Konstantin Agladze

List of Publications by Year
in descending order

72 papers	2,624 citations	257450 24 h-index	189892 50 g-index
77 all docs	77 docs citations	77 times ranked	1607 citing authors

#	Article	IF	Citations
1	Status of INavin atrial cardiomyocytes after administration of cardioplegia. Clinical and Experimental Surgery, 2022, 10, 26-32.	0.1	1
2	Cyclophosphamide arrhythmogenicitytesting using human-induced pluripotent stem cell-derived cardiomyocytes. Scientific Reports, 2021, 11, 2336.	3.3	9
3	Diphenhydramine Arrhythmogenicity Testing Using Monolayers of Human iPSC-derived Cardiomyocytes. , 2021, , .		0
4	Formation of an electrical coupling between differentiating cardiomyocytes. Scientific Reports, 2020, 10, 7774.	3.3	13
5	Muscular Thin Films for Label-Free Mapping of Excitation Propagation in Cardiac Tissue. Annals of Biomedical Engineering, 2020, 48, 2425-2437.	2.5	4
6	The Use of iPSC-Derived Cardiomyocytes and Optical Mapping for Erythromycin Arrhythmogenicity Testing. Cardiovascular Toxicology, 2019, 19, 518-528.	2.7	21
7	Self-organization of conducting pathways explains electrical wave propagation in cardiac tissues with high fraction of non-conducting cells. PLoS Computational Biology, 2019, 15, e1006597.	3.2	20
8	Stilbene derivative as a photosensitive compound to control the excitability of neonatal rat cardiomyocytes. Bioscience Reports, 2019, 39, .	2.4	6
9	Arrhythmogenicity Test Based on a Human-Induced Pluripotent Stem Cell (iPSC)-Derived Cardiomyocyte Layer. Toxicological Sciences, 2019, 168, 70-77.	3.1	13
10	Cell technologies in the regenerative medicine of the heart: main problems and ways of development. AlÊ¹manah KliniÄeskoj Mediciny, 2019, 47, 623-629.	0.3	0
11	High resolution 3D microscopy study of cardiomyocytes on polymer scaffold nanofibers reveals formation of unusual sheathed structure. Acta Biomaterialia, 2018, 68, 214-222.	8.3	11
12	Cardiac Excitation Waves under Strong Hyperkalemia Condition. JETP Letters, 2018, 108, 548-552.	1.4	0
13	Effect of heptanol and ethanol on excitation wave propagation in a neonatal rat ventricular myocyte monolayer. Toxicology in Vitro, 2018, 51, 136-144.	2.4	5
14	The study of the functionality ofÂcardiomyocytes obtained from induced pluripotent stem cells for the modeling of cardiac arrhythmias based on long QT syndrome. Vavilovskii Zhurnal Genetiki I Selektsii, 2018, 22, 187-195.	1.1	3
15	Synchronization of excitable cardiac cultures of different origin. Biomaterials Science, 2017, 5, 1777-1785.	5.4	24
16	Virtual cardiac monolayers for electrical wave propagation. Scientific Reports, 2017, 7, 7887.	3.3	15
17	Biocontractile microfluidic channels for peristaltic pumping. Biomedical Microdevices, 2017, 19, 72.	2.8	8
18	Success of spiral wave unpinning from heterogeneity in a cardiac tissue depends on its boundary conditions. JETP Letters, 2017, 106, 608-612.	1.4	5

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19	Photocontrol of Voltage-Gated Ion Channel Activity by Azobenzene Trimethylammonium Bromide in Neonatal Rat Cardiomyocytes. PLoS ONE, 2016, 11, e0152018.	2.5	9
20	Spontaneous spiral wave breakup caused by pinning to the tissue defect. JETP Letters, 2016, 104, 635-638.	1.4	2
21	Formation of virtual isthmus: A new scenario of spiral wave death after a decrease in excitability. JETP Letters, 2015, 102, 688-692.	1.4	1
22	Excitation wave propagation in a patterned multidomain cardiac tissue. JETP Letters, 2015, 101, 772-775.	1.4	0
23	Functional Analysis of the Engineered Cardiac Tissue Grown on Recombinant Spidroin Fiber Meshes. PLoS ONE, 2015, 10, e0121155.	2.5	22
24	Conditions for Waveblock Due to Anisotropy in a Model of Human Ventricular Tissue. PLoS ONE, 2015, 10, e0141832.	2.5	6
25	Two models of anisotropic propagation of a cardiac excitation wave. JETP Letters, 2014, 100, 351-354.	1.4	3
26	Arrhythmogenic role of the border between two areas of cardiac cell alignment. Journal of Molecular and Cellular Cardiology, 2014, 76, 227-234.	1.9	10
27	Influence of patterned topographic features on the formation of cardiac cell clusters and their rhythmic activities. Biofabrication, 2013, 5, 035013.	7.1	3
28	Development of a reentrant arrhythmia model in human pluripotent stem cell-derived cardiac cell sheets. European Heart Journal, 2013, 34, 1147-1156.	2.2	72
29	Multi-electrode monitoring of guided excitation in patterned cardiomyocytes. Microelectronic Engineering, 2013, 111, 267-271.	2.4	16
30	Curvature-dependent excitation propagation in cultured cardiac tissue. JETP Letters, 2012, 94, 824-830.	1.4	13
31	Photo-Control of Excitation Waves in Cardiomyocyte Tissue Culture. Tissue Engineering - Part A, 2011, 17, 2703-2711.	3.1	13
32	Digital photocontrol of the network of live excitable cells. JETP Letters, 2011, 94, 477-480.	1.4	6
33	Electrospun nanofibers as a tool for architecture control in engineered cardiac tissue. Biomaterials, 2011, 32, 5615-5624.	11.4	153
34	Patterning and excitability control in cardiomyocyte tissue culture. Physica D: Nonlinear Phenomena, 2010, 239, 1560-1566.	2.8	10
35	Unpinning of a spiral wave anchored around a circular obstacle by an external wave train: Common aspects of a chemical reaction and cardiomyocyte tissue. Chaos, 2009, 19, 043114.	2.5	31
36	Liberation of a pinned spiral wave by a single stimulus in excitable media. Physical Review E, 2009, 79, 026218.	2.1	20

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37	Eliminating spiral waves pinned to an anatomical obstacle in cardiac myocytes by high-frequency stimuli. Physical Review E, 2008, 78, 066216.	2.1	65
38	Microfreight Delivered by Chemical Waves. Journal of Physical Chemistry C, 2008, 112, 3032-3035.	3.1	25
39	Interaction between spiral and paced waves in cardiac tissue. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H503-H513.	3.2	68
40	Wave Emission from Heterogeneities Opens a Way to Controlling Chaos in the Heart. Physical Review Letters, 2007, 99, 208101.	7.8	86
41	Survival versus collapse: Abrupt drop of excitability kills the traveling pulse, while gradual change results in adaptation. Physical Review E, 2007, 76, 016205.	2.1	17
42	Spatial Periodicity of Escherichia coli K-12 Biofilm Microstructure Initiates during a Reversible, Polar Attachment Phase of Development and Requires the Polysaccharide Adhesin PGA. Journal of Bacteriology, 2005, 187, 8237-8246.	2.2	113
43	Periodicity of Cell Attachment Patterns during Escherichia coli Biofilm Development. Journal of Bacteriology, 2003, 185, 5632-5638.	2.2	34
44	Traveling Fronts of Copper Deposition. Journal of the American Chemical Society, 2002, 124, 10292-10293.	13.7	5
45	The initiation of traveling pulses from self-organized oscillations in the ironâ€"nitric acid system. Physical Chemistry Chemical Physics, 2001, 3, 1326-1330.	2.8	10
46	Electrochemical Waves on Patterned Surfaces:â€‰ Propagation through Narrow Gaps and Channels. Journal of Physical Chemistry A, 2001, 105, 7356-7363.	2.5	16
47	Propagation of Chemical Waves at the Boundary of Excitable and Inhibitory Fields. Journal of Physical Chemistry A, 2000, 104, 6677-6680.	2.5	23
48	Waves and Vortices of Rust on the Surface of Corroding Steel. Journal of Physical Chemistry A, 2000, 104, 9816-9819.	2.5	47
49	Paradoxical wave acceleration in the sink-type boundary of an excitable medium. Doklady Biophysics: Proceedings of the Academy of Sciences of the USSR, Biophysics Section, 2000, 370-372, 13-7.	0.1	0
50	Tunneling chemical waves. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1998, 20, 103-111.	0.4	2
51	Excitable medium with leftâ€"right symmetry breaking. Physica A: Statistical Mechanics and Its Applications, 1998, 249, 47-52.	2.6	19
52	Size-Dependent Belousovâ˘'Zhabotinsky Oscillation in Small Beads. Journal of Physical Chemistry A, 1998, 102, 7649-7652.	2.5	46
53	Flower Patterns in a Growing Active Chemical Medium. Journal of Physical Chemistry A, 1997, 101, 2739-2742.	2.5	1
54	Finding the optimal path with the aid of chemical wave. Physica D: Nonlinear Phenomena, 1997, 106, 247-254.	2.8	86

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55	Light induced annihilation and shift of spiral waves. Chaos, 1996, 6, 328-333.	2.5	2
56	Chemical Diode. The Journal of Physical Chemistry, 1996, 100, 13895-13897.	2.9	112
57	Phase-shift as a basis of image processing in oscillating chemical medium. Physica D: Nonlinear Phenomena, 1995, 84, 238-245.	2.8	42
58	Elastic excitable medium. Physical Review E, 1994, 50, R667-R670.	2.1	51
59	Rotating Spiral Waves Created by Geometry. Science, 1994, 264, 1746-1748.	12.6	139
60	Highâ€frequency instability of wave fronts. Chaos, 1994, 4, 525-529.	2.5	6
61	Influence of electric field on rotating spiral waves in the Belousov-Zhabotinskii reaction. The Journal of Physical Chemistry, 1992, 96, 5239-5242.	2.9	97
62	Stationary Turing patterns versus time-dependent structures in the chlorite-iodide-malonic acid reaction. Physica A: Statistical Mechanics and Its Applications, 1992, 188, 1-16.	2.6	48
63	Autowave Propagation in a Belousov-Zhabotinsky Medium with Immobilized Catalyst and Stationary Flow of Reagents. Zeitschrift Fur Physikalische Chemie, 1991, 173, 79-85.	2.8	5
64	Critical conditions of chemical wave propagation in gel layers with an immobilized catalyst. Physica D: Nonlinear Phenomena, 1991, 50, 65-70.	2.8	21
65	Direct observation of vortex ring collapse in a chemically active medium. Physica D: Nonlinear Phenomena, 1991, 49, 1-4.	2.8	24
66	Three-dimensional vortex with a spiral filament in a chemically active medium. Physica D: Nonlinear Phenomena, 1989, 39, 38-42.	2.8	35
67	Image processing using light-sensitive chemical waves. Nature, 1989, 337, 244-247.	27.8	390
68	Nonstationary rotation of spiral waves: Three-dimensional effect. Physica D: Nonlinear Phenomena, 1988, 29, 409-415.	2.8	18
69	Chaos in the non-stirred Belousovâ€"Zhabotinsky reaction is induced by interaction of waves and stationary dissipative structures. Nature, 1984, 308, 834-835.	27.8	143
70	Interaction of rotating waves in an active chemical medium. Physica D: Nonlinear Phenomena, 1983, 8, 50-56.	2.8	123
71	Multi-armed vortices in an active chemical medium. Nature, 1982, 296, 424-426.	27.8	156
72	Investigation of the formation of cardiac tissue on substrates of varying degrees of anisotropy and rigidity. AlÊ¹manah KliniÄeskoj Mediciny, 0, 49, .	0.3	0