Lars Folke Olsen

List of Publications by Year
in descending order

82 papers	2,223 citations	218677 26 h-index	243625 44 g-index
85 all docs	85 docs citations	85 times ranked	1333 citing authors

#	Article	IF	Citations
1	Chaos in an enzyme reaction. Nature, 1977, 267, 177-178.	27.8	215
2	Chaos in biological systems. Quarterly Reviews of Biophysics, 1985, 18, 165-225.	5.7	188
3	Time-resolved Measurements of Intracellular ATP in the Yeast Saccharomyces cerevisiae using a New Type of Nanobiosensor. Journal of Biological Chemistry, 2010, 285, 37579-37588.	3.4	97
4	Oscillatory kinetics of the peroxidase-oxidase reaction in an open system. Experimental and theoretical studies. Biochimica Et Biophysica Acta - Biomembranes, 1978, 523, 321-334.	2.6	76
5	Regulation of Glycolytic Oscillations by Mitochondrial and Plasma Membrane H+-ATPases. Biophysical Journal, 2009, 96, 3850-3861.	0.5	74
6	An enzyme reaction with a strange attractor. Physics Letters, Section A: General, Atomic and Solid State Physics, 1983, 94, 454-457.	2.1	71
7	Period-doubling bifurcations and chaos in an enzyme reaction. The Journal of Physical Chemistry, 1992, 96, 5678-5680.	2.9	68
8	A Model of the Oscillatory Metabolism of Activated Neutrophils. Biophysical Journal, 2003, 84, 69-81.	0.5	67
9	BISTABILITY, OSCILLATION, AND CHAOS IN AN ENZYME REACTION. Annals of the New York Academy of Sciences, 1979, 316, 623-637.	3.8	66
10	Mixed-mode oscillations and homoclinic chaos in an enzyme reaction. Journal of the Chemical Society, Faraday Transactions, 1996, 92, 2857.	1.7	63
11	Routes to Chaos in the Peroxidaseâ˘Oxidase Reaction:Â Period-Doubling and Period-Adding. Journal of Physical Chemistry B, 1997, 101, 5075-5083.	2.6	52
12	Mitochondria regulate the amplitude of simple and complex calcium oscillations. Biophysical Chemistry, 2001, 94, 59-74.	2.8	47
13	The Role of Naturally Occurring Phenols in Inducing Oscillations in the Peroxidaseâ˘Oxidase Reaction. Biochemistry, 1998, 37, 2458-2469.	2.5	45
14	Single cell studies and simulation of cellâ€"cell interactions using oscillating glycolysis in yeast cells. Biophysical Chemistry, 2007, 125, 275-280.	2.8	41
15	On the encoding and decoding of calcium signals in hepatocytes. Biophysical Chemistry, 2004, 107, 83-99.	2.8	40
16	Oscillations in peroxidase-catalyzed reactions and their potential function in vivo. Biophysical Chemistry, 1998, 72, 63-72.	2.8	36
17	The Yin and Yang of redox regulation. Redox Report, 2013, 18, 245-252.	4.5	35
18	Sustained glycolytic oscillations Ã¢Â€Â" no need for cyanide. FEMS Microbiology Letters, 2004, 236, 261-266.	1.8	34

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19	Experimental evidence for the coexistence of oscillatory and steady states in the peroxidase-oxidase reaction. Journal of the American Chemical Society, 1990, 112, 6652-6656.	13.7	32
20	Tight Coupling of Metabolic Oscillations and Intracellular Water Dynamics in Saccharomyces cerevisiae. PLoS ONE, 2015, 10, e0117308.	2.5	32
21	Mechanism of protection of peroxidase activity by oscillatory dynamics. FEBS Journal, 2003, 270, 2796-2804.	0.2	31
22	Oscillatory dynamics protect enzymes and possibly cells against toxic substances. Faraday Discussions, 2002, 120, 215-227.	3.2	29
23	Sustained glycolytic oscillations ? no need for cyanide. FEMS Microbiology Letters, 2004, 236, 261-266.	1.8	29
24	A flash spectroscopic study of the kinetics of the electrochromic shift, proton release and the redox behaviour of cytochromes f and b -563 during cyclic electron flow. FEBS Letters, 1980, 118, 11-17.	2.8	28
25	On-line measurements of oscillating mitochondrial membrane potential in glucose-fermentingSaccharomyces cerevisiae. Yeast, 2007, 24, 731-739.	1.7	28
26	Probing Glycolytic and Membrane Potential Oscillations in Saccharomyces cerevisiae. Biochemistry, 2008, 47, 7477-7484.	2.5	28
27	The cell division cycle: a physiologically plausible dynamic model can exhibit chaotic solutions. BioSystems, 1992, 27, 17-24.	2.0	27
28	Oscillations in the peroxidase-oxidase reaction: a comparison of different peroxidases. Biochimica Et Biophysica Acta - General Subjects, 1996, 1289, 397-403.	2.4	26
29	Measurements of intracellularATP provide new insight into the regulation of glycolysis in the yeast Saccharomyces cerevisiae. Integrative Biology (United Kingdom), 2012, 4, 99-107.	1.3	25
30	Sphingomyelinase D Activity in Model Membranes: Structural Effects of in situ Generation of Ceramide-1-Phosphate. PLoS ONE, 2012, 7, e36003.	2.5	25
31	Oscillations and Complex Dynamics in the Peroxidaseâˆ'Oxidase Reaction Induced by Naturally Occurring Aromatic Substrates. Journal of the American Chemical Society, 1997, 119, 2084-2087.	13.7	24
32	Quasiperiodicity in a detailed model of the peroxidaseâ€"oxidase reaction. Journal of Chemical Physics, 1996, 105, 10849-10859.	3.0	23
33	Effect of Magnetic Fields on an Oscillating Enzyme Reaction. Journal of the American Chemical Society, 1999, 121, 6351-6354.	13.7	22
34	Routes to Chaos in the Peroxidaseâˆ'Oxidase Reaction. 2. The Fat Torus Scenario. Journal of Physical Chemistry B, 1998, 102, 632-640.	2.6	21
35	Further studies of the effect of magnetic fields on the oscillating peroxidaseâ€"oxidase reaction. Physical Chemistry Chemical Physics, 2000, 2, 3443-3446.	2.8	21
36	Perturbations of Simple Oscillations and Complex Dynamics in the Peroxidaseâˆ'Oxidase Reaction Using Magnetic Fields. Journal of Physical Chemistry B, 2000, 104, 140-146.	2.6	21

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37	Transient kinetics of the reaction between cytochrome c-552 or plastocyanin and P-700 in subchloroplast particles. Biochimica Et Biophysica Acta - Bioenergetics, 1982, 679, 436-443.	1.0	20
38	The dynamics of intracellular water constrains glycolytic oscillations in Saccharomyces cerevisiae. Scientific Reports, 2017, 7, 16250.	3.3	20
39	Nonlinear Dynamics of the Peroxidaseâ^'Oxidase Reaction. II. Compatibility of an Extended Model with Previously Reported Model-Data Correspondences. Journal of Physical Chemistry B, 2001, 105, 5331-5340.	2.6	19
40	Prediction Analysis for Measles Epidemics. Japanese Journal of Applied Physics, 2003, 42, 7611-7620.	1.5	19
41	Is a constant low-entropy process at the root of glycolytic oscillations?. Journal of Biological Physics, 2018, 44, 419-431.	1.5	19
42	Delivery of proteins encapsulated in chitosan-tripolyphosphate nanoparticles to human skin melanoma cells. Colloids and Surfaces B: Biointerfaces, 2019, 174, 216-223.	5.0	19
43	On the role of methylene blue in the oscillating peroxidaseâ€"oxidase reaction. Physical Chemistry Chemical Physics, 2000, 2, 1685-1692.	2.8	18
44	Melatonin Activates the Peroxidaseâ€"Oxidase Reaction and Promotes Oscillations. Biochemical and Biophysical Research Communications, 2001, 284, 1071-1076.	2.1	18
45	An experimental study of the regulation of glycolytic oscillations in yeast. FEBS Journal, 2013, 280, 6033-6044.	4.7	18
46	CHAOS IN BIOCHEMICAL SYSTEMS: THE PEROXIDASE REACTION AS A CASE STUDY. , 1993, , 175-224.		17
47	A synthetic RNA-based biosensor for fructose-1,6-bisphosphate that reports glycolytic flux. Cell Chemical Biology, 2021, 28, 1554-1568.e8.	5.2	17
48	Flash-induced redox changes of P700 and plastocyanin in chloroplasts suspended in fluid media at sub-zero temperatures. FEBS Letters, 1980, 122, 13-16.	2.8	16
49	Transient kinetics of the electron transfer between P-700, plastocyanin and cytochrome f in chloroplasts suspended in fluid media at sub-zero temperatures. Biochimica Et Biophysica Acta - Bioenergetics, 1982, 682, 482-490.	1.0	16
50	Effect of macromolecular crowding on the kinetics of glycolytic enzymes and the behaviour of glycolysis in yeast. Integrative Biology (United Kingdom), 2018, 10, 587-597.	1.3	16
51	Nonlinear analyses of periodic and chaotic time series from the peroxidase-oxidase reaction. The Journal of Physical Chemistry, 1993, 97, 8431-8441.	2.9	15
52	Nonlinear Dynamics of the Peroxidaseâ^'Oxidase Reaction:Â I. Bistability and Bursting Oscillations at Low Enzyme Concentrations. Journal of Physical Chemistry B, 2001, 105, 310-321.	2.6	15
53	Coupled Response of Membrane Hydration with Oscillating Metabolism in Live Cells: An Alternative Way to Modulate Structural Aspects of Biological Membranes?. Biomolecules, 2019, 9, 687.	4.0	12
54	Complexity of a peroxidaseâ€"oxidase reaction model. Physical Chemistry Chemical Physics, 2021, 23, 1943-1955.	2.8	12

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55	Chaos in the peroxidaseâ€“oxidase oscillator. Chaos, 2021, 31, 013119.	2.5	12
56	Some elements for a history of the dynamical systems theory. Chaos, 2021, 31, 053110.	2.5	12
57	Secondary quasiperiodicity in the peroxidaseâ€“oxidase reaction. Physical Chemistry Chemical Physics, 2002, 4, 1292-1298.	2.8	10
58	Oscillations in glycolysis in Saccharomyces cerevisiae: The role of autocatalysis and intracellular ATPase activity. Biophysical Chemistry, 2012, 165-166, 39-47.	2.8	10
59	Glycolytic oscillations and intracellular K+ concentration are strongly coupled in the yeast Saccharomyces cerevisiae. Archives of Biochemistry and Biophysics, 2020, 681, 108257.	3.0	10
60	Studies of the Chaotic Behaviour in the Peroxidase-Oxidase Reaction. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1979, 34, 1544-1546.	1.5	8
61	Mechanism of melatonin-induced oscillations in the peroxidaseâ€“oxidase reaction. Archives of Biochemistry and Biophysics, 2003, 410, 287-295.	3.0	7
62	Human myeloperoxidase catalyzes an oscillating peroxidaseâ€“oxidase reaction. Archives of Biochemistry and Biophysics, 2004, 431, 55-62.	3.0	7
63	Selection of Aptamers for Metabolite Sensing and Construction of Optical Nanosensors. Methods in Molecular Biology, 2016, 1380, 3-19.	0.9	7
64	The effect of intrathylakoid pH* on the rate of chloroplast electron transport reactions at subzero temperatures. FEBS Letters, 1979, 103, 250-252.	2.8	6
65	On the mechanism of oscillations in neutrophils. Biophysical Chemistry, 2010, 148, 82-92.	2.8	6
66	Effects of Periodic and Stochastic Perturbations on Oscillations and Chaos in a Model of the Peroxidase-Oxidase Reaction. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1985, 40, 1283-1288.	1.5	5
67	Experimental and model study of the formation of chitosan-tripolyphosphate-siRNA nanoparticles. Colloid and Polymer Science, 2014, 292, 2869-2880.	2.1	5
68	Low Dimensional Strange Attractors in Epidemics of Childhood Diseases in Copenhagen, Denmark. , 1987, , 249-254.		5
69	Chaos: From theory to applications for the 80th birthday of Otto E. RÃ¶ssler. Chaos, 2021, 31, 060402.	2.5	4
70	Complexity in subnetworks of a peroxidaseâ€“oxidase reaction model. Chaos, 2022, 32, .	2.5	4
71	Routes to chaos in the peroxidase-oxidase reaction. , 1999, , 252-272.		3
72	Functional imaging of a model unicell: Spironucleus vortens as an anaerobic but aerotolerant flagellated protist. Advances in Microbial Physiology, 2020, 76, 41-79.	2.4	3

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73	Polymeric pH nanosensor with extended measurement range bearing octaarginine as cell penetrating peptide. IET Nanobiotechnology, 2016, 10, 8-12.	3.8	2
74	THE PEROXIDASE-OXIDASE REACTION: A CASE FOR CHAOS IN THE BIOCHEMISTRY OF THE CELL. , 1991, , 299-315.		2
75	Exploring Natureâ€™s Roulette Wheel: Chaos in Biological Systems. , 1991, , 173-185.		1
76	Light-Induced Protein Uptake in Chloroplasts Suspended in Fluid Media at Subzero Temperatures. Biochemical Society Transactions, 1978, 6, 1277-1277.	3.4	0
77	No music without melody: How to understand biochemical systems by understanding their dynamics. , 0, , 81-93.		0
78	Oscillations in Yeast Glycolysis. Understanding Complex Systems, 2021, , 211-224.	0.6	0
79	Electron Transfer Reactions Involving Plastoquinone in Stacked and Unstacked Thylakoids. , 1984, , 71-74.		0
80	Transient and Steady-State Kinetics of the Reaction Between Cytochrome c and the Photosystem I Reaction Centre in Cyanobacteria. , 1984, , 675-678.		0
81	Dynamic Instabilities Within Living Neutrophils. , 2007, , 319-335.		0
82	Proton Transport Across the Thylakoid Membrane at Subzero Temperatures. Biochemical Society Transactions, 1979, 7, 1117-1117.	3.4	0