Lea Rems

List of Publications by Year
in descending order

25 papers	1,326 citations	471509 17 h-index	642732 23 g-index
30 all docs	30 docs citations	30 times ranked	1232 citing authors

#	Article	IF	Citations
1	Membrane Electroporation and Electropermeabilization: Mechanisms and Models. Annual Review of Biophysics, 2019, 48, 63-91.	10.0	417
2	Tutorial: Electroporation of cells in complex materials and tissue. Journal of Applied Physics, 2016, 119, .	2.5	145
3	Cell electrofusion using nanosecond electric pulses. Scientific Reports, 2013, 3, 3382.	3.3	110
4	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
5	The contribution of lipid peroxidation to membrane permeability in electropermeabilization: A molecular dynamics study. Bioelectrochemistry, 2019, 125, 46-57.	4.6	71
6	Lipid vesicles in pulsed electric fields: Fundamental principles of the membrane response and its biomedical applications. Advances in Colloid and Interface Science, 2017, 249, 248-271.	14.7	64
7	Electroporation of Intracellular Liposomes Using Nanosecond Electric Pulsesâ€"A Theoretical Study. IEEE Transactions on Biomedical Engineering, 2013, 60, 2624-2635.	4.2	61
8	Response of an actin network in vesicles under electric pulses. Scientific Reports, 2019, 9, 8151.	3.3	43
9	Pulsed Electric Fields Can Create Pores in the Voltage Sensors of Voltage-Gated Ion Channels. Biophysical Journal, 2020, 119, 190-205.	0.5	43
10	Flow of DNA in micro/nanofluidics: From fundamentals to applications. Biomicrofluidics, 2016, 10, 043403.	2.4	42
11	Properties of lipid electropores I: Molecular dynamics simulations of stabilized pores by constant charge imbalance. Bioelectrochemistry, 2016, 109, 108-116.	4.6	42
12	Actin networks regulate the cell membrane permeability during electroporation. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183468.	2.6	36
13	Assessing the electro-deformation and electro-poration of biological cells using a three-dimensional finite element model. Applied Physics Letters, 2019, 114, .	3.3	33
14	Properties of lipid electropores II: Comparison of continuum-level modeling of pore conductance to molecular dynamics simulations. Bioelectrochemistry, 2016, 112, 112-124.	4.6	25
15	Modeling electroporation of the non-treated and vacuum impregnated heterogeneous tissue of spinach leaves. Innovative Food Science and Emerging Technologies, 2015, 29, 55-64.	5.6	23
16	The role of gel-phase domains in electroporation of vesicles. Scientific Reports, 2018, 8, 4758.	3.3	21
17	Revisiting the role of pulsed electric fields in overcoming the barriers to in vivo gene electrotransfer. Bioelectrochemistry, 2022, 144, 107994.	4.6	20
18	DNA-membrane complex formation during electroporation is DNA size-dependent. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183089.	2.6	19

#	Article	IF	Citations
19	Identification of electroporation sites in the complex lipid organization of the plasma membrane. ELife, 2022, 11, .	6.0	11
20	DNA translocation to giant unilamellar vesicles during electroporation is independent of DNA size. Soft Matter, 2019, 15, 9187-9194.	2.7	8
21	Applicative Use of Electroporation Models. Advances in Biomembranes and Lipid Self-Assembly, 2017, 26, 1-50.	0.6	4
22	Biological Responses. , 2017, , 155-274.		3
23	Lipid Pores: Molecular and Continuum Models. , 2017, , 3-23.		1
24	Molecular Dynamics of Cell Membrane Electroporation. Biophysical Journal, 2021, 120, 42a.	0.5	0
25	The Influence of Intracellular Vesicle Size and Position on the Transmembrane Voltage Induced by Nanosecond Electric Fields. IFMBE Proceedings, 2011, , 255-258.	0.3	0