Sergei F. Burlatsky

List of Publications by Year
in descending order

57	1,355	331670 21	345221 36
papers	citations	h-index	g-index

57	57	57	1010
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Molecular Dynamic Study of Water-Cluster Structure in PFSA and PFIA Ionomers. Journal of the Electrochemical Society, 2017, 164, F1265-F1271.	2.9	10
2	Combined Hydrophobicity and Mechanical Durability through Surface Nanoengineering. Scientific Reports, 2015, 5, 9260.	3.3	12
3	Surface tension model for surfactant solutions at the critical micelle concentration. Journal of Colloid and Interface Science, 2013, 393, 151-160.	9.4	65
4	Stalled phase transition model of high-elastic polymer. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P02004.	2.3	3
5	The Model of Stress Distribution in Polymer Electrolyte Membrane. Journal of the Electrochemical Society, 2013, 160, F1129-F1137.	2.9	13
6	A mathematical model for predicting the life of polymer electrolyte fuel cell membranes subjected to hydration cycling. Journal of Power Sources, 2012, 215, 135-144.	7.8	42
7	The Dynamics of Platinum Precipitation in an Ion Exchange Membrane. Journal of the Electrochemical Society, 2011, 158, B322.	2.9	37
8	The Model of Platinum Agglomeration in PAFC Electrodes. ECS Meeting Abstracts, 2011, , .	0.0	0
9	A Novel Kinetic Model to Simulate Evacuation Dynamics. , 2010, , 611-618.		1
10	Degradation of Polymer-Electrolyte Membranes in Fuel Cells. Journal of the Electrochemical Society, 2010, 157, B1542.	2.9	47
11	The impact of thermal conductivity and diffusion rates on water vapor transport through gas diffusion layers. Journal of Power Sources, 2009, 190, 485-492.	7.8	38
12	Degradation of Polymer-Electrolyte Membranes in Fuel Cells. Journal of the Electrochemical Society, 2009, 156, B657.	2.9	54
13	Efficient search by optimized intermittent random walks. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 434008.	2.1	49
14	Direct Mechanism of OH Radicals Formation in PEM Fuel Cells. ECS Transactions, 2008, 6, 69-74.	0.5	22
15	Intermittent random walks for an optimal search strategy: one-dimensional case. Journal of Physics Condensed Matter, 2007, 19, 065142.	1.8	58
16	The potential of catalytic particle in ion exchange membrane. Journal of Electroanalytical Chemistry, 2007, 601, 251-259.	3.8	20
17	Aspects of PEMFC Degradation. ECS Transactions, 2006, 1, 239-246.	0.5	33
18	Mechanical endurance of polymer electrolyte membrane and PEM fuel cell durability. Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 2346-2357.	2.1	287

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19	Types of variations in the geomagnetic field spectrum. Izvestiya, Physics of the Solid Earth, 2006, 42, 207-224.	0.9	1
20	The fine structure of the geomagnetic field. Izvestiya, Physics of the Solid Earth, 2006, 42, 510-520.	0.9	0
21	Biased Tracer Diffusion in Hard-Core Lattice Gases: Some Notes on the Validity of the Einstein Relation. Nonlinear Phenomena and Complex Systems, 2004, , 33-74.	0.0	8
22	Phase boundary dynamics in a one-dimensional non-equilibrium lattice gas. Nonlinear Phenomena and Complex Systems, 2004, , 69-108.	0.0	0
23	Adsorption of reactive particles on a random catalytic chain: An exact solution. Physical Review E, 2003, 67, 016115.	2.1	25
24	Single-species reactions on a random catalytic chain. Journal of Physics A, 2002, 35, L695-L705.	1.6	21
25	Influence of auto-organization and fluctuations on the kinetics of a monomer-monomer catalytic scheme. Physical Review E, 2001, 63, 021110.	2.1	16
26	Spreading of molecularly thin wetting films on solid interfaces. Nonlinear Phenomena and Complex Systems, 2000, , 233-267.	0.0	3
27	Transient relaxation of a charged polymer chain subject to an external field in a random tube. Journal of Chemical Physics, 1998, 109, 2572-2578.	3.0	2
28	Spreading of a macroscopic lattice gas. Physical Review E, 1996, 54, 1489-1496.	2.1	1
29	Scaling model of annihilation-diffusion kinetics for charged particles with long-range interactions. Physical Review E, 1996, 54, R1056-R1057.	2.1	4
30	Spreading of a thin wetting film: Microscopic approach. Physical Review E, 1996, 54, 3832-3845.	2.1	40
31	Sample-size dependence of the ground-state energy in a one-dimensional localization problem. Physical Review E, 1996, 54, 231-242.	2.1	41
32	Motion of a driven tracer particle in a one-dimensional symmetric lattice gas. Physical Review E, 1996, 54, 3165-3172.	2.1	65
33	Solid friction in gel electrophoresis. Journal of Chemical Physics, 1995, 103, 8216-8227.	3.0	7
34	Comment on â€œPair and Triple Correlations in theA+Bâ†’BDiffusion-Controlled Reactionâ€• Physical Review Letters, 1995, 75, 585-585.	7.8	14
35	Apparent rate constant for diffusion-controlled three-molecule reactions. Physical Review E, 1995, 51, 2363-2367.	2.1	17
36	Response. Science, 1994, 264, 113-113.	12.6	1

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37	Anomalous Steady-State Properties of Long-Range A + A .fwdarw. 0 Reactions. The Journal of Physical Chemistry, 1994, 98, 7390-7394.	2.9	14
38	Non-Fickian steady flux in a one-dimensional Sinai-type disordered system. Physical Review A, 1992, 45, R6955-R6957.	2.5	27
39	Kinetics of reactions in random solid mixtures. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 171, 137-140.	2.1	0
40	Directed walk in a one-dimensional lattice gas. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 166, 230-234.	2.1	55
41	Asymptotics of random walk displacement in a percolation system under threshold. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 161, 147-152.	2.1	1
42	Fluctuation kinetics of diffusion-controlled processes: Strong effects due to correlations and fluctuations. Journal of Statistical Physics, 1991, 65, 1095-1107.	1.2	21
43	Reaction kinetics in polymer systems. Journal of Statistical Physics, 1991, 65, 1109-1122.	1.2	15
44	Correlation Effects in Many-Body Reactive Systems. Research Reports in Physics, 1991, , 129-134.	0.0	0
45	Anomalous Transport Through Thin Disordered Layers. Research Reports in Physics, 1991, , 121-128.	0.0	0
46	Long-time asymptotics for the reaction of static recombination. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 145, 56-60.	2.1	9
47	Diffusion-controlled reactions with polymers. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 145, 61-65.	2.1	26
48	Direct energy transfer in polymer systems. Physical Review Letters, 1990, 65, 3205-3208.	7.8	21
49	Fluctuation-induced kinetics of reversible coagulation. Journal of Physics A, 1989, 22, L973-L976.	1.6	25
50	Metastable states in diffusion-controlled processes. Journal of Physics A, 1989, 22, 531-535.	1.6	19
51	Fluctuation-dominated kinetics of incoherent excitation quenching. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 139, 241-244.	2.1	23
52	Fluctuation-induced kinetics of reversible reactions. Journal of Physics A, 1989, 22, L977-L982.	1.6	28
53	Probability distribution for trajectories of a polymer chain segment. Theoretical and Mathematical Physics(Russian Federation), 1988, 75, 659-663.	0.9	9
54	Kinetics of diffusion-controlled reactions of particles with a nonuniform reactive surface. Theoretical and Experimental Chemistry, 1981, 16, 538-542.	0.8	0

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55	The effect of the nonuniform distribution of reactants on the kinetics of bimolecular recombination. Theoretical and Experimental Chemistry, 1979, 14, 373-377.	0.8	4
56	Destruction rate of 2,6-diphenyl-4-(3',5'-diphenyl-4'-hydroxyphenyl)phenoxyl and 2,6-di-tert-butyl-4-(3',5'-di-tert-butyl-4'-hydroxy phenyl)-phenoxyl radicals. Bulletin of the Academy of Sciences of the USSR Division of Chemical Science, 1978, 27, 1902-1904.	0.0	0
57	Decay kinetics of p-benzosemiquinone radicals and reaction with iron salts. Bulletin of the Academy of Sciences of the USSR Division of Chemical Science, 1975, 24, 870-871.	0.0	1