Rafael Davalos

List of Publications by Year
in descending order

182 papers	9,667 citations	36303 51 h-index	42399 92 g-index
186 all docs	186 docs citations	186 times ranked	4757 citing authors

#	Article	IF	Citations
1	Tissue Ablation with Irreversible Electroporation. Annals of Biomedical Engineering, 2005, 33, 223-231.	2.5	1,045
2	In Vivo Results of a New Focal Tissue Ablation Technique: Irreversible Electroporation. IEEE Transactions on Biomedical Engineering, 2006, 53, 1409-1415.	4.2	442
3	Tumor Ablation with Irreversible Electroporation. PLoS ONE, 2007, 2, e1135.	2.5	421
4	A Review of Basic to Clinical Studies of Irreversible Electroporation Therapy. IEEE Transactions on Biomedical Engineering, 2015, 62, 4-20.	4.2	278
5	High-frequency irreversible electroporation (H-FIRE) for non-thermal ablation without muscle contraction. BioMedical Engineering OnLine, 2011, 10, 102.	2.7	265
6	Selective isolation of live/dead cells using contactless dielectrophoresis (cDEP). Lab on A Chip, 2010, 10, 438.	6.0	248
7	High-Voltage Electrical Pulses in Oncology: Irreversible Electroporation, Electrochemotherapy, Gene Electrotransfer, Electrofusion, and Electroimmunotherapy. Radiology, 2020, 295, 254-272.	7.3	208
8	Contactless dielectrophoresis: a new technique for cell manipulation. Biomedical Microdevices, 2009, 11, 997-1006.	2.8	203
9	Experimental Characterization and Numerical Modeling of Tissue Electrical Conductivity during Pulsed Electric Fields for Irreversible Electroporation Treatment Planning. IEEE Transactions on Biomedical Engineering, 2012, 59, 1076-1085.	4.2	174
10	Mathematical Modeling of Irreversible Electroporation for Treatment Planning. Technology in Cancer Research and Treatment, 2007, 6, 275-286.	1.9	167
11	Theoretical analysis of the thermal effects during in vivo tissue electroporation. Bioelectrochemistry, 2003, 61, 99-107.	4.6	165
12	An insulator-based (electrodeless) dielectrophoretic concentrator for microbes in water. Journal of Microbiological Methods, 2005, 62, 317-326.	1.6	163
13	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
14	Intracranial Nonthermal Irreversible Electroporation: InÂVivo Analysis. Journal of Membrane Biology, 2010, 236, 127-136.	2.1	138
15	Non-Thermal Irreversible Electroporation (N-TIRE) and Adjuvant Fractionated Radiotherapeutic Multimodal Therapy for Intracranial Malignant Glioma in a Canine Patient. Technology in Cancer Research and Treatment, 2011, 10, 73-83.	1.9	128
16	A Parametric Study Delineating Irreversible Electroporation from Thermal Damage Based on a Minimally Invasive Intracranial Procedure. BioMedical Engineering OnLine, 2011, 10, 34.	2.7	118
17	High-frequency irreversible electroporation is an effective tumor ablation strategy that induces immunologic cell death and promotes systemic anti-tumor immunity. EBioMedicine, 2019, 44, 112-125.	6.1	116
18	Successful Treatment of a Large Soft Tissue Sarcoma With Irreversible Electroporation. Journal of Clinical Oncology, 2011, 29, e372-e377.	1.6	113

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19	Temperature considerations during irreversible electroporation. International Journal of Heat and Mass Transfer, 2008, 51, 5617-5622.	4.8	111
20	Isolation of prostate tumor initiating cells (TICs) through their dielectrophoretic signature. Lab on A Chip, 2012, 12, 182-189.	6.0	108
21	Theoretical Considerations of Tissue Electroporation With High-Frequency Bipolar Pulses. IEEE Transactions on Biomedical Engineering, 2011, 58, 1474-1482.	4.2	104
22	In vivo characterization and numerical simulation of prostate properties for non-thermal irreversible electroporation ablation. Prostate, 2014, 74, 458-468.	2.3	103
23	Treatment of breast cancer through the application of irreversible electroporation using a novel minimally invasive single needle electrode. Breast Cancer Research and Treatment, 2010, 123, 295-301.	2.5	101
24	Irreversible Electroporation: Background, Theory, and Review of Recent Developments in Clinical Oncology. Bioelectricity, 2019, 1, 214-234.	1.1	101
25	Electrical Impedance Tomography for Imaging Tissue Electroporation. IEEE Transactions on Biomedical Engineering, 2004, 51, 761-767.	4.2	100
26	A Study of the Immunological Response to Tumor Ablation with Irreversible Electroporation. Technology in Cancer Research and Treatment, 2007, 6, 301-305.	1.9	98
27	Selective concentration of human cancer cells using contactless dielectrophoresis. Electrophoresis, 2011, 32, 2523-2529.	2.4	97
28	Bursts of Bipolar Microsecond Pulses Inhibit Tumor Growth. Scientific Reports, 2015, 5, 14999.	3.3	96
29	In-vitro bipolar nano- and microsecond electro-pulse bursts for irreversible electroporation therapies. Bioelectrochemistry, 2014, 100, 69-79.	4.6	91
30	Nonthermal irreversible electroporation for intracranial surgical applications. Journal of Neurosurgery, 2011, 114, 681-688.	1.6	89
31	Towards the creation of decellularized organ constructs using irreversible electroporation and active mechanical perfusion. BioMedical Engineering OnLine, 2010, 9, 83.	2.7	85
32	A feasibility study for electrical impedance tomography as a means to monitor tissue electroporation for molecular medicine. IEEE Transactions on Biomedical Engineering, 2002, 49, 400-403.	4.2	83
33	The Feasibility of Irreversible Electroporation for the Treatment of Breast Cancer and Other Heterogeneous Systems. Annals of Biomedical Engineering, 2009, 37, 2615-25.	2.5	83
34	Modeling and development of a low frequency contactless dielectrophoresis (cDEP) platform to sort cancer cells from dilute whole blood samples. Biosensors and Bioelectronics, 2011, 30, 13-20.	10.1	82
35	A Three-Dimensional InÂVitro Tumor Platform for Modeling Therapeutic Irreversible Electroporation. Biophysical Journal, 2012, 103, 2033-2042.	0.5	81
36	Mitigation of impedance changes due to electroporation therapy using bursts of high-frequency bipolar pulses. BioMedical Engineering OnLine, 2015, 14, S3.	2.7	81

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37	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
38	Sample concentration and impedance detection on a microfluidic polymer chip. Biomedical Microdevices, 2008, 10, 661-670.	2.8	79
39	Targeted cellular ablation based on the morphology of malignant cells. Scientific Reports, 2015, 5, 17157.	3.3	75
40	Improved Local and Systemic Anti-Tumor Efficacy for Irreversible Electroporation in Immunocompetent versus Immunodeficient Mice. PLoS ONE, 2013, 8, e64559.	2.5	73
41	Safety and feasibility of the NanoKnife system for irreversible electroporation ablative treatment of canine spontaneous intracranial gliomas. Journal of Neurosurgery, 2015, 123, 1008-1025.	1.6	70
42	Investigating dielectric properties of different stages of syngeneic murine ovarian cancer cells. Biomicrofluidics, 2013, 7, 11809.	2.4	68
43	In Vivo Irreversible Electroporation Kidney Ablation: Experimentally Correlated Numerical Models. IEEE Transactions on Biomedical Engineering, 2015, 62, 561-569.	4.2	68
44	Joule heating effects on particle immobilization in insulatorâ€based dielectrophoretic devices. Electrophoresis, 2014, 35, 352-361.	2.4	62
45	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
46	High-Frequency Irreversible Electroporation for Intracranial Meningioma: A Feasibility Study in a Spontaneous Canine Tumor Model. Technology in Cancer Research and Treatment, 2018, 17, 153303381878528.	1.9	58
47	Fluid shear stress impacts ovarian cancer cell viability, subcellular organization, and promotes genomic instability. PLoS ONE, 2018, 13, e0194170.	2.5	57
48	Electromagnetically Controlled Biological Assembly of Aligned Bacterial Cellulose Nanofibers. Annals of Biomedical Engineering, 2010, 38, 2475-2484.	2.5	56
49	Improving cancer therapies by targeting the physical and chemical hallmarks of the tumor microenvironment. Cancer Letters, 2016, 380, 330-339.	7.2	56
50	Avoiding nerve stimulation in irreversible electroporation: a numerical modeling study. Physics in Medicine and Biology, 2017, 62, 8060-8079.	3.0	54
51	Dynamics of Cell Death After Conventional IRE and H-FIRE Treatments. Annals of Biomedical Engineering, 2020, 48, 1451-1462.	2.5	54
52	Characterization of Conductivity Changes During High-Frequency Irreversible Electroporation for Treatment Planning. IEEE Transactions on Biomedical Engineering, 2018, 65, 1810-1819.	4.2	53
53	Contactless dielectrophoretic spectroscopy: Examination of the dielectric properties of cells found in blood. Electrophoresis, 2011, 32, 3164-3171.	2.4	52
54	Dielectrophoretic differentiation of mouse ovarian surface epithelial cells, macrophages, and fibroblasts using contactless dielectrophoresis. Biomicrofluidics, 2012, 6, 024104.	2.4	52

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55	Starting a Fire Without Flame: The Induction of Cell Death and Inflammation in Electroporation-Based Tumor Ablation Strategies. Frontiers in Oncology, 2020, 10, 1235.	2.8	52
56	Implications and considerations of thermal effects when applying irreversible electroporation tissue ablation therapy. Prostate, 2015, 75, 1114-1118.	2.3	51
57	Induction of rapid, reproducible hepatic ablations using next-generation, high frequency irreversible electroporation (H-FIRE) inÂvivo. Hpb, 2016, 18, 726-734.	0.3	50
58	Predictive therapeutic planning for irreversible electroporation treatment of spontaneous malignant glioma. Medical Physics, 2017, 44, 4968-4980.	3.0	50
59	A microfluidic model of the bloodâ€"brain barrier to study permeabilization by pulsed electric fields. RSC Advances, 2017, 7, 42811-42818.	3.6	50
60	Performance impact of dynamic surface coatings on polymeric insulator-based dielectrophoretic particle separators. Analytical and Bioanalytical Chemistry, 2008, 390, 847-855.	3.7	47
61	Enhanced contactless dielectrophoresis enrichment and isolation platform via cell-scale microstructures. Biomicrofluidics, 2016, 10, 014109.	2.4	47
62	Separation of mixtures of particles in a multipart microdevice employing insulatorâ€based dielectrophoresis. Electrophoresis, 2011, 32, 2456-2465.	2.4	46
63	Modeling of Transmembrane Potential in Realistic Multicellular Structures before Electroporation. Biophysical Journal, 2016, 111, 2286-2295.	0.5	46
64	Cytoskeletal Disruption after Electroporation and Its Significance to Pulsed Electric Field Therapies. Cancers, 2020, 12, 1132.	3.7	46
65	The Development of Polymeric Devices as Dielectrophoretic Separators and Concentrators. MRS Bulletin, 2006, 31, 120-124.	3.5	45
66	7.0-T Magnetic Resonance Imaging Characterization of Acute Blood-Brain-Barrier Disruption Achieved with Intracranial Irreversible Electroporation. PLoS ONE, 2012, 7, e50482.	2.5	45
67	A Preliminary Study to Delineate Irreversible Electroporation From Thermal Damage Using the Arrhenius Equation. Journal of Biomechanical Engineering, 2009, 131, 074509.	1.3	44
68	Experimental High-Frequency Irreversible Electroporation Using a Single-Needle Delivery Approach for Nonthermal Pancreatic Ablation InÂVivo. Journal of Vascular and Interventional Radiology, 2019, 30, 854-862.e7.	0.5	44
69	High-Frequency Irreversible Electroporation for Treatment of Primary Liver Cancer: A Proof-of-Principle Study in Canine Hepatocellular Carcinoma. Journal of Vascular and Interventional Radiology, 2020, 31, 482-491.e4.	0.5	40
70	A Comprehensive Characterization of Parameters Affecting High-Frequency Irreversible Electroporation Lesions. Annals of Biomedical Engineering, 2017, 45, 2524-2534.	2.5	39
71	In Vitro and Numerical Support for Combinatorial Irreversible Electroporation and Electrochemotherapy Glioma Treatment. Annals of Biomedical Engineering, 2014, 42, 475-487.	2.5	38
72	Effects of internal electrode cooling on irreversible electroporation using a perfused organ model. International Journal of Hyperthermia, 2018, 35, 44-55.	2.5	38

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73	Understanding the role of calcium-mediated cell death in high-frequency irreversible electroporation. Bioelectrochemistry, 2020, 131, 107369.	4.6	36
74	Temporal Characterization of Bloodâ€"Brain Barrier Disruption with High-Frequency Electroporation. Cancers, 2019, 11, 1850.	3.7	34
75	Extracellular sodium dependence of the conduction velocity-calcium relationship: evidence of ephaptic self-attenuation. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H1129-H1139.	3.2	32
76	Electrical Impedance Tomography of Cell Viability in Tissue With Application to Cryosurgery. Journal of Biomechanical Engineering, 2004, 126, 305-309.	1.3	32
77	Microfluidic mixing using contactless dielectrophoresis. Electrophoresis, 2011, 32, 2569-2578.	2.4	31
78	Histotripsy Ablation Alters the Tumor Microenvironment and Promotes Immune System Activation in a Subcutaneous Model of Pancreatic Cancer. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2987-3000.	3.0	31
79	Focal blood-brain-barrier disruption with high-frequency pulsed electric fields. Technology, 2014, 02, 206-213.	1.4	30
80	The Feasibility of a Smart Surgical Probe for Verification of IRE Treatments Using Electrical Impedance Spectroscopy. IEEE Transactions on Biomedical Engineering, 2015, 62, 2674-2684.	4.2	30
81	Characterization of Nonlinearity and Dispersion in Tissue Impedance During High-Frequency Electroporation. IEEE Transactions on Biomedical Engineering, 2018, 65, 2190-2201.	4.2	30
82	Sphingolipid metabolites modulate dielectric characteristics of cells in a mouse ovarian cancer progression model. Integrative Biology (United Kingdom), 2013, 5, 843-852.	1.3	29
83	Cycled pulsing to mitigate thermal damage for multi-electrode irreversible electroporation therapy. International Journal of Hyperthermia, 2019, 36, 952-962.	2.5	28
84	The Effects of Metallic Implants on Electroporation Therapies: Feasibility of Irreversible Electroporation for Brachytherapy Salvage. CardioVascular and Interventional Radiology, 2013, 36, 1638-1645.	2.0	27
85	Characterization of Irreversible Electroporation Ablation with a Validated Perfused Organ Model. Journal of Vascular and Interventional Radiology, 2016, 27, 1913-1922.e2.	0.5	27
86	Electroporation of Brain Endothelial Cells on Chip toward Permeabilizing the Blood-Brain Barrier. Biophysical Journal, 2016, 110, 503-513.	0.5	27
87	Real-time prediction of patient immune cell modulation during irreversible electroporation therapy. Scientific Reports, 2019, 9, 17739.	3.3	25
88	Multilayer contactless dielectrophoresis: Theoretical considerations. Electrophoresis, 2012, 33, 1938-1946.	2.4	24
89	A feasibility study for enrichment of highly aggressive cancer subpopulations by their biophysical properties via dielectrophoresis enhanced with synergistic fluid flow. Electrophoresis, 2017, 38, 1507-1514.	2.4	24
90	Characterization of sequentially-staged cancer cells using electrorotation. PLoS ONE, 2019, 14, e0222289.	2.5	24

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91	High-Frequency Irreversible Electroporation: Safety and Efficacy of Next-Generation Irreversible Electroporation Adjacent to Critical Hepatic Structures. Surgical Innovation, 2017, 24, 276-283.	0.9	23
92	Irreversible electroporation inhibits pro-cancer inflammatory signaling in triple negative breast cancer cells. Bioelectrochemistry, 2017, 113, 42-50.	4.6	23
93	Characterization of Cell Membrane Permeability <i>In Vitro</i> Part II: Computational Model of Electroporation-Mediated Membrane Transport*. Technology in Cancer Research and Treatment, 2018, 17, 153303381879249.	1.9	23
94	A Theoretical Argument for Extended Interpulse Delays in Therapeutic High-Frequency Irreversible Electroporation Treatments. IEEE Transactions on Biomedical Engineering, 2021, 68, 1999-2010.	4.2	23
95	Impedimetric and optical interrogation of single cells in a microfluidic device for real-time viability and chemical response assessment. Biosensors and Bioelectronics, 2008, 23, 845-851.	10.1	22
96	Pathology of non-thermal irreversible electroporation (N-TIRE)-induced ablation of the canine brain. Journal of Veterinary Science, 2013, 14, 433.	1.3	22
97	Folate Conjugated Cellulose Nanocrystals Potentiate Irreversible Electroporation-induced Cytotoxicity for the Selective Treatment of Cancer Cells. Technology in Cancer Research and Treatment, 2015, 14, 757-766.	1.9	22
98	Ablation outcome of irreversible electroporation on potato monitored by impedance spectrum under multi-electrode system. BioMedical Engineering OnLine, 2018, 17, 126.	2.7	22
99	The feasibility of using irreversible electroporation to introduce pores in bacterial cellulose scaffolds for tissue engineering. Applied Microbiology and Biotechnology, 2015, 99, 4785-4794.	3.6	21
100	Irreversible electroporation for the ablation of pancreatic malignancies: A patientâ€specific methodology. Journal of Surgical Oncology, 2017, 115, 711-717.	1.7	21
101	Enhancing Irreversible Electroporation by Manipulating Cellular Biophysics with a Molecular Adjuvant. Biophysical Journal, 2017, 113, 472-480.	0.5	21
102	An Experimental and Numerical Investigation of Phase Change Electrodes for Therapeutic Irreversible Electroporation. Journal of Biomechanical Engineering, 2013, 135, 111009.	1.3	20
103	High-frequency irreversible electroporation targets resilient tumor-initiating cells in ovarian cancer. Integrative Biology (United Kingdom), 2017, 9, 979-987.	1.3	20
104	Single Cell Forces after Electroporation. ACS Nano, 2021, 15, 2554-2568.	14.6	20
105	Disabledâ€2 modulates homotypic and heterotypic platelet interactions by binding to sulfatides. British Journal of Haematology, 2011, 154, 122-133.	2.5	18
106	The Feasibility of Enhancing Susceptibility of Glioblastoma Cells to IRE Using a Calcium Adjuvant. Annals of Biomedical Engineering, 2017, 45, 2535-2547.	2.5	18
107	Multi-Tissue Analysis on the Impact of Electroporation on Electrical and Thermal Properties. IEEE Transactions on Biomedical Engineering, 2021, 68, 771-782.	4.2	18
108	Rapid Impedance Spectroscopy for Monitoring Tissue Impedance, Temperature, and Treatment Outcome During Electroporation-Based Therapies. IEEE Transactions on Biomedical Engineering, 2021, 68, 1536-1546.	4.2	18

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109	Structure, Sulfatide Binding Properties, and Inhibition of Platelet Aggregation by a Disabled-2 Protein-derived Peptide. Journal of Biological Chemistry, 2012, 287, 37691-37702.	3.4	17
110	Pilot study of irreversible electroporation for intracranial surgery. , 2009, 2009, 6513-6.		16
111	Simultaneous electrokinetic flow and dielectrophoretic trapping using perpendicular static and dynamic electric fields. Microfluidics and Nanofluidics, 2013, 15, 599-609.	2.2	16
112	Development of a Multi-Pulse Conductivity Model for Liver Tissue Treated With Pulsed Electric Fields. Frontiers in Bioengineering and Biotechnology, 2020, 8, 396.	4.1	16
113	Establishing an immunocompromised porcine model of human cancer for novel therapy development with pancreatic adenocarcinoma and irreversible electroporation. Scientific Reports, 2021, 11, 7584.	3.3	16
114	Patient Derived Xenografts Expand Human Primary Pancreatic Tumor Tissue Availability for ex vivo Irreversible Electroporation Testing. Frontiers in Oncology, 2020, 10, 843.	2.8	15
115	Characterization of Ablation Thresholds for 3D-Cultured Patient-Derived Glioma Stem Cells in Response to High-Frequency Irreversible Electroporation. Research, 2019, 2019, 8081315.	5.7	15
116	Towards the development of latent heat storage electrodes for electroporation-based therapies. Applied Physics Letters, 2012, 101, 083902.	3.3	14
117	The feasibility of using dielectrophoresis for isolation of glioblastoma subpopulations with increased stemness. Electrophoresis, 2019, 40, 2592-2600.	2.4	14
118	Isolation of rare cancer cells from blood cells using dielectrophoresis. , 2012, 2012, 590-3.		13
119	Label-free Isolation and Enrichment of Cells Through Contactless Dielectrophoresis. Journal of Visualized Experiments, 2013, , .	0.3	13
120	In Vitro Experimental and Numerical Studies on the Preferential Ablation of Chemo-Resistant Tumor Cells Induced by High-Voltage Nanosecond Pulsed Electric Fields. IEEE Transactions on Biomedical Engineering, 2021, 68, 2400-2411.	4.2	13
121	Advances in Therapeutic Electroporation to Mitigate Muscle Contractions. Journal of Membrane Science & Technology, 2012, 02, .	0.5	13
122	An Evolutionary-Genetic Approach to Heat Transfer Analysis. Journal of Heat Transfer, 1996, 118, 528-531.	2.1	12
123	Electrical conductivity changes during irreversible electroporation treatment of brain cancer. , 2011, 2011, 739-42.		12
124	Development of an In Vitro 3D Brain Tissue Model Mimicking In Vivo-Like Pro-inflammatory and Pro-oxidative Responses. Annals of Biomedical Engineering, 2018, 46, 877-887.	2.5	12
125	Electrical Characterization of Human Biological Tissue for Irreversible Electroporation Treatments. , 2018, 2018, 4170-4173.		12
126	Characterization of Cell Membrane Permeability<i>In Vitro</i>Part I: Transport Behavior Induced by Single-Pulse Electric Fields*. Technology in Cancer Research and Treatment, 2018, 17, 153303381879249.	1.9	12

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127	Modeling iontophoretic drug delivery in a microfluidic device. Lab on A Chip, 2020, 20, 3310-3321.	6.0	12
128	Differential effects of nanosecond pulsed electric fields on cells representing progressive ovarian cancer. Bioelectrochemistry, 2021, 142, 107942.	4.6	12
129	A constriction channel analysis of astrocytoma stiffness and disease progression. Biomicrofluidics, 2021, 15, 024103.	2.4	11
130	Nonthermal Irreversible Electroporation as a Focal Ablation Treatment for Brain Cancer. Tumors of the Central Nervous System, 2014, , 171-182.	0.1	11
131	Expression and activity of the urokinase plasminogen activator system in canine primary brain tumors. OncoTargets and Therapy, 2017, Volume 10, 2077-2085.	2.0	10
132	Simplified Non-Thermal Tissue Ablation With A Single Insertion Device Enabled By Bipolar High-Frequency Pulses. IEEE Transactions on Biomedical Engineering, 2020, 67, 1-1.	4.2	10
133	EView: An electric field visualization web platform for electroporation-based therapies. Computer Methods and Programs in Biomedicine, 2020, 197, 105682.	4.7	10
134	Development of an endothermic electrode for electroporation-based therapies: A simulation study. Applied Physics Letters, 2020, 117, .	3.3	10
135	Electrotaxis-on-Chip to Quantify Neutrophil Migration Towards Electrochemical Gradients. Frontiers in Immunology, 2021, 12, 674727.	4.8	10
136	Self-aligned microfluidic contactless dielectrophoresis device fabricated by single-layer imprinting on cyclic olefin copolymer. Analytical and Bioanalytical Chemistry, 2020, 412, 3881-3889.	3.7	9
137	A novel ultralow conductivity electromanipulation buffer improves cell viability and enhances dielectrophoretic consistency. Electrophoresis, 2021, 42, 1366-1377.	2.4	9
138	A review: Dielectrophoresis for characterizing and separating similar cell subpopulations based on bioelectric property changes due to disease progression and therapy assessment. Electrophoresis, 2021, 42, 2423-2444.	2.4	9
139	The use of evolutionary-genetic analogy in numerical analysis. Communications in Numerical Methods in Engineering, 1998, 14, 151-160.	1.3	8
140	Non-thermal irreversible electroporation for deep intracranial disorders. , 2010, 2010, 2743-6.		8
141	An experimental investigation of temperature changes during electroporation. , 2011, , .		8
142	Treatment of Infiltrative Superficial Tumors in Awake Standing Horses Using Novel High-Frequency Pulsed Electrical Fields. Frontiers in Veterinary Science, 2019, 6, 265.	2.2	8
143	Separation of Macrophages and Fibroblasts Using Contactless Dielectrophoresis and a Novel ImageJ Macro. Bioelectricity, 2019, 1, 49-55.	1.1	8
144	On-Chip Impedance for Quantifying Parasitic Voltages During AC Electrokinetic Trapping. IEEE Transactions on Biomedical Engineering, 2020, 67, 1664-1671.	4.2	8

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145	Thermal Aspects of Irreversible Electroporation. Series in Biomedical Engineering, 2010, , 123-154.	0.5	8
146	Experimental and Numerical Investigation of Parameters Affecting High-Frequency Irreversible Electroporation for Prostate Cancer Ablation. Journal of Biomechanical Engineering, 2022, 144, .	1.3	8
147	An Investigation for Large Volume, Focal Blood-Brain Barrier Disruption with High-Frequency Pulsed Electric Fields. Pharmaceuticals, 2021, 14, 1333.	3.8	8
148	Laser Machined Fiber-Based Microprobe: Application in Microscale Electroporation. Advanced Fiber Materials, 2022, 4, 859-872.	16.1	8
149	High-Frequency Irreversible Electroporation (H-FIRE) Induced Bloodâ€"Brain Barrier Disruption Is Mediated by Cytoskeletal Remodeling and Changes in Tight Junction Protein Regulation. Biomedicines, 2022, 10, 1384.	3.2	8
150	Experimental characterization of intrapulse tissue conductivity changes for electroporation. , 2011, 2011, 5581-4.		7
151	History of Electroporation. , 2018, , 13-37.		7
152	A Comparative Modeling Study of Thermal Mitigation Strategies in Irreversible Electroporation Treatments. Journal of Heat Transfer, 2022, 144, .	2.1	7
153	Reinforced vesicles withstand rigors of microfluidic electroporation. Sensors and Actuators B: Chemical, 2007, 125, 337-342.	7.8	6
154	Exploration of Novel Pathways Underlying Irreversible Electroporation Induced Anti-Tumor Immunity in Pancreatic Cancer. Frontiers in Oncology, 2022, 12, 853779.	2.8	6
155	Numerical simulation modeling of the irreversible electroporation treatment zone for focal therapy of prostate cancer, correlation with whole-mount pathology and T2-weighted MRI sequences. Therapeutic Advances in Urology, 2019, 11, 175628721985230.	2.0	5
156	Generation of Tumor-activated T cells Using Electroporation. Bioelectrochemistry, 2021, 142, 107886.	4.6	5
157	Maximizing Local Access to Therapeutic Deliveries in Glioblastoma. Part III: Irreversible Electroporation and High-Frequency Irreversible Electroporation for the Eradication of Glioblastoma. , 0, , 373-393.		5
158	High-frequency irreversible electroporation brain tumor ablation: exploring the dynamics of cell death and recovery. Bioelectrochemistry, 2022, 144, 108001.	4.6	5
159	A study using irreversible electroporation to treat large, irregular tumors in a canine patient. , 2010, 2010, 2747-50.		4
160	Electrical Manipulation and SortingÂof Cells. Microsystems and Nanosystems, 2017, , 57-92.	0.1	4
161	Frequency-specific, valveless flow control in insect-mimetic microfluidic devices. Bioinspiration and Biomimetics, 2021, 16, 036004.	2.9	4
162	Modeling of a single bipolar electrode with tines for irreversible electroporation delivery. Computers in Biology and Medicine, 2022, 142, 104870.	7.0	4

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163	Electrokinetics and Rare-Cell Detection. RSC Detection Science, 2014, , 61-83.	0.0	3
164	Biological Responses. , 2017, , 155-274.		3
165	Multi-scale Biophysical Principles in Clinical Irreversible Electroporation. , 2018, , 41-66.		3
166	Comparison of analysis methods for determination of dynamic tissue conductivity during microseconds-long pulsed electric fields. Biomedical Signal Processing and Control, 2022, 72, 103305.	5.7	3
167	Medical Applications. , 2017, , 275-388.		2
168	Thermal Considerations with Tissue Electroporation. , 2017, , 1-31.		2
169	Special Collection on Electroporation-Based Therapies: A Selection of Papers From the Second World Congress on Electroporation. Technology in Cancer Research and Treatment, 2019, 18, 153303381985296.	1.9	1
170	Cell Electroporation Mechanisms and Preclinical Foundation for Focal Therapy. , 2013, , 309-329.		1
171	Thermal Considerations with Tissue Electroporation. , 2018, , 1-31.		1
172	A Multiplexed Microfluidic Device to Measure Blood-Brain Barrier Disruption by Pulsed Electric Fields. , 2021, 2021, 1222-1225.		1
173	Mixing Enhancement in Microfluidic Devices Using Contactless Dielectrophoresis (cDEP). , 2011, , .		0
174	Enrichment of Cancer Cells Using a High Throughput Contactless Dielectrophoretic (CDEP) Microfluidic Device. , 2011, , .		0
175	A low cost solution for the fabrication of dielectrophoretic microfluidic devices and embedded electrodes. , 2011, 2011, 8384-7.		0
176	2013 AES Annual Meeting. Electrophoresis, 2014, 35, 1767-1767.	2.4	0
177	Tissue Ablation by Irreversible Electroporation. , 2017, , 707-721.		0
178	Preclinical Studies on Irreversible Electroporation. , 2017, , 1527-1542.		0
179	Perfused organ model development and evaluation for irreversible electroporation investigations. , 2017, , .		0
180	Thermal Considerations with Tissue Electroporation. , 2018, , 2489-2519.		0

#	Article	IF	Citations
181	Preclinical Studies on Irreversible Electroporation. , 2016, , 1-16.		0
182	Tissue Ablation by Irreversible Electroporation. , 2017, , 1-15.		0