Vitalij Novickij

List of Publications by Year
in descending order

69 papers	1,011 citations	430874 18 h-index	552781 26 g-index
69 all docs	69 docs citations	69 times ranked	741 citing authors

#	Article	IF	Citations
1	High-frequency submicrosecond electroporator. Biotechnology and Biotechnological Equipment, 2016, 30, 607-613.	1.3	57
2	Selective susceptibility to nanosecond pulsed electric field (nsPEF) across different human cell types. Cellular and Molecular Life Sciences, 2017, 74, 1741-1754.	5.4	50
3	High frequency electroporation efficiency is under control of membrane capacitive charging and voltage potential relaxation. Bioelectrochemistry, 2018, 119, 92-97.	4.6	44
4	Excitation and electroporation by MHz bursts of nanosecond stimuli. Biochemical and Biophysical Research Communications, 2019, 518, 759-764.	2.1	44
5	Pulsed Electromagnetic Field Assisted in vitro Electroporation: A Pilot Study. Scientific Reports, 2016, 6, 33537.	3.3	36
6	Membrane permeabilization of mammalian cells using bursts of high magnetic field pulses. PeerJ, 2017, 5, e3267.	2.0	34
7	Oxidative Effects during Irreversible Electroporation of Melanoma Cellsâ€"In Vitro Study. Molecules, 2021, 26, 154.	3.8	28
8	Electroporation and cell killing by milli- to nanosecond pulses and avoiding neuromuscular stimulation in cancer ablation. Scientific Reports, 2022, 12, 1763.	3.3	27
9	Influence of the electrode material on ROS generation and electroporation efficiency in low and high frequency nanosecond pulse range. Bioelectrochemistry, 2019, 127, 87-93.	4.6	26
10	Nanosecond range electric pulse application as a non-viral gene delivery method: proof of concept. Scientific Reports, 2018, 8, 15502.	3.3	24
11	Overcoming Antimicrobial Resistance in Bacteria Using Bioactive Magnetic Nanoparticles and Pulsed Electromagnetic Fields. Frontiers in Microbiology, 2017, 8, 2678.	3.5	24
12	Antitumor Response and Immunomodulatory Effects of Sub-Microsecond Irreversible Electroporation and Its Combination with Calcium Electroporation. Cancers, 2019, 11, 1763.	3.7	24
13	Contactless electroporation induced by high intensity pulsed electromagnetic fields via distributed nanoelectrodes. Bioelectrochemistry, 2020, 132, 107440.	4.6	24
14	Probing Nanoelectroporation and Resealing of the Cell Membrane by the Entry of Ca2+ and Ba2+ Ions. International Journal of Molecular Sciences, 2020, 21, 3386.	4.1	23
15	Electroporation-assisted inactivation of Escherichia coli using nisin-loaded pectin nanoparticles. Innovative Food Science and Emerging Technologies, 2016, 38, 98-104.	5.6	22
16	Pulsed electric field-assisted sensitization of multidrug-resistant <i>Candida albicans</i> to antifungal drugs. Future Microbiology, 2018, 13, 535-546.	2.0	22
17	Irreversible magnetoporation of microâ€organisms in high pulsed magnetic fields. IET Nanobiotechnology, 2014, 8, 157-162.	3.8	21
18	Programmable Pulsed Magnetic Field System for Biological Applications. IEEE Transactions on Magnetics, 2014, 50, 1-4.	2.1	19

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19	Non-invasive nanosecond electroporation for biocontrol of surface infections: an in vivo study. Scientific Reports, 2018, 8, 14516.	3.3	19
20	Effects of pulsed electric fields and mild thermal treatment on antimicrobial efficacy of nisin-loaded pectin nanoparticles for food preservation. LWT - Food Science and Technology, 2020, 120, 108915.	5.2	19
21	Effects of extracellular medium conductivity on cell response in the context of sub-microsecond range calcium electroporation. Scientific Reports, 2020, 10, 3718.	3.3	19
22	Inactivation of Escherichia coli Using Nanosecond Electric Fields and Nisin Nanoparticles: A Kinetics Study. Frontiers in Microbiology, 2018, 9, 3006.	3.5	18
23	Low concentrations of acetic and formic acids enhance the inactivation of Staphylococcus aureus and Pseudomonas aeruginosa with pulsed electric fields. BMC Microbiology, 2019, 19, 73.	3.3	18
24	Membrane Permeabilization of Pathogenic Yeast in Alternating Sub-microsecond Electromagnetic Fields in Combination with Conventional Electroporation. Journal of Membrane Biology, 2018, 251, 189-195.	2.1	17
25	Electrochemotherapy Using Doxorubicin and Nanosecond Electric Field Pulses: A Pilot in Vivo Study. Molecules, 2020, 25, 4601.	3.8	17
26	Concepts and Capabilities of In-House Built Nanosecond Pulsed Electric Field (nsPEF) Generators for Electroporation: State of Art. Applied Sciences (Switzerland), 2020, 10, 4244.	2.5	17
27	Effects of high-frequency nanosecond pulses on prostate cancer cells. Scientific Reports, 2021, 11, 15835.	3.3	17
28	Experimental and Numerical Study of Electroporation Induced by Long Monopolar and Short Bipolar Pulses on Realistic 3D Irregularly Shaped Cells. IEEE Transactions on Biomedical Engineering, 2020, 67, 2781-2788.	4.2	17
29	Reversible Permeabilization of Cancer Cells by High Sub-Microsecond Magnetic Field. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	14
30	The First Application of Nanoelectrochemotherapy in Feline Oral Malignant Melanoma Treatmentâ€"Case Study. Animals, 2020, 10, 556.	2.3	14
31	Mechanisms of curcumin-based photodynamic therapy and its effects in combination with electroporation: An in vitro and molecular dynamics study. Bioelectrochemistry, 2021, 140, 107806.	4.6	14
32	Measurement of Transient Permeability of Sp2/0 Myeloma Cells: Flow Cytometric Study. Measurement Science Review, 2016, 16, 300-304.	1.0	13
33	High-power bipolar multilevel pulsed electroporator. Instrumentation Science and Technology, 2016, 44, 65-72.	1.8	13
34	Effects of Time Delay Between Unipolar Pulses in High Frequency Nano-Electrochemotherapy. IEEE Transactions on Biomedical Engineering, 2022, 69, 1726-1732.	4.2	12
35	Joule heating influence on the vitality of fungi in pulsed magnetic fields during magnetic permeabilization. Journal of Thermal Analysis and Calorimetry, 2014, 118, 681-686.	3.6	11
36	Induction of Different Sensitization Patterns of MRSA to Antibiotics Using Electroporation. Molecules, 2018, 23, 1799.	3.8	11

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37	The Impact of Extracellular Ca2+ and Nanosecond Electric Pulses on Sensitive and Drug-Resistant Human Breast and Colon Cancer Cells. Cancers, 2021, 13, 3216.	3.7	11
38	Compact Electro-Permeabilization System for Controlled Treatment of Biological Cells and Cell Medium Conductivity Change Measurement. Measurement Science Review, 2014, 14, 279-284.	1.0	10
39	Predicting electrotransfer in ultra-high frequency sub-microsecond square wave electric fields. Electromagnetic Biology and Medicine, 2020, 39, 1-8.	1.4	10
40	Contactless dielectrophoretic manipulation of biological cells using pulsed magnetic fields. IET Nanobiotechnology, 2014, 8, 118-122.	3.8	9
41	Microsecond pulsed magnetic field improves efficacy of antifungal agents on pathogenic microorganisms. Bioelectromagnetics, 2014, 35, 347-353.	1.6	9
42	Single Pulse Calibration of Magnetic Field Sensors Using Mobile 43 kJ Facility. Measurement Science Review, 2015, 15, 244-247.	1.0	9
43	Controlled inactivation of <i>Trichophyton rubrum</i> using shaped electrical pulse bursts: Parametric analysis. Biotechnology Progress, 2016, 32, 1056-1060.	2.6	9
44	Extracellular-Ca2+-Induced Decrease in Small Molecule Electrotransfer Efficiency: Comparison between Microsecond and Nanosecond Electric Pulses. Pharmaceutics, 2020, 12, 422.	4.5	9
45	High-Pulsed Electromagnetic Field Generator for Contactless Permeabilization of Cells <i>In Vitro</i>. IEEE Transactions on Magnetics, 2020, 56, 1-6.	2.1	8
46	Sub-microsecond electrotransfection using new modality of high frequency electroporation. Bioelectrochemistry, 2020, 136, 107594.	4.6	8
47	Transfection by Electroporation of Cancer and Primary Cells Using Nanosecond and Microsecond Electric Fields. Pharmaceutics, 2022, 14, 1239.	4.5	8
48	Irreversible electropermeabilization of the human pathogen Candida albicans: an in-vitro experimental study. European Biophysics Journal, 2015, 44, 9-16.	2.2	7
49	Computer Adaptive Testing Using Upper-Confidence Bound Algorithm for Formative Assessment. Applied Sciences (Switzerland), 2019, 9, 4303.	2.5	7
50	Different permeabilization patterns of splenocytes and thymocytes to combination of pulsed electric and magnetic field treatments. Bioelectrochemistry, 2018, 122, 183-190.	4.6	6
51	Bioluminescence as a sensitive electroporation indicator in sub-microsecond and microsecond range of electrical pulses. Journal of Photochemistry and Photobiology B: Biology, 2020, 213, 112066.	3.8	6
52	Low-cost experimental facility for evaluation of the effect of dynamic mechanical loads on photovoltaic modules. Eksploatacja I Niezawodnosc, 2015, 17, 334-337.	2.0	6
53	InÂvitro evaluation of nanosecond electroporation against Trichophyton rubrum with or without antifungal drugs and terpenes. Mycoscience, 2017, 58, 261-266.	0.8	5
54	Nanosecond duration pulsed electric field together with formic acid triggers caspase-dependent apoptosis in pathogenic yeasts. Bioelectrochemistry, 2019, 128, 148-154.	4.6	5

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55	Inactivation of Bacteria Using Bioactive Nanoparticles and Alternating Magnetic Fields. Nanomaterials, 2021, 11, 342.	4.1	5
56	Antimicrobial Activity of L-Lysine and Poly-L-Lysine with Pulsed Electric Fields. Applied Sciences (Switzerland), 2021, 11, 2708.	2.5	5
57	The Evidence of the Bystander Effect after Bleomycin Electrotransfer and Irreversible Electroporation. Molecules, 2021, 26, 6001.	3.8	5
58	High Frequency Bipolar Electroporator with Double-Crowbar Circuit for Load-Independent Forming of Nanosecond Pulses. Applied Sciences (Switzerland), 2022, 12, 1370.	2.5	5
59	Micro- and Nanosecond Pulses Used in Doxorubicin Electrochemotherapy in Human Breast and Colon Cancer Cells with Drug Resistance. Molecules, 2022, 27, 2052.	3.8	5
60	Design and Optimization of Pulsed Magnetic Field Generator for Cell Magneto-Permeabilization. Elektronika Ir Elektrotechnika, 2017, 23, .	0.8	4
61	Feasibility of Parylene Coating for Planar Electroporation Copper Electrodes. Medziagotyra, 2017, 23, .	0.2	3
62	Fast Ignitron-Based Magnetic Field Pulser for Biological Applications. IEEE Transactions on Magnetics, 2019, 55, 1-5.	2.1	2
63	Effects of Pulsed Electric Fields on Yeast with Prions and the Structure of Amyloid Fibrils. Applied Sciences (Switzerland), 2021, 11, 2684.	2.5	2
64	Dielectrophoretic Manipulation of Cell Transfection Efficiency During Electroporation Using a Center Needle Electrode. Applied Sciences (Switzerland), 2021, 11, 7015.	2.5	2
65	Application of pulsed electric fields for the elimination of highly drug-resistant Candida grown under modelled microgravity conditions. International Journal of Astrobiology, 2019, 18, 405-411.	1.6	1
66	Bioluminescent calcium mediated detection of nanosecond electroporation: Grasping the differences between 100Âns and 100ÂÂµs pulses. Bioelectrochemistry, 2022, 145, 108084.	4.6	1
67	Concept of high dB/dt pulse forming system for biological cell membrane permeabilization. , 2017, , .		0
68	Electroporation Cuvette with Integrated Electrodes for High Gradient Electric Field Generation. , 2021, , .		0
69	Measurement and Evaluation of Electric Pulse Parameters to Improve Efficacy of Electrochemotherapy. , 2021, , .		0