Dmitrii O Kharchenko

List of Publications by Year
in descending order

59 papers	632 citations	516215 16 h-index	676716 22 g-index
60 all docs	60 docs citations	60 times ranked	120 citing authors

#	Article	IF	Citations
1	Stochastic generalization for a hyperbolic model of spinodal decomposition. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3443-3455.	1.2	33
2	Ab-initio calculations for the structural properties of Zr-Nb alloys. Condensed Matter Physics, 2013, 16, 13801.	0.3	29
3	Phase-field modeling of epitaxial growth in stochastic systems with interacting adsorbate. Physica Scripta, 2011, 83, 045802.	1.2	28
4	Noise-induced pattern formation in system of point defects subjected to irradiation. European Physical Journal B, 2012, 85, 1.	0.6	28
5	Self-organized criticality within fractional Lorenz scheme. Physica A: Statistical Mechanics and Its Applications, 2003, 323, 263-293.	1.2	25
6	A study of pyramidal islands formation in epitaxy within the generalized phase-field model. European Physical Journal B, 2013, 86, 1.	0.6	25
7	Nanosize pattern formation in overdamped stochastic reaction-diffusion systems with interacting adsorbate. Physical Review E, 2012, 86, 041143.	0.8	24
8	Properties of nano-islands formation in nonequilibrium reaction–diffusion systems with memory effects. Physica Scripta, 2012, 86, 055401.	1.2	23
9	Statistical properties of nanosized clusters on a surface in overdamped stochastic reaction-Cattaneo systems. Surface Science, 2014, 630, 158-167.	0.8	20
10	Stochastic effects at ripple formation processes in anisotropic systems with multiplicative noise. Physical Review E, 2010, 82, 061108.	0.8	19
11	Abnormal grain growth in nonequilibrium systems: Effects of point defect patterning. Physical Review E, 2014, 89, 042133.	0.8	19
12	Modeling self-organization of nano-size vacancy clusters in stochastic systems subjected to irradiation. Radiation Effects and Defects in Solids, 2014, 169, 418-436.	0.4	19
13	Scaling properties of pyramidal islands formation process at epitaxial growth. European Physical Journal B, 2015, 88, 1.	0.6	19
14	Noise induced patterning in reaction-diffusion systems with non-Fickian diffusion. Physica D: Nonlinear Phenomena, 2009, 238, 2251-2260.	1.3	18
15	Noise induced patterning in periodic systems with conserved dynamics. Physica A: Statistical Mechanics and Its Applications, 2010, 389, 3356-3367.	1.2	18
16	Phase transitions induced by noise cross-correlations. Physical Review E, 2005, 71, 041101.	0.8	17
17	Simulation of a Spatial Organization of Point Defects in Irradiated Systems. Ukrainian Journal of Physics, 2013, 58, 993-1008.	0.1	16
18	Morphology change of the silicon surface induced by Ar^{+} ion beam sputtering. Condensed Matter Physics, 2011, 14, 23602.	0.3	16

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19	Phase separation in binary systems with internal multiplicative noise. Physica A: Statistical Mechanics and Its Applications, 2008, 387, 5342-5354.	1.2	15
20	Statistical properties of abnormal nano-sized adsorbate islands growth in a model of adsorptive multilayer system. Surface Science, 2015, 637-638, 90-100.	0.8	15
21	Pattern selection processes and noise induced pattern-forming transitions in periodic systems with transient dynamics. Open Physics, 2011, 9, .	0.8	14
22	Nano-sized Adsorbate Structure Formation in Anisotropic Multilayer System. Nanoscale Research Letters, 2017, 12, 337.	3.1	14
23	Properties of spatial arrangement of V-type defects in irradiated materials: 3D-modelling. Condensed Matter Physics, 2013, 16, 33001.	0.3	14
24	Phase separation in binary systems with competing internal and external multiplicative noises. European Physical Journal B, 2010, 76, 37-48.	0.6	13
25	Evolution of a stochastic system within the framework of Tsallis statistics. Physica A: Statistical Mechanics and Its Applications, 2005, 354, 262-280.	1.2	12
26	Phase transitions induced by thermal fluctuations. European Physical Journal B, 2008, 61, 95-103.	0.6	12
27	Fluctuation induced reconstruction of phase transition. European Physical Journal B, 2003, 32, 375-382.	0.6	9
28	Chaos in a generalized Lorenz system. Chaos, Solitons and Fractals, 2009, 41, 2595-2605.	2.5	9
29	Evolution of the system with multiplicative noise. Physica A: Statistical Mechanics and Its Applications, 2001, 293, 178-188.	1.2	7
30	Universality and self-similar behaviour of non-equilibrium systems with non-Fickian diffusion. Condensed Matter Physics, 2014, 17, 33004.	0.3	7
31	Phase field modelling voids nucleation and growth in binary systems. Condensed Matter Physics, 2018, 21, 13002.	0.3	7
32	Coloured noise influence on system evolution. European Physical Journal B, 2002, 29, 97-103.	0.6	6
33	Modeling microstructure evolution of binary systems subjected to irradiation and mechanical loading. Radiation Effects and Defects in Solids, 2015, 170, 584-600.	0.4	6
34	Modeling phase decomposition and patterning in binary alloy systems subjected to neutron irradiation. Radiation Effects and Defects in Solids, 2016, 171, 819-839.	0.4	6
35	Thermal effects in nano-sized adsorbate islands growth processes at vapor deposition. Physica A: Statistical Mechanics and Its Applications, 2016, 444, 689-699.	1.2	6
36	Multiscale Modelling of Self-Organization of Non-Equilibrium Point Defects in Irradiated α-Zirconium. Progress in Physics of Metals, 2017, 18, 295-400.	0.5	6

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37	A study of void size growth in nonequilibrium stochastic systems of point defects. European Physical Journal B, 2016, 89, 1.	0.6	5
38	Patterning and pattern selection in a surface layer: Feedback between point defects population and surface layer temperature variations. Physica A: Statistical Mechanics and Its Applications, 2016, 463, 152-162.	1.2	5
39	First-principle calculations of vacancy clustering in zirconium-based alloys. Journal of Nuclear Materials, 2021, 554, 153079.	1.3	5
40	A study of phase separation processes in presence of dislocations in binary systems subjected to irradiation. Condensed Matter Physics, 2015, 18, 23003.	0.3	5
41	Kinetics of phase transitions with singular multiplicative noise. Physics of the Solid State, 2000, 42, 532-538.	0.2	4
42	Path integral solution of the system with coloured multiplicative noise. Physica A: Statistical Mechanics and Its Applications, 2002, 308, 113-124.	1.2	4
43	Islands growth control in adsorptive multilayer plasma-condensate systems. Journal of Crystal Growth, 2019, 514, 1-7.	0.7	4
44	Phase field modeling precipitation of β-phase and mechanical properties change in Zr–Nb alloys under neutron irradiation. Radiation Effects and Defects in Solids, 2020, 175, 602-626.	0.4	4
45	Stability of β-Nb phase in Zr–Nb alloys under neutron irradiation: Phase field modeling. Journal of Applied Physics, 2021, 129, 035104.	1.1	4
46	Self-Organization of an Ensemble of Vacancies under the Spinodal Decomposition of Binary Systems at Continuous Irradiation. Ukrainian Journal of Physics, 2016, 61, 265-278.	0.1	4
47	SCALING LAWS IN STOCHASTIC SYSTEMS WITH ANOMALOUS DIFFUSION. Fluctuation and Noise Letters, 2002, 02, L273-L278.	1.0	3
48	Point defects patterning in irradiated α-zirconium: numerical study in the framework of the rate theory. Radiation Effects and Defects in Solids, 2018, 173, 527-554.	0.4	3
49	Microstructure evolution of cascade annealing in irradiated pure α-Zr: a molecular dynamics study. Radiation Effects and Defects in Solids, 2019, 174, 752-764.	0.4	3
50	An Atomic Scale Study of Structural and Electronic Properties for α-Zirconium with Single Vacancies and Vacancy Clusters. Metallofizika I Noveishie Tekhnologii, 2016, 38, 1195-1212.	0.2	2
51	An influence of vacancies and elastic deformation coupling onto phase decomposition of binary systems. Physica A: Statistical Mechanics and Its Applications, 2017, 486, 497-507.	1.2	1
52	Nonequilibrium phase transitions in stochastic systems with coloured fluctuations. Condensed Matter Physics, 2006, 9, 15.	0.3	1
53	A Study of Atomic Displacements Produced in Cascades in Irradiated α-Zr by Using Molecular Dynamics Simulations. Metallofizika I Noveishie Tekhnologii, 2016, 38, 1303-1320.	0.2	1
54	<title>Fluctuation-induced reconstruction of defect structure</title>. , 2004, , .		0

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55	Nano-Sized Pattern Formation in Nonequilibrium Adsorptive Systems with Interacting Adsorbate. Springer Proceedings in Physics, 2016, , 69-84.	0.1	0
56	Nano-sized Adsorbate Island Formation in Adsorptive Anisotropic Multilayer Systems. Springer Proceedings in Physics, 2019, , 135-152.	0.1	0
57	Electromigration-induced formation of percolating adsorbate islands during condensation from the gaseous phase: a computational study. Beilstein Journal of Nanotechnology, 2021, 12, 694-703.	1.5	0
58	Self-Organized Criticality within the Framework of the Variational Principle. , 2005, , 695-715.		0
59	Transitions from low-density state towards high-density state in stochastic bistable plasma-condensate systems. Condensed Matter Physics, 2018, 21, 43001.	0.3	0