Andrew Adamatzky

List of Publications by Year
in descending order

386	6,688	76294	149623
papers	citations	40 h-index	56 g-index

411	411	411	2016
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	ON SIMULTANEOUS CONSTRUCTION OF VORONOI DIAGRAM AND DELAUNAY TRIANGULATION BY PHYSARUM POLYCEPHALUM. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2009, 19, 3109-3117.	0.7	114
2	DEVELOPING PROXIMITY GRAPHS BY PHYSARUM POLYCEPHALUM: DOES THE PLASMODIUM FOLLOW THE TOUSSAINT HIERARCHY?. Parallel Processing Letters, 2009, 19, 105-127.	0.4	101
3	Slime Mold Solves Maze in One Pass, Assisted by Gradient of Chemo-Attractants. IEEE Transactions on Nanobioscience, 2012, 11, 131-134.	2.2	92
4	PHYSARUM MACHINE: IMPLEMENTATION OF A KOLMOGOROV-USPENSKY MACHINE ON A BIOLOGICAL SUBSTRATE. Parallel Processing Letters, 2007, 17, 455-467.	0.4	91
5	Experimental logical gates in a reaction-diffusion medium: The XOR gate and beyond. Physical Review E, 2002, 66, 046112.	0.8	90
6	ROAD PLANNING WITH SLIME MOULD: IF PHYSARUM BUILT MOTORWAYS IT WOULD ROUTE M6/M74 THROUGH NEWCASTLE. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 3065-3084.	0.7	85
7	Collision-based computing in Belousovâ€“Zhabotinsky medium. Chaos, Solitons and Fractals, 2004, 21, 1259-1264.	2.5	84
8	Physarum machines: encapsulating reactionâ€“diffusion to compute spanning tree. Die Naturwissenschaften, 2007, 94, 975-980.	0.6	82
9	Reaction-Diffusion Navigation Robot Control: From Chemical to VLSI Analogic Processors. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2004, 51, 926-938.	0.1	80
10	Slime mold microfluidic logical gates. Materials Today, 2014, 17, 86-91.	8.3	73
11	Computation of the travelling salesman problem by a shrinking blob. Natural Computing, 2014, 13, 1-16.	1.8	73
12	Slime mould: The fundamental mechanisms of biological cognition. BioSystems, 2018, 165, 57-70.	0.9	67
13	On spiking behaviour of oyster fungi Pleurotus djamor. Scientific Reports, 2018, 8, 7873.	1.6	65
14	UNIVERSAL COMPUTATION WITH LIMITED RESOURCES: BELOUSOVâ€“ZHABOTINSKY AND PHYSARUM COMPUTERS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2008, 18, 2373-2389.	0.7	63
15	Towards slime mould chemical sensor: Mapping chemical inputs onto electrical potential dynamics of Physarum Polycephalum. Sensors and Actuators B: Chemical, 2014, 191, 844-853.	4.0	58
16	Slime mould tactile sensor. Sensors and Actuators B: Chemical, 2013, 188, 38-44.	4.0	57
17	Towards slime mould colour sensor: Recognition of colours by Physarum polycephalum. Organic Electronics, 2013, 14, 3355-3361.	1.4	57
18	Slime Mould Memristors. BioNanoScience, 2015, 5, 1-8.	1.5	56

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19	Chemical processor for computation of voronoi diagram. Advanced Materials for Optics and Electronics, 1996, 6, 191-196.	0.5	55
20	Journeys in non-classical computation I: A grand challenge for computing research. International Journal of Parallel, Emergent and Distributed Systems, 2005, 20, 5-19.	0.7	54
21	Approximating Mexican highways with slime mould. Natural Computing, 2011, 10, 1195-1214.	1.8	54
22	If BZ medium did spanning trees these would be the same trees as Physarum built. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 373, 952-956.	0.9	53
23	Experimental implementation of collision-based gates in Belousovâ€“Zhabotinsky medium. Chaos, Solitons and Fractals, 2005, 25, 535-544.	2.5	52
24	Drop-coated titanium dioxide memristors. Materials Chemistry and Physics, 2014, 143, 524-529.	2.0	51
25	Experimental reactionâ€“diffusion pre-processor for shape recognition. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 297, 344-352.	0.9	50
26	Phenomenology of glider collisions in cellular automaton Rule 54 and associated logical gates. Chaos, Solitons and Fractals, 2006, 28, 100-111.	2.5	49
27	Collision-free path planning in the Belousov-Zhabotinsky medium assisted by a cellular automaton. Die Naturwissenschaften, 2002, 89, 474-478.	0.6	48
28	THE FORMATION OF VORONOI DIAGRAMS IN CHEMICAL AND PHYSICAL SYSTEMS: EXPERIMENTAL FINDINGS AND THEORETICAL MODELS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 2187-2210.	0.7	48
29	Universal Dynamical Computation in Multidimensional Excitable Lattices. International Journal of Theoretical Physics, 1998, 37, 3069-3108.	0.5	47
30	Binary collisions between wave-fragments in a sub-excitable Belousovâ€“Zhabotinsky medium. Chaos, Solitons and Fractals, 2007, 34, 307-315.	2.5	47
31	Hot ice computer. Physics Letters, Section A: General, Atomic and Solid State Physics, 2009, 374, 264-271.	0.9	46
32	A brief history of liquid computers. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180372.	1.8	46
33	Three-valued logic gates in reactionâ€“diffusion excitable media. Chaos, Solitons and Fractals, 2005, 24, 107-114.	2.5	44
34	Evaporation, Lifetime, and Robustness Studies of Liquid Marbles for Collision-Based Computing. Langmuir, 2018, 34, 2573-2580.	1.6	44
35	ORGANIC MEMRISTOR DEVICES FOR LOGIC ELEMENTS WITH MEMORY. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250283.	0.7	43
36	Experimental implementation of mobile robot taxis with onboard Belousovâ€“Zhabotinsky chemical medium. Materials Science and Engineering C, 2004, 24, 541-548.	3.8	42

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37	Bioevaluation of World Transport Networks. , 2012, , .		42
38	Experimental Reactionâ€“Diffusion Chemical Processors for Robot Path Planning. Journal of Intelligent and Robotic Systems: Theory and Applications, 2003, 37, 233-249.	2.0	41
39	Glider-based computing in reaction-diffusion hexagonal cellular automata. Chaos, Solitons and Fractals, 2006, 27, 287-295.	2.5	41
40	Logical and arithmetic circuits in Belousov-Zhabotinsky encapsulated disks. Physical Review E, 2011, 84, 056110.	0.8	41
41	Reactive fungal wearable. BioSystems, 2021, 199, 104304.	0.9	41
42	Towards Physarum Robots: Computing and Manipulating on Water Surface. Journal of Bionic Engineering, 2008, 5, 348-357.	2.7	40
43	ON ELECTRICAL CORRELATES OF PHYSARUM POLYCEPHALUM SPATIAL ACTIVITY: CAN WE SEE PHYSARUM MACHINE IN THE DARK?. Biophysical Reviews and Letters, 2011, 06, 29-57.	0.9	40
44	Implementation of glider guns in the light-sensitive Belousov-Zhabotinsky medium. Physical Review E, 2009, 79, 026114.	0.8	39
45	Experimental validation of binary collisions between wave fragments in the photosensitive Belousovâ€“Zhabotinsky reaction. Chaos, Solitons and Fractals, 2009, 41, 1605-1615.	2.5	39
46	An intelligent physarum solver for supply chain network design under profit maximization and oligopolistic competition. International Journal of Production Research, 2017, 55, 244-263.	4.9	39
47	Reactionâ€“diffusion path planning in a hybrid chemical and cellular-automaton processor. Chaos, Solitons and Fractals, 2003, 16, 727-736.	2.5	37
48	On some limitations of reactionâ€“diffusion chemical computers in relation to Voronoi diagram and its inversion. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 309, 397-406.	0.9	37
49	Assessing the chemotaxis behavior ofPhysarum polycephalumto a range of simple volatile organic chemicals. Communicative and Integrative Biology, 2013, 6, e25030.	0.6	37
50	Towards Arithmetic Circuits in Subâ€Excitable Chemical Media. Israel Journal of Chemistry, 2011, 51, 56-66.	1.0	36
51	Rebuilding Iberian motorways with slime mould. BioSystems, 2011, 105, 89-100.	0.9	36
52	Information coding with frequency of oscillations in Belousov-Zhabotinsky encapsulated disks. Physical Review E, 2014, 89, 042910.	0.8	36
53	On dynamically non-trivial three-valued logics: oscillatory and bifurcatory species. Chaos, Solitons and Fractals, 2003, 18, 917-936.	2.5	35
54	Growing spanning trees in plasmodium machines. Kybernetes, 2008, 37, 258-264.	1.2	35

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55	Liquid marble interaction gate for collision-based computing. Materials Today, 2017, 20, 561-568.	8.3	35
56	Slime mould logic gates based on frequency changes of electrical potential oscillation. BioSystems, 2014, 124, 21-25.	0.9	34
57	The effect of changing electrode metal on solution-processed flexible titanium dioxide memristors. Materials Chemistry and Physics, 2015, 162, 20-30.	2.0	34
58	Towards fungal computer. Interface Focus, 2018, 8, 20180029.	1.5	34
59	Chemical Processor for Computation of Skeleton of Planar Shape. Advanced Materials for Optics and Electronics, 1997, 7, 135-139.	0.5	33
60	Physarum wires: Self-growing self-repairing smart wires made from slime mould. Biomedical Engineering Letters, 2013, 3, 232-241.	2.1	33
61	On Boolean gates in fungal colony. BioSystems, 2020, 193-194, 104138.	0.9	33
62	Towards Physarum binary adders. BioSystems, 2010, 101, 51-58.	0.9	32
63	Phenomenology of excitation in 2-D cellular automata and swarm systems. Chaos, Solitons and Fractals, 1998, 9, 1233-1265.	2.5	31
64	PHENOMENOLOGY OF REACTIONâ€“DIFFUSION BINARY-STATE CELLULAR AUTOMATA. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2006, 16, 2985-3005.	0.7	30
65	Computational modalities of Belousovâ€“Zhabotinsky encapsulated vesicles. Nano Communication Networks, 2011, 2, 50-61.	1.6	30
66	Rapid Physarum Algorithm for shortest path problem. Applied Soft Computing Journal, 2014, 23, 19-26.	4.1	30
67	Actin quantum automata: Communication and computation in molecular networks. Nano Communication Networks, 2015, 6, 15-27.	1.6	30
68	Dynamic control and information processing in the Belousovâ€“Zhabotinsky reaction using a coevolutionary algorithm. Journal of Chemical Physics, 2008, 129, 184708.	1.2	29
69	On architectures of circuits implemented in simulated Belousovâ€“Zhabotinsky droplets. BioSystems, 2012, 109, 72-77.	0.9	29
70	Boolean gates on actin filaments. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 88-97.	0.9	29
71	Language of fungi derived from their electrical spiking activity. Royal Society Open Science, 2022, 9, 211926.	1.1	29
72	Routing Physarum with repellents. European Physical Journal E, 2010, 31, 403-410.	0.7	28

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73	Observation, Characterization and Modeling of Memristor Current Spikes. Applied Mathematics and Information Sciences, 2013, 7, 1395-1403.	0.7	27
74	ON SPIRAL GLIDER-GUNS IN HEXAGONAL CELLULAR AUTOMATA: ACTIVATOR-INHIBITOR PARADIGM. International Journal of Modern Physics C, 2006, 17, 1009-1026.	0.8	26
75	Time-dependent wave selection for information processing in excitable media. Physical Review E, 2012, 85, 066129.	0.8	26
76	COMPLEX DYNAMICS OF ELEMENTARY CELLULAR AUTOMATA EMERGING FROM CHAOTIC RULES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1250023.	0.7	26
77	Electrical activity of fungi: Spikes detection and complexity analysis. BioSystems, 2021, 203, 104373.	0.9	26
78	ON POLYMORPHIC LOGICAL GATES IN SUBEXCITABLE CHEMICAL MEDIUM. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2011, 21, 1977-1986.	0.7	25
79	Slime mould electronic oscillators. Microelectronic Engineering, 2014, 124, 58-65.	1.1	25
80	Transfer function of protoplasmic tubes of Physarum polycephalum. BioSystems, 2015, 128, 48-51.	0.9	25
81	A Physarum-inspired approach to supply chain network design. Science China Information Sciences, 2016, 59, 1.	2.7	25
82	Programmable reconfiguration of Physarum machines. Natural Computing, 2010, 9, 219-237.	1.8	24
83	On computing in fine-grained compartmentalised Belousovâ€“Zhabotinsky medium. Chaos, Solitons and Fractals, 2011, 44, 779-790.	2.5	24
84	CELLULAR AUTOMATON SUPERCOLLIDERS. International Journal of Modern Physics C, 2011, 22, 419-439.	0.8	24
85	Slime mould computes planar shapes. International Journal of Bio-Inspired Computation, 2012, 4, 149.	0.6	24
86	Slime mould evaluation of Australian motorways. International Journal of Parallel, Emergent and Distributed Systems, 2012, 27, 275-295.	0.7	24
87	Are motorways rational from slime mould's point of view?. International Journal of Parallel, Emergent and Distributed Systems, 2013, 28, 230-248.	0.7	24
88	Tactile Bristle Sensors Made With Slime Mold. IEEE Sensors Journal, 2014, 14, 324-332.	2.4	24
89	Evolving Spiking Networks with Variable Resistive Memories. Evolutionary Computation, 2014, 22, 79-103.	2.3	24
90	Slime mould foraging behaviour as optically coupled logical operations. International Journal of General Systems, 2015, 44, 305-313.	1.2	24

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91	Manipulating substances with Physarum polycephalum. Materials Science and Engineering C, 2010, 30, 1211-1220.	3.8	23
92	Boolean Logic Gates from a Single Memristor via Low-Level Sequential Logic. Lecture Notes in Computer Science, 2013, , 79-89.	1.0	23
93	A Biologically Inspired Optimization Algorithm for Solving Fuzzy Shortest Path Problems with Mixed Fuzzy Arc Lengths. Journal of Optimization Theory and Applications, 2014, 163, 1049-1056.	0.8	23
94	A Biologically Inspired Network Design Model. Scientific Reports, 2015, 5, 10794.	1.6	23
95	Belousovâ€“Zhabotinsky reaction in liquid marbles. JPhys Materials, 2019, 2, 015005.	1.8	23
96	Sounds synthesis with slime mould of Physarum Polycephalum. Journal of Bionic Engineering, 2011, 8, 107-113.	2.7	22
97	Physarum in silicon: the Greek motorways study. Natural Computing, 2016, 15, 279-295.	1.8	22
98	Liquid Marble Actuator for Microfluidic Logic Systems. Scientific Reports, 2018, 8, 14153.	1.6	22
99	Towards proteinoid computers. Hypothesis paper. BioSystems, 2021, 208, 104480.	0.9	22
100	Complex Dynamics Emerging in Rule 30 with Majority Memory. Complex Systems, 2009, 18, 345-366.	0.9	22
101	Brazilian highways from slime mold's point of view. Kybernetes, 2011, 40, 1373-1394.	1.2	21
102	Sensory fusion in Physarum polycephalum and implementing multi-sensory functional computation. BioSystems, 2014, 119, 45-52.	0.9	21
103	On the role of the plasmodial cytoskeleton in facilitating intelligent behavior in slime mold Physarum polycephalum. Communicative and Integrative Biology, 2015, 8, e1059007.	0.6	21
104	Toward Hybrid Nanostructure-Slime Mould Devices. Nano LIFE, 2015, 05, 1450007.	0.6	21
105	Towards an evolvable cancer treatment simulator. BioSystems, 2019, 182, 1-7.	0.9	21
106	Towards reactionâ€“diffusion computing devices based on minority-carrier transport in semiconductors. Chaos, Solitons and Fractals, 2004, 20, 863-876.	2.5	20
107	Bio-Imitation of Mexican Migration Routes to the USA with Slime Mould on 3D Terrains. Journal of Bionic Engineering, 2013, 10, 242-250.	2.7	20
108	On creativity of slime mould. International Journal of General Systems, 2013, 42, 441-457.	1.2	20

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109	Slime mould processors, logic gates and sensors. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20140216.	1.6	20
110	The double-slit experiment withPhysarum polycephalumandp-adic valued probabilities and fuzziness. International Journal of General Systems, 2015, 44, 392-408.	1.2	20
111	Towards a Physarum learning chip. Scientific Reports, 2016, 6, 19948.	1.6	20
112	Trans-Canada Slimeways. International Journal of Natural Computing Research, 2011, 2, 31-46.	0.5	20
113	SILICON IMPLEMENTATION OF A CHEMICAL REACTIONâ€“DIFFUSION PROCESSOR FOR COMPUTATION OF VORONOI DIAGRAM. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 3307-3320.	0.7	19
114	Towards a slime Mould-FPGA interface. Biomedical Engineering Letters, 2015, 5, 51-57.	2.1	19
115	Thermal switch of oscillation frequency in Belousovâ€“Zhabotinsky liquid marbles. Royal Society Open Science, 2019, 6, 190078.	1.1	19
116	Mem-fractive properties of mushrooms. Bioinspiration and Biomimetics, 2021, 16, 066026.	1.5	19
117	BIO-DEVELOPMENT OF MOTORWAY NETWORK IN THE NETHERLANDS: A SLIME MOULD APPROACH. International Journal of Modeling, Simulation, and Scientific Computing, 2013, 16, 1250034.	0.9	18
118	Material approximation of data smoothing and spline curves inspired by slime mould. Bioinspiration and Biomimetics, 2014, 9, 036016.	1.5	18
119	Emergent spiking in non-ideal memristor networks. Microelectronics Journal, 2014, 45, 1401-1415.	1.1	18
120	Actin Automata: Phenomenology and Localizations. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2015, 25, 1550030.	0.7	18
121	Cellular Automaton Belousovâ€“Zhabotinsky Model for Binary Full Adder. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750089.	0.7	18
122	Liquid metal droplet solves maze. Soft Matter, 2020, 16, 1455-1462.	1.2	18
123	Living mycelium composites discern weights via patterns of electrical activity. Journal of Bioresources and Bioproducts, 2022, 7, 26-32.	11.8	18
124	On the Computing Potential of Intracellular Vesicles. PLoS ONE, 2015, 10, e0139617.	1.1	17
125	Robust Soldier Crab Ball Gate. Complex Systems, 2011, 20, 93-104.	0.9	17
126	Genetic approaches to search for computing patterns in cellular automata. IEEE Computational Intelligence Magazine, 2009, 4, 20-28.	3.4	16

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127	From reaction-diffusion to Physarum computing. Natural Computing, 2009, 8, 431-447.	1.8	16
128	On the Internalisation, Intraplasmodial Carriage and Excretion of Metallic Nanoparticles in the Slime Mould, Physarum Polycephalum. International Journal of Nanotechnology and Molecular Computation, 2011, 3, 1-14.	0.3	16
129	DESIGNING COMPLEX DYNAMICS IN CELLULAR AUTOMATA WITH MEMORY. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2013, 23, 1330035.	0.7	16
130	Slime mould imitates transport networks in China. International Journal of Intelligent Computing and Cybernetics, 2013, 6, 232-251.	1.6	16
131	Physarum solver: a bio-inspired method for sustainable supply chain network design problem. Annals of Operations Research, 2017, 254, 533-552.	2.6	16
132	Towards experimental P-systems using multivesicular liposomes. Journal of Membrane Computing, 2019, 1, 20-28.	1.0	16
133	Collision-based implementation of a two-bit adder in excitable cellular automaton. Chaos, Solitons and Fractals, 2009, 41, 1191-1200.	2.5	15
134	Emergence of self-organized amoeboid movement in a multi-agent approximation of Physarum polycephalum. Bioinspiration and Biomimetics, 2012, 7, 016009.	1.5	15
135	A bio-inspired algorithm for identification of critical components in the transportation networks. Applied Mathematics and Computation, 2014, 248, 18-27.	1.4	15
136	Simple Collision-Based Chemical Logic Gates with Adaptive Computing. International Journal of Nanotechnology and Molecular Computation, 2009, 1, 1-16.	0.3	14
137	Toward semantical model of reactionâ€diffusion computing. Kybernetes, 2009, 38, 1518-1531.	1.2	14
138	MEMRISTIVE EXCITABLE CELLULAR AUTOMATA. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2011, 21, 3083-3102.	0.7	14
139	Slime mould imitates development of Roman roads in the Balkans. Journal of Archaeological Science: Reports, 2015, 2, 264-281.	0.2	14
140	Logical Gates Implemented by Solitons at the Junctions Between One-Dimensional Lattices. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2016, 26, 1650107.	0.7	14
141	Physarum machines imitating a Roman road network: the 3D approach. Scientific Reports, 2017, 7, 7010.	1.6	14
142	East-West paths to unconventional computing. Progress in Biophysics and Molecular Biology, 2017, 131, 469-493.	1.4	14
143	Mapping outcomes of liquid marble collisions. Soft Matter, 2019, 15, 3541-3551.	1.2	14
144	Tactile sensing and computing on a random network of conducting fluid channels. Flexible and Printed Electronics, 2020, 5, 025006.	1.5	14

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145	Cellular automata implementation of Oregonator simulating light-sensitive Belousovâ€“Zhabotinsky medium. Nonlinear Dynamics, 2021, 104, 4103-4115.	2.7	14
146	Fungal electronics. BioSystems, 2022, 212, 104588.	0.9	14
147	COLLISION-BASED COMPUTING IN BIOPOLYMERS AND THEIR AUTOMATA MODELS. International Journal of Modern Physics C, 2000, 11, 1321-1346.	0.8	13
148	Towards Unconventional Computing through Simulated Evolution: Control of Nonlinear Media by a Learning Classifier System. Artificial Life, 2008, 14, 203-222.	1.0	13
149	On generative morphological diversity of elementary cellular automata. Kybernetes, 2010, 39, 72-82.	1.2	13
150	Topics in Reaction-Diffusion Computers. Journal of Computational and Theoretical Nanoscience, 2011, 8, 295-303.	0.4	13
151	Towards plant wires. BioSystems, 2014, 122, 1-6.	0.9	13
152	Plant hairy root cultures as plasmodium modulators of the slime mold emergent computing substrate Physarum polycephalum. Frontiers in Microbiology, 2015, 6, 720.	1.5	13
153	A Would-Be Nervous System Made from a Slime Mold. Artificial Life, 2015, 21, 73-91.	1.0	13
154	Particle sorting by Paramecium cilia arrays. BioSystems, 2017, 156-157, 46-52.	0.9	13
155	On plant roots logical gates. BioSystems, 2017, 156-157, 40-45.	0.9	13
156	Cellular non-linear network model of microbial fuel cell. BioSystems, 2017, 156-157, 53-62.	0.9	13
157	Contactless sensing of liquid marbles for detection, characterisation & computing. Lab on A Chip, 2020, 20, 136-146.	3.1	13
158	Towards fungal sensing skin. Fungal Biology and Biotechnology, 2021, 8, 6.	2.5	13
159	Discovering Boolean Gates in Slime Mould. Emergence, Complexity and Computation, 2018, , 323-337.	0.2	13
160	Computers from Plants We Never Made: Speculations. Emergence, Complexity and Computation, 2018, , 357-387.	0.2	13
161	Three-valued logic gates in reactionâ€“diffusion excitable media. Chaos, Solitons and Fractals, 2005, 24, 107-114.	2.5	13
162	Towards implementation of cellular automata in Microbial Fuel Cells. PLoS ONE, 2017, 12, e0177528.	1.1	13

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163	Reactionâ€diffusion and antâ€based load balancing of communication networks. Kybernetes, 2002, 31, 667-681.	1.2	12
164	Physarum attraction: Why slime mold behaves as cats do?. Communicative and Integrative Biology, 2012, 5, 297-299.	0.6	12
165	Quantitative transformation for implementation of adder circuits in physical systems. BioSystems, 2015, 134, 16-23.	0.9	12
166	Plant leaf computing. BioSystems, 2019, 182, 59-64.	0.9	12
167	Stimulating Fungi Pleurotus ostreatus with Hydrocortisone. ACS Biomaterials Science and Engineering, 2021, 7, 3718-3726.	2.6	12
168	Routing Physarum with Electrical Flow/Current. International Journal of Nanotechnology and Molecular Computation, 2011, 3, 56-70.	0.3	12
169	How cellular automaton plays Minesweeper. Applied Mathematics and Computation, 1997, 85, 127-137.	1.4	11
170	Phototaxis of mobile excitable lattices. Chaos, Solitons and Fractals, 2002, 13, 171-184.	2.5	11
171	Affectons: automata models of emotional interactions. Applied Mathematics and Computation, 2003, 146, 579-594.	1.4	11
172	ON PATTERNS IN AFFECTIVE MEDIA. International Journal of Modern Physics C, 2003, 14, 673-687.	0.8	11
173	On attraction of slime mould Physarum polycephalum to plants with sedative properties. Nature Precedings, 2011, , .	0.1	11
174	Collision-Based Computing. , 2012, , 1949-1978.		11
175	Slimeware: Engineering Devices with Slime Mold. Artificial Life, 2013, 19, 317-330.	1.0	11
176	A Bio-Inspired Algorithm for Route Selection in Wireless Sensor Networks. IEEE Communications Letters, 2014, 18, 2019-2022.	2.5	11
177	On chirality of slime mould. BioSystems, 2016, 140, 23-27.	0.9	11
178	Thirty Seven Things to Do with Live Slime Mould. Emergence, Complexity and Computation, 2017, , 709-738.	0.2	11
179	Computing on actin bundles network. Scientific Reports, 2019, 9, 15887.	1.6	11
180	Acetobacter Biofilm: Electronic Characterization and Reactive Transduction of Pressure. ACS Biomaterials Science and Engineering, 2021, 7, 1651-1662.	2.6	11

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181	On Electrical Spiking of Ganoderma resinaceum. Biophysical Reviews and Letters, 2021, 16, 133-141.	0.9	11
182	Manipulating objects with chemical waves: Open loop case of experimental Belousovâ€“Zhabotinsky medium coupled with simulated actuator array. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 350, 201-209.	0.9	10
183	Vesicle computers: Approximating a Voronoi diagram using Voronoi automata. Chaos, Solitons and Fractals, 2011, 44, 480-489.	2.5	10
184	THE WORLD'S COLONIZATION AND TRADE ROUTES FORMATION AS IMITATED BY SLIME MOULD. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2012, 22, 1230028.	0.7	10
185	Classifying elementary cellular automata using compressibility, diversity and sensitivity measures. International Journal of Modern Physics C, 2014, 25, 1350098.	0.8	10
186	Fredkin and Toffoli Gates Implemented in Oregonator Model of Belousovâ€“Zhabotinsky Medium. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2017, 27, 1750041.	0.7	10
187	Logical gates in actin monomer. Scientific Reports, 2017, 7, 11755.	1.6	10
188	Toxicity and Applications of Internalised Magnetite Nanoparticles Within Live Paramecium caudatum Cells. BioNanoScience, 2018, 8, 90-94.	1.5	10
189	Light sensitive Belousovâ€“Zhabotinsky medium accommodates multiple logic gates. BioSystems, 2021, 206, 104447.	0.9	10
190	Living wearables: Bacterial reactive glove. BioSystems, 2022, 218, 104691.	0.9	10
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