Michal Cifra

List of Publications by Year
in descending order

91 papers	1,615 citations	361045 20 h-index	329751 37 g-index
97 all docs	97 docs citations	97 times ranked	1285 citing authors

#	Article	IF	Citations
1	Lab-on-chip microscope platform for electro-manipulation of a dense microtubules network. Scientific Reports, 2022, 12, 2462.	1.6	6
2	Electro-Modulation of Tubulin Properties and Function. Methods in Molecular Biology, 2022, 2430, 61-70.	0.4	0
3	Possible molecular and cellular mechanisms at the basis of atmospheric electromagnetic field bioeffects. International Journal of Biometeorology, 2021, 65, 59-67.	1.3	18
4	The role of magnetic fields in neurodegenerative diseases. International Journal of Biometeorology, 2021, 65, 107-117.	1.3	20
5	Challenges in coupling atmospheric electricity with biological systems. International Journal of Biometeorology, 2021, 65, 45-58.	1.3	23
6	Glossary on atmospheric electricity and its effects on biology. International Journal of Biometeorology, 2021, 65, 5-29.	1.3	9
7	Microfluidic on-chip microwave sensing of the self-assembly state of tubulin. Sensors and Actuators B: Chemical, 2021, 328, 129068.	4.0	9
8	Toward the creation of an ontology for the coupling of atmospheric electricity with biological systems. International Journal of Biometeorology, 2021, 65, 31-44.	1.3	3
9	Modulation of Microtubule Systems by Intense Nanosecond Electric Pulses. Biophysical Journal, 2021, 120, 24a.	0.2	0
10	Biological autoluminescence for assessing oxidative processes in yeast cell cultures. Scientific Reports, 2021, 11, 10852.	1.6	3
11	Molecular dynamics simulation dataset of a microtubule ring in electric field. Data in Brief, 2021, 38, 107337.	0.5	0
12	Electro-opening of a microtubule lattice in silico. Computational and Structural Biotechnology Journal, 2021, 19, 1488-1496.	1.9	6
13	Biological autoluminescence as a noninvasive monitoring tool for chemical and physical modulation of oxidation in yeast cell culture. Scientific Reports, 2021, 11, 328.	1.6	6
14	Molecular understanding of electromagnetic field-biomatter interaction for rational bio/chemical sensing device design. , 2021, , .		0
15	Nanosecond Pulsed Electric Field Labâ€onâ€Chip Integrated in Superâ€Resolution Microscope for Cytoskeleton Imaging. Advanced Materials Technologies, 2020, 5, 1900669.	3.0	11
16	Dataset of molecular dynamics simulation trajectories of amino-acid solutions with various force fields, water models and modified force field parameters. Data in Brief, 2020, 30, 105483.	0.5	3
17	Microtubule Cytoskeleton Remodeling by Nanosecond Pulsed Electric Fields. Advanced Biology, 2020, 4, e2000070.	3.0	13
18	Dependence of amino-acid dielectric relaxation on solute-water interaction: Molecular dynamics study. Journal of Molecular Liquids, 2020, 303, 112613.	2.3	3

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19	Enhancement of the biological autoluminescence by mito-liposomal gold nanoparticle nanocarriers. Journal of Photochemistry and Photobiology B: Biology, 2020, 204, 111812.	1.7	7
20	Biological autoluminescence as a non-invasive monitoring tool for pulsed electric field effects on yeast cells. , 2020, , .		2
21	Reversible and Irreversible Modulation of Tubulin Selfâ€Assembly by Intense Nanosecond Pulsed Electric Fields. Advanced Materials, 2019, 31, 1903636.	11.1	29
22	Tubulin response to intense nanosecond-scale electric field in molecular dynamics simulation. Scientific Reports, 2019, 9, 10477.	1.6	45
23	Selfâ€Assembly: Reversible and Irreversible Modulation of Tubulin Selfâ€Assembly by Intense Nanosecond Pulsed Electric Fields (Adv. Mater. 39/2019). Advanced Materials, 2019, 31, 1970280.	11.1	0
24	Short-time fractal analysis of biological autoluminescence. PLoS ONE, 2019, 14, e0214427.	1.1	10
25	Monitoring of Hydroxyl Radical Induced Oxidation of Yeast Cells Using Biological Autoluminescence. , 2019, , .		0
26	Modulation of micro/nanobiostructureâ€™s functions by intense nanosecond pulsed electric fields. , 2019, , .		1
27	Molecular dynamics simulation of the nanosecond pulsed electric field effect on kinesin nanomotor. Scientific Reports, 2019, 9, 19721.	1.6	17
28	Water Models in Molecular Dynamics Simulation Prediction of Dielectric Properties of Biomaterials. IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology, 2019, 3, 97-104.	2.3	9
29	Peter Barlowâ€™s insights and contributions to the study of tidal gravity variations and ultra-weak light emissions in plants. Annals of Botany, 2018, 122, 757-766.	1.4	2
30	Roadmap on semiconductorâ€“cell biointerfaces. Physical Biology, 2018, 15, 031002.	0.8	45
31	Measurement of Weak Low Frequency Electromagnetic Field Effects on Cells. , 2018, , .		0
32	Endogenous Chemiluminescence from Germinating Arabidopsis Thaliana Seeds. Scientific Reports, 2018, 8, 16231.	1.6	19
33	Molecular Dynamics Simulation Study of Intense Electric Field Effect on Tubulin. , 2018, , .		0
34	Rational design of sensor for broadband dielectric spectroscopy of biomolecules. Sensors and Actuators B: Chemical, 2018, 273, 62-69.	4.0	14
35	Electromagnetic elds and optomechanics in cancer diagnostics and treatment. Frontiers in Bioscience - Landmark, 2018, 23, 1391-1406.	3.0	7
36	Broadband Wireless Sensing System for Non-Invasive Testing of Biological Samples. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 251-259.	2.7	45

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37	Influence of non-adherent yeast cells on electrical characteristics of diamond-based field-effect transistors. Applied Surface Science, 2017, 395, 214-219.	3.1	7
38	Non-Invasive Label-Free Imaging of Oxidative Processes in Human Skin. Biophysical Journal, 2017, 112, 581a.	0.2	0
39	Microvolume Dielectric Spectroscopy and Molecular Dynamics of Amino Acids. Biophysical Journal, 2017, 112, 457a.	0.2	0
40	Ultra-weak photon emission as a dynamic tool for monitoring oxidative stress metabolism. Scientific Reports, 2017, 7, 1229.	1.6	30
41	Resolving controversy of unusually high refractive index of a tubulin. Europhysics Letters, 2017, 117, 38003.	0.7	12
42	Vibrations of microtubules: Physics that has not met biology yet. Wave Motion, 2017, 72, 13-22.	1.0	22
43	Development of experimental platform for investigation of biological response of cells to weak low frequency electromagnetic fields. , 2017, , .		0
44	Deformation pattern in vibrating microtubule: Structural mechanics study based on an atomistic approach. Scientific Reports, 2017, 7, 4227.	1.6	22
45	Optomechanical proposal for monitoring microtubule mechanical vibrations. Physical Review E, 2017, 96, 012404.	0.8	8
46	Grounded coplanar waveguide-based 0.5â€“50 GHz sensor for dielectric spectroscopy. , 2017, , .		3
47	TRL Calibrated Coplanar Microwave Sensor for Characterization of Biomolecules. , 2017, , .		2
48	Poisson pre-processing of nonstationary photonic signals: Signals with equality between mean and variance. PLoS ONE, 2017, 12, e0188622.	1.1	6
49	Cellular electrodynamic activity. BIO Web of Conferences, 2016, 6, 01005.	0.1	0
50	Microwave absorption by nanoresonator vibrations tuned with surface modification. Europhysics Letters, 2016, 115, 44003.	0.7	4
51	Low frequency electromagnetic field effects on ultra-weak photon emission from yeast cells. , 2016, , .		8
52	Tracking biochemical changes correlated with ultra-weak photon emission using metabolomics. Journal of Photochemistry and Photobiology B: Biology, 2016, 163, 237-245.	1.7	16
53	Photocount statistics of ultra-weak photon emission from germinating mung bean. Journal of Photochemistry and Photobiology B: Biology, 2016, 162, 50-55.	1.7	13
54	Deformability of Microtubules: An Atomistic Computational Study. Biophysical Journal, 2016, 110, 131a.	0.2	0

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55	Radiofrequency and microwave interactions between biomolecular systems. Journal of Biological Physics, 2016, 42, 1-8.	0.7	18
56	Microtubule Electrodynamics Associated with Vibrational Normal Modes. Biophysical Journal, 2015, 108, 449a.	0.2	2
57	Biophotons, coherence and photocount statistics: A critical review. Journal of Luminescence, 2015, 164, 38-51.	1.5	29
58	Chemical modulation of the ultra-weak photon emission fromSaccharomyces cerevisiaeand differentiated HL-60 cells. , 2015, , .		2
59	Optical spectral analysis of ultra-weak photon emission from tissue culture and yeast cells. , 2015, , .		8
60	Spectral Perspective on the Electromagnetic Activity of Cells. Current Topics in Medicinal Chemistry, 2015, 15, 513-522.	1.0	9
61	Hydroxyl Radical Induced Ultra-Weak Photon Emission from Tyrosine Solutions. Communications - Scientific Letters of the University of Zilina, 2015, 17, 3-7.	0.3	1
62	Lunisolar tidal synchronism with biophoton emission during intercontinental wheat-seedling germination tests. Plant Signaling and Behavior, 2014, 9, e28671.	1.2	22
63	Multi-mode electro-mechanical vibrations of a microtubule:In silicodemonstration of electric pulse moving along a microtubule. Applied Physics Letters, 2014, 104, 243702.	1.5	27
64	Ultra-weak photon emission from biological samples: Definition, mechanisms, properties, detection and applications. Journal of Photochemistry and Photobiology B: Biology, 2014, 139, 2-10.	1.7	163
65	Two-channel measurement of the ultra-weak photon emission from a yeast culture during its growth. , 2014, , .		0
66	Electro-Acoustic Behavior of the Mitotic Spindle: A Semi-Classical Coarse-Grained Model. PLoS ONE, 2014, 9, e86501.	1.1	28
67	Cell-to-cell signaling through light: just a ghost of chance?. Cell Communication and Signaling, 2013, 11, 87.	2.7	46
68	Non-chemical and non-contact cell-to-cell communication: a short review. American Journal of Translational Research (discontinued), 2013, 5, 586-93.	0.0	29
69	Electrodynamic eigenmodes in cellular morphology. BioSystems, 2012, 109, 356-366.	0.9	17
70	On the Photonic Cellular Interaction and the Electric Activity of Neurons in the Human Brain. Journal of Physics: Conference Series, 2011, 329, 012006.	0.3	11
71	What is more important for radiated power from cells - size or geometry?. Journal of Physics: Conference Series, 2011, 329, 012014.	0.3	6
72	Disturbances of electrodynamic activity affect abortion in human. Journal of Physics: Conference Series, 2011, 329, 012030.	0.3	0

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73	Electromagnetic cellular interactions. Progress in Biophysics and Molecular Biology, 2011, 105, 223-246.	1.4	232
74	Cancer physics: diagnostics based on damped cellular elastoelectrical vibrations in microtubules. European Biophysics Journal, 2011, 40, 747-759.	1.2	63
75	High-frequency electric field and radiation characteristics of cellular microtubule network. Journal of Theoretical Biology, 2011, 286, 31-40.	0.8	77
76	Using multifractal analysis of ultra-weak photon emission from germinating wheat seedlings to differentiate between two grades of intoxication with potassium dichromate. Journal of Physics: Conference Series, 2011, 329, 012020.	0.3	8
77	Electric field generated by longitudinal axial microtubule vibration modes with high spatial resolution microtubule model. Journal of Physics: Conference Series, 2011, 329, 012013.	0.3	7
78	EMISSION OF MITOCHONDRIAL BIOPHOTONS AND THEIR EFFECT ON ELECTRICAL ACTIVITY OF MEMBRANE VIA MICROTUBULES. Journal of Integrative Neuroscience, 2011, 10, 65-88.	0.8	81
79	Technical aspects of measurement of cellular electromagnetic activity. European Biophysics Journal, 2010, 39, 1465-1470.	1.2	17
80	Electric field generated by axial longitudinal vibration modes of microtubule. BioSystems, 2010, 100, 122-131.	0.9	114
81	Electric oscillations generated by collective vibration modes of microtubule. Proceedings of SPIE, 2010, , .	0.8	2
82	Biological Cell as IR-optical Resonator. , 2010, , .		0
83	Electric field generated by higher vibration modes of microtubule. , 2010, , .		2
84	Electromagnetic-based nano-resolution microscopies for biological research. , 2010, , .		0
85	Measurement of Electrical Oscillations and Mechanical Vibrations of Yeast Cells Membrane Around 1â€‰kHz. Electromagnetic Biology and Medicine, 2009, 28, 223-232.	0.7	35
86	Feasibility Study of Superficial Hyperthermia Treatment Planning Using COMSOL Multiphysics. , 2008, , .		3
87	Ultra Low Frequency Yeast Cells Electric Activity. , 2008, , .		2
88	Measurement of Temperature Synchronized Yeast Cells kHz Electrical Oscillations. IFMBE Proceedings, 2008, , 610-613.	0.2	0
89	Spontaneous ultra-weak photon emission from human hands varies diurnally. Proceedings of SPIE, 2007, , .	0.8	9
90	Daily Variation of Photon Emission Intensity from the Human Hands. , 2007, , .		0

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91	Electrical Vibrations of Yeast Cell Membrane. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2007, 3, 1190-1194.	0.4	1