Leonid M Martyushev

List of Publications by Year
in descending order

61 papers	526 citations	759055 12 h-index	713332 21 g-index
64 all docs	64 docs citations	64 times ranked	246 citing authors

#	Article	IF	Citations
1	Entropy and Entropy Production: Old Misconceptions and New Breakthroughs. Entropy, 2013, 15, 1152-1170.	1.1	131
2	The maximum entropy production principle: two basic questions. Philosophical Transactions of the Royal Society B: Biological Sciences, 2010, 365, 1333-1334.	1.8	49
3	On the problem of the minimum entropy production in the nonequilibrium stationary state. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 371-380.	0.7	44
4	Some interesting consequences of the maximum entropy production principle. Journal of Experimental and Theoretical Physics, 2007, 104, 651-654.	0.2	26
5	Specific features of the loss of stability during radial displacement of fluid in the Heleâ€"Shaw cell. Journal of Physics Condensed Matter, 2008, 20, 045201.	0.7	20
6	From dendrites and S-shaped growth curves to the maximum entropy production principle. JETP Letters, 2003, 78, 476-479.	0.4	16
7	Calculations of the complete morphological phase diagram for nonequilibrium growth of a spherical crystal under arbitrary surface kinetics. Journal of Experimental and Theoretical Physics, 2002, 94, 307-314.	0.2	15
8	Minimal time, Weibull distribution and maximum entropy production principle. Physics of Life Reviews, 2019, 28, 83-84.	1.5	15
9	Maximum entropy production principle: history and current status. Physics-Uspekhi, 2021, 64, 558-583.	0.8	15
10	Experimental investigation of the onset of instability in a radial Hele-Shaw cell. Physical Review E, 2009, 80, 066306.	0.8	14
11	Thermodynamic model of nonequilibrium phase transitions. Physical Review E, 2011, 84, 011113.	0.8	13
12	Metastability at the displacement of a fluid in a Hele-Shaw cell. JETP Letters, 2014, 99, 446-451.	0.4	13
13	On Interrelation of Time and Entropy. Entropy, 2017, 19, 345.	1.1	13
14	Morphological stability of the interphase boundary of a fluid displaced in a finite Hele-Shaw cell. Technical Physics Letters, 2008, 34, 213-216.	0.2	8
15	Entropy production and stability during radial displacement of fluid in Heleâ€"Shaw cell. Journal of Physics Condensed Matter, 2008, 20, 465102.	0.7	8
16	Normalized increment of crystal mass as a possible universal parameter for dendritic growth. Physical Review E, 2012, 85, 041604.	0.8	8
17	A universal model of ontogenetic growth. Die Naturwissenschaften, 2015, 102, 29.	0.6	8
18	Coexistence of axially disturbed spherical particles during their nonequilibrium growth. Europhysics Letters, 2010, 90, 10012.	0.7	7

#	ARTICLE	IF	CITATIONS
19	Weakly nonlinear analysis of the morphological stability of a two-dimensional cylindrical crystal. Journal of Experimental and Theoretical Physics, 2004, 98, 986-996.	0.2	6
20	Entropy Production of Main-Sequence Stars. Entropy, 2015, 17, 658-668.	1.1	6
21	Entropic Measure of Time, and Gas Expansion in Vacuum. Entropy, 2016, 18, 233.	1.1	6
22	Morphological stability of a crystal with respect to arbitrary boundary perturbations. Technical Physics Letters, 2006, 32, 614-617.	0.2	5
23	Morphological stability of an interface between two non-Newtonian fluids moving in a Hele-Shaw cell. Physical Review E, 2015, 91, 013004.	0.8	5
24	Specific mass increment and nonequilibrium crystal growth. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 3819-3826.	1.2	4
25	Fluctuation theorem and thermodynamic entropy. JETP Letters, 2015, 102, 557-560.	0.4	4
26	Morphological stability of the interface between two fluids with similar-in-value viscosities during displacement in a Heleâ€"Shaw cell. Fluid Dynamics, 2016, 51, 629-632.	0.2	4
27	Metastability at the Loss of the Morphological Stability of the Moving Boundary of a Fluid. JETP Letters, 2018, 108, 38-43.	0.4	4
28	Entropy production and luminosityâ€"effective temperature relation for main-sequence stars. Physica A: Statistical Mechanics and Its Applications, 2019, 528, 121403.	1.2	4
29	From an Entropic Measure of Time to Laws of Motion. Entropy, 2019, 21, 222.	1.1	4
30	Principle of Least Effort and Sentence Length in Public Speaking. Entropy, 2021, 23, 1023.	1.1	4
31	Reentrant kinetic phase transitions during dendritic growth of crystals in a two-dimensional medium with phase separation. Technical Physics Letters, 1997, 23, 495-497.	0.2	3
32	Kinetic growth characteristics of a single dendrite during crystallization from a solution. Technical Physics Letters, 1999, 25, 830-832.	0.2	3
33	Self-similarity in the kinetic growth regime of a crystal in a phase-separating medium. Technical Physics Letters, 1999, 25, 833-835.	0.2	3
34	The Curie principle and diffusion limited aggregation. Technical Physics Letters, 2003, 29, 544-546.	0.2	3
35	Entropy Production of Stars. Entropy, 2015, 17, 3645-3655.	1.1	3
36	Nonequilibrium Thermodynamics and Scale Invariance. Entropy, 2017, 19, 126.	1.1	3

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37	Living systems do not minimize free energy. Physics of Life Reviews, 2018, 24, 40-41.	1.5	3
38	Thermal dendrites on the surface of water and water solution. AIP Conference Proceedings, 2019, , .	0.3	3
39	Treelike Thermal Structures on the Water Surface. Physics of Fluids, 0, , .	1.6	3
40	Determining the order parameter for the morphological analysis of two-dimensional structures. Technical Physics Letters, 2001, 27, 301-304.	0.2	2
41	Morphological phase diagram of a spherical crystal growing under nonequilibrium conditions at the growth rate as a quadratic function of supersaturation. Physics of the Solid State, 2004, 46, 2115-2120.	0.2	2
42	Dendritic growth of snow crystals. Crystallography Reports, 2005, 50, 499-503.	0.1	2
43	Ontogenetic growth: Schmalhausen or von Bertalanffy?. Physics of Life Reviews, 2013, 10, 389-390.	1.5	2
44	Invariance of specific mass increment in the case of non-equilibrium growth. Chinese Physics B, 2015, 24, 090502.	0.7	2
45	Morphological stability of a two-dimensional cylindrical crystal with a square-law supersaturation dependence of the growth rate. Journal of Physics Condensed Matter, 2005, 17, 2889-2902.	0.7	1
46	Entropy production guides energy budget. Physics of Life Reviews, 2017, 20, 69-71.	1.5	1
47	Life Defined in Terms of Entropy Production: 20th Century Physics Meets 21st Century Biology. BioEssays, 2020, 42, 2000101.	1.2	1
48	An Evolution Based on Various Energy Strategies. Entropy, 2021, 23, 317.	1.1	1
49	Nonstationary problem of morphological stability of radially displaced fluid in a Heleâ€“Shaw cell. Physics of Fluids, 2021, 33, 044103.	1.6	1
50	Entropy Production and Morphological Selection in Crystal Growth. Understanding Complex Systems, 2014, , 383-396.	0.3	1
51	Modeling dendritic structures on a water surface. AIP Conference Proceedings, 2020, , .	0.3	1
52	The effect of the concentration dependence of a diffusion coefficient on the stability of a growing spherical particle. Technical Physics, 2000, 45, 794-796.	0.2	0
53	Separating a weak periodic component from a nonstationary time series. Technical Physics Letters, 2003, 29, 732-735.	0.2	0
54	Maximum Entropy Production Principle and Morphological Selection in Hydrodynamic Systems. Proceedings (mdpi), 2017, 2, .	0.2	0

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55	Morphological stability of the interface of a bubble growing in a fluid. Two-dimensional case. AIP Conference Proceedings, 2019, , .	0.3	0
56	Nonlinear Non-Equilibrium Thermodynamics Based on the Ehrenfestâ€"Klein Model. Entropy, 2020, 22, 293.	1.1	0
57	Morphological Stability of the Bubble Surface in the Dynamic Growth Regime. 2D Case. Journal of Experimental and Theoretical Physics, 2020, 130, 523-527.	0.2	0
58	10.1007/s11455-008-3011-5. , 2010, 34, 213.		0
59	Analysis of sentence lengths in public speaking. AIP Conference Proceedings, 2020, , .	0.3	0
60	Nonstationary problem of morphological stability of radially displaced fluid. AIP Conference Proceedings, 2020, , .	0.3	0
61	FEM modeling of thermal tree structures on a water surface. AIP Conference Proceedings, 2022, , .	0.3	0