediated control of transdermal and topical drug delivery. Journal of Controlled Release, 2013, 172, 862-871.	9.9	55
123	Coupling treatment planning with navigation system: a new technological approach in treatment of head and neck tumors by electrochemotherapy. BioMedical Engineering OnLine, 2015, 14, S2.	2.7	55
124	Dynamic finite-element model for efficient modelling of electric currents in electroporated tissue. Scientific Reports, 2016, 6, 26409.	3.3	55
125	On the Electroporation Thresholds of Lipid Bilayers: Molecular Dynamics Simulation Investigations. Journal of Membrane Biology, 2013, 246, 843-850.	2.1	54
126	Safety and chronic lesion characterization of pulsed field ablation in a Porcine model. Journal of Cardiovascular Electrophysiology, 2021, 32, 958-969.	1.7	54

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127	Reproducibility of Parameters of Postocclusive Reactive Hyperemia Measured by Near Infrared Spectroscopy and Transcutaneous Oximetry. Annals of Biomedical Engineering, 2000, 28, 168-173.	2.5	53
128	Numerical modeling in electroporation-based biomedical applications. Radiology and Oncology, 2008, 42, .	1.7	53
129	Blumlein Configuration for High-Repetition-Rate Pulse Generation of Variable Duration and Polarity Using Synchronized Switch Control. IEEE Transactions on Biomedical Engineering, 2009, 56, 2642-2648.	4.2	53
130	Anti-tumor effectiveness of electrochemotherapy with bleomycin is increased by TNF-Î± on SA-1 tumors in mice. Cancer Letters, 1997, 116, 85-92.	7.2	52
131	Intratumoral cisplatin administration in electrochemotherapy. Anti-Cancer Drugs, 1998, 9, 525-530.	1.4	52
132	Increasing the repetition frequency of electric pulse delivery reduces unpleasant sensations that occur in electrochemotherapy. Neoplasma, 2007, 54, 246-50.	1.6	52
133	Variability of the Minimal Transmembrane Voltage Resulting in Detectable Membrane Electroporation. Electromagnetic Biology and Medicine, 2008, 27, 372-385.	1.4	51
134	Electrochemotherapy in non-melanoma head and neck cancers: a retrospective analysis of the treated cases. British Journal of Oral and Maxillofacial Surgery, 2014, 52, 957-964.	0.8	50
135	Predictive therapeutic planning for irreversible electroporation treatment of spontaneous malignant glioma. Medical Physics, 2017, 44, 4968-4980.	3.0	50
136	Determination of the lipid bilayer breakdown voltage by means of linear rising signal. Bioelectrochemistry, 2007, 70, 23-27.	4.6	49
137	Cellâ€“Cell Electrofusion: Optimization of Electric Field Amplitude and Hypotonic Treatment for Mouse Melanoma (B16-F1) and Chinese Hamster Ovary (CHO) Cells. Journal of Membrane Biology, 2010, 236, 107-116.	2.1	49
138	Reduction in Pulmonary Vein Stenosis and Collateral Damage With Pulsed Field Ablation Compared With Radiofrequency Ablation in a Canine Model. Circulation: Arrhythmia and Electrophysiology, 2020, 13, e008337.	4.8	49
139	Electric current density imaging of mice tumors. Magnetic Resonance in Medicine, 1997, 37, 404-409.	3.0	48
140	Electrochemotherapy by pulsed electromagnetic field treatment (PEMF) in mouse melanoma B16F10 in vivo. Radiology and Oncology, 2016, 50, 39-48.	1.7	48
141	Intrinsic Sensitivity of Tumor Cells to Bleomycin as an Indicator of Tumor Response to Electrochemotherapy. Japanese Journal of Cancer Research, 1998, 89, 328-333.	1.7	47
142	Feasibility study for cell electroporation detection and separation by means of dielectrophoresis. Bioelectrochemistry, 2007, 71, 164-171.	4.6	47
143	Magnetic Resonance Electrical Impedance Tomography for Monitoring Electric Field Distribution During Tissue Electroporation. IEEE Transactions on Medical Imaging, 2011, 30, 1771-1778.	8.9	47
144	Effect of different parameters used for in vitro gene electrotransfer on gene expression efficiency, cell viability and visualization of plasmid DNA at the membrane level. Journal of Gene Medicine, 2013, 15, 169-181.	2.8	46

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145	Irreversible electroporation for catheter-based cardiac ablation: a systematic review of the preclinical experience. Journal of Interventional Cardiac Electrophysiology, 2019, 55, 251-265.	1.3	46
146	Cancellation effect is present in high-frequency reversible and irreversible electroporation. Bioelectrochemistry, 2020, 132, 107442.	4.6	46
147	Numerical Models of Skin Electropermeabilization Taking Into Account Conductivity Changes and the Presence of Local Transport Regions. IEEE Transactions on Plasma Science, 2008, 36, 1650-1658.	1.3	45
148	Lucifer Yellow uptake by CHO cells exposed to magnetic and electric pulses. Radiology and Oncology, 2012, 46, 119-25.	1.7	45
149	In Vivo Muscle Electroporation Threshold Determination: Realistic Numerical Models and In Vivo Experiments. Journal of Membrane Biology, 2012, 245, 509-520.	2.1	45
150	Recommendations and requirements for reporting on applications of electric pulse delivery for electroporation of biological samples. Bioelectrochemistry, 2018, 122, 69-76.	4.6	45
151	Calculation of the electrical parameters in electrochemotherapy of solid tumours in mice. Computers in Biology and Medicine, 1998, 28, 439-448.	7.0	44
152	Electrochemotherapy of tumours resistant to cisplatin. European Journal of Cancer, 2001, 37, 1166-1172.	2.8	44
153	Chapter Seven Electroporation of Planar Lipid Bilayers and Membranes. Behavior Research Methods, 2008, , 165-226.	4.0	44
154	A numerical analysis of multicellular environment for modeling tissue electroporation. Applied Physics Letters, 2012, 100, .	3.3	44
155	Optimization of electrode position and electric pulse amplitude in electrochemotherapy. Radiology and Oncology, 2008, 42, .	1.7	43
156	Electrochemotherapy of colorectal liver metastases - an observational study of its effects on the electrocardiogram. BioMedical Engineering OnLine, 2015, 14, S5.	2.7	43
157	Cell Electrosensitization Exists Only in Certain Electroporation Buffers. PLoS ONE, 2016, 11, e0159434.	2.5	43
158	Tumor Bioelectric Potential and its Possible Exploitation for Tumor Growth Retardation. Journal of Bioelectricity, 1990, 9, 133-149.	0.7	42
159	Analysis of damage-associated molecular pattern molecules due to electroporation of cells in vitro. Radiology and Oncology, 2020, 54, 317-328.	1.7	42
160	Finite-element modeling of needle electrodes in tissue from the perspective of frequent model computation. IEEE Transactions on Biomedical Engineering, 2003, 50, 1221-1232.	4.2	41
161	Pre- and post-natal exposure of children to EMF generated by domestic induction cookers. Physics in Medicine and Biology, 2011, 56, 6149-6160.	3.0	40
162	Ex Vivo and In Silico Feasibility Study of Monitoring Electric Field Distribution in Tissue during Electroporation Based Treatments. PLoS ONE, 2012, 7, e45737.	2.5	40

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163	Web-based tool for visualization of electric field distribution in deep-seated body structures and planning of electroporation-based treatments. BioMedical Engineering OnLine, 2015, 14, S4.	2.7	40
164	Cryopreservation of Human Adipose-Derived Stem Cells in Combination with Trehalose and Reversible Electroporation. Journal of Membrane Biology, 2017, 250, 1-9.	2.1	40
165	Nanosecond Electric Pulse Effects on Gene Expression. Journal of Membrane Biology, 2013, 246, 851-859.	2.1	39
166	Ultrasound and electric pulses for transdermal drug delivery enhancement: Ex vivo assessment of methods with in vivo oriented experimental protocols. International Journal of Pharmaceutics, 2015, 490, 65-73.	5.2	39
167	Large Liver Blood Vessels and Bile Ducts Are Not Damaged by Electrochemotherapy with Bleomycin in Pigs. Scientific Reports, 2019, 9, 3649.	3.3	39
168	Modelling of chronic wound healing dynamics. Medical and Biological Engineering and Computing, 2000, 38, 339-347.	2.8	38
169	Evidence of Conducting Hydrophobic Nanopores Across Membranes in Response to an Electric Field. Journal of Physical Chemistry C, 2014, 118, 6752-6757.	3.1	38
170	Modified cell proliferation due to electrical currents. Medical and Biological Engineering and Computing, 1992, 30, CE21-CE28.	2.8	36
171	Importance of Contact Surface between Electrodes and Treated Tissue in Electrochemotherapy. Technology in Cancer Research and Treatment, 2008, 7, 393-399.	1.9	36
172	Molecular-Level Characterization of Lipid Membrane Electroporation using Linearly Rising Current. Journal of Membrane Biology, 2012, 245, 651-659.	2.1	36
173	Planning of Electroporation-Based Treatments Using Web-Based Treatment-Planning Software. Journal of Membrane Biology, 2013, 246, 833-842.	2.1	36
174	Mathematical Models Describing Chinese Hamster Ovary Cell Death Due to Electroporation In Vitro. Journal of Membrane Biology, 2015, 248, 865-881.	2.1	36
175	Pulsed Electromagnetic Field Assisted in vitro Electroporation: A Pilot Study. Scientific Reports, 2016, 6, 33537.	3.3	36
176	Electroporation in Biological Cell and Tissue: An Overview. Food Engineering Series, 2009, , 1-37.	0.7	35
177	A statistical model describing combined irreversible electroporation and electroporation-induced blood-brain barrier disruption. Radiology and Oncology, 2016, 50, 28-38.	1.7	35
178	Dual-porosity model of solute diffusion in biological tissue modified by electroporation. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 1950-1966.	2.6	34
179	Membrane permeabilization of mammalian cells using bursts of high magnetic field pulses. PeerJ, 2017, 5, e3267.	2.0	34
180	Effect of surfactant polyoxyethylene glycol (C12E8) on electroporation of cell line DC3F. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2003, 214, 205-217.	4.7	33

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