Elena V Levchenko

List of Publications by Year
in descending order

64	691	566801 15	642321 23
papers	citations	h-index	g-index

73	73	73	418
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Molecular dynamics simulation of the alloying reaction in Al-coated Ni nanoparticle. Computational Materials Science, 2010, 47, 712-720.	1.4	56
2	Atomic mechanisms of pure iron vitrification. Journal of Experimental and Theoretical Physics, 2004, 99, 522-529.	0.2	33
3	Molecular dynamics simulation and theoretical analysis of carbon diffusion in cementite. Acta Materialia, 2009, 57, 846-853.	3.8	30
4	Kinetics of isothermal nucleation in a supercooled iron melt. Physics of the Solid State, 2006, 48, 815-820.	0.2	28
5	Shrinking kinetics by vacancy diffusion of a pure element hollow nanosphere. Philosophical Magazine, 2007, 87, 3787-3796.	0.7	28
6	Reaction of a Ni-coated Al nanoparticle to formB2-NiAl: A molecular dynamics study. Philosophical Magazine Letters, 2009, 89, 815-830.	0.5	26
7	Atomic mechanisms of formation and structure relaxation of Fe83M17 (M: C, B, P) metallic glass. Acta Materialia, 2003, 51, 2665-2674.	3.8	24
8	Molecular dynamics simulation of alloying in a Ti-coated Al nanoparticle. Intermetallics, 2012, 22, 193-202.	1.8	24
9	Composition dependence of diffusion and thermotransport in Ni-Al melts: A step towards molecular dynamics assisted databases. Acta Materialia, 2017, 136, 74-89.	3.8	24
10	Molecular dynamics determination of the timeâ€“temperatureâ€“transformation diagram for crystallization of an undercooled liquid Ni50Al50 alloy. Acta Materialia, 2011, 59, 6412-6419.	3.8	23
11	Molecular dynamics simulation of the thermophysical properties of an undercooled liquid Ni50Al50 alloy. Computational Materials Science, 2010, 50, 465-473.	1.4	21
12	Interdiffusion and surface-sandwich ordering in initial Ni-coreâ€“Pd-shell nanoparticle. Physical Chemistry Chemical Physics, 2009, 11, 3233.	1.3	20
13	Molecular dynamics study of reaction pathways in an Al-coated Ni nanoparticle. Intermetallics, 2011, 19, 934-941.	1.8	19
14	Molecular dynamics simulation of alloying in an Al-coated Ti nanoparticle. Computational Materials Science, 2013, 79, 316-325.	1.4	19
15	Thermotransport in binary system: case study on Ni₅₀Al₅₀melt. Philosophical Magazine, 2014, 94, 3574-3602.	0.7	19
16	Molecular dynamics prediction of phonon-mediated thermal conductivity of f.c.c. Cu. Philosophical Magazine, 2014, 94, 731-751.	0.7	18
17	Molecular dynamics study of density, surface energy and self-diffusion in a liquid Ni50Al50 alloy. Computational Materials Science, 2010, 50, 331-337.	1.4	16
18	Molecular dynamics simulation of surface segregation in a (110) B2-NiAl thin film. Physical Chemistry Chemical Physics, 2011, 13, 1214-1221.	1.3	16

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19	Molecular dynamics simulation of diffusion in a (110) B2-NiAl film. Intermetallics, 2011, 19, 848-854.	1.8	16
20	Shrinking kinetics by vacancy diffusion of hollow binary alloy nanospheres driven by the Gibbsâ€“Thomson effect. Philosophical Magazine, 2008, 88, 1525-1541.	0.7	15
21	Comparison of the Sauer-Freise and Hall Methods for Obtaining Interdiffusion Coefficients in Binary Alloys. Journal of Phase Equilibria and Diffusion, 2015, 36, 366-374.	0.5	14
22	Molecular dynamics study of phonon-mediated thermal transport in a Ni₅₀Al₅₀melt: case analysis of the influence of the process on the kinetics of solidification. Philosophical Magazine, 2015, 95, 90-111.	0.7	12
23	Influence of the interatomic potential on thermotransport in binary liquid alloys: case study on NiAl. Philosophical Magazine, 2016, 96, 3054-3074.	0.7	12
24	Structural model for vitrification of pure metals. JETP Letters, 2002, 76, 104-106.	0.4	11
25	Formation of a Hollow Binary Alloy Nanosphere: A Kinetic Monte Carlo Study. Journal of Nano Research, 0, 7, 11-17.	0.8	11
26	Self-diffusion and â€˜orderâ€“orderâ€™ kinetics in B2-ordering AB binary systems with a tendency for triple-defect formation: Monte Carlo simulation. Philosophical Magazine, 2013, 93, 1987-1998.	0.7	11
27	The influence of the icosahedral percolation transition in supercooled liquid iron on the diffusion mobility of atoms. Journal of Experimental and Theoretical Physics, 2005, 101, 521-527.	0.2	10
28	The Manning factor for direct exchange and ring diffusion mechanisms. Philosophical Magazine, 2017, 97, 230-247.	0.7	10
29	Stability of Hollow Nanospheres: A Molecular Dynamics Study. Solid State Phenomena, 0, 129, 125-130.	0.3	9
30	The Synthesis, Stability and Shrinkage of Hollow Nanoparticles: An Overview. Journal of Nano Research, 2009, 7, 19-26.	0.8	9
31	Molecular dynamics simulation of surface segregation, diffusion and reaction phenomena in equiatomic Ni-Al systems. Physics of Metals and Metallography, 2012, 113, 1202-1243.	0.3	9
32	Decomposition model for phonon thermal conductivity of a monatomic lattice. Philosophical Magazine, 2014, 94, 3992-4014.	0.7	9
33	Molecular-dynamics study of the Ni60Ag40 binary alloy glass transition. Journal of Experimental and Theoretical Physics, 2007, 105, 1184-1189.	0.2	8
34	Theoretical Study of the Heat of Transport in a Liquid Ni₅₀Al₅₀ Alloy: Green-Kubo Approach. , 0, 2, 159-189.		6
35	Kinetic and molecular dynamics analysis of carbon diffusion in austenite. Philosophical Magazine, 2007, 87, 4335-4357.	0.7	5
36	Theoretical Analysis and Atomistic Modelling of Diffusion and Stability of Pure Element Hollow Nanospheres and Nanotubes. Defect and Diffusion Forum, 0, 277, 21-26.	0.4	5

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37	A structural model for surface-enhanced stabilization in some metallic glass formers. Philosophical Magazine Letters, 2013, 93, 50-57.	0.5	5
38	Phonon Thermal Conductivity of F.C.C. Cu by Molecular Dynamics Simulation. Defect and Diffusion Forum, 0, 336, 169-184.	0.4	5
39	Phonon-mediated heat dissipation in a monatomic lattice: case study on Ni. Philosophical Magazine, 2015, 95, 3640-3673.	0.7	5
40	Insight into interrelation between single-particle and collective diffusion in binary melts. Physica A: Statistical Mechanics and Its Applications, 2018, 490, 1446-1453.	1.2	5
41	Influence of Liquid-Glass Transition on Diffusion and Nucleation in Computer-Simulated Iron. Defect and Diffusion Forum, 2006, 249, 97-104.	0.4	4
42	Stability and Shrinkage by Diffusion in Hollow Nanotubes. Defect and Diffusion Forum, 2007, 266, 39-47.	0.4	4
43	Modelling of the Formation of Pd-Ni Alloy Nanoparticles by Interdiffusion. Defect and Diffusion Forum, 0, 277, 207-212.	0.4	4
44	Vibrational contribution to thermal transport in liquid cooper: Equilibrium molecular dynamics study. Computational Materials Science, 2015, 96, 229-236.	1.4	4
45	Molecular Dynamics Study of Mass Transport Properties of Liquid Cu-Ag Alloys. , 0, 9, 58-72.		4
46	Insight into lattice thermal impedance via equilibrium molecular dynamics: case study on Al. Philosophical Magazine, 2016, 96, 596-619.	0.7	4
47	Cluster model of the structural organization of amorphous iron. Physics of Metals and Metallography, 2010, 109, 563-567.	0.3	3
48	Molecular Dynamics Prediction of the Influence of Composition on Thermotransport in Ni-Al Melts. , 0, 12, 93-110.		3
49	Atomic Mechanism of Carbon Diffusion in Cementite. Defect and Diffusion Forum, 0, 277, 101-106.	0.4	2
50	Carbon Diffusion in Cementite: A Molecular Dynamics Study. Defect and Diffusion Forum, 2009, 283-286, 24-29.	0.4	2
51	Composition Effect on Shrinkage of Hollow Binary Alloy Nanospheres. Defect and Diffusion Forum, 0, 289-292, 665-672.	0.4	2
52	Two-fluid nature of phonon heat conduction in a monatomic lattice. Philosophical Magazine, 2015, 95, 2571-2595.	0.7	2
53	Diffusion in Niâ€“Zr Melts: Insights from Statistical Mechanics and Atomistic Modeling. Advanced Theory and Simulations, 2018, 1, 1800109.	1.3	2
54	Molecular Dynamics Study of Carbon Diffusion in Austenite. Defect and Diffusion Forum, 2006, 258-260, 253-258.	0.4	1

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55	Structural organization of icosahedral coordination polyhedra in a molecular dynamics model of the Ni60Ag40 metallic glass. Journal of Experimental and Theoretical Physics, 2008, 107, 430-434.	0.2	1
56	Surface-Sandwich Segregation Phenomena in Bimetallic Ag-Ni and Pd-Ni Nanoparticles: A Molecular Dynamics Study. Defect and Diffusion Forum, 0, 289-292, 657-664.	0.4	1
57	Structure change of the Cu64Zr36 metallic glass in the conditions of uniaxial deformation. Glass Physics and Chemistry, 2013, 39, 155-161.	0.2	1
58	About a fundamental uncertainty of the contact angle of the catalyst drop on the top of the nanowire. Journal of Applied Physics, 2021, 129, 164302.	1.1	1
59	Short-Range Order in Pd_{42.5}Cu₃₀Ni_{7.5}P₂₀ Bulk and Ribbon Metallic Glasses. Journal of Metastable and Nanocrystalline Materials, 2004, 22, 65-70.	0.1	0
60	Simulation of the Oriented Crystallisation of Cu/Pd(001) Amorphous Film. Solid State Phenomena, 2006, 115, 311-314.	0.3	0
61	Theoretical Studies of Diffusion Kinetics in Austenite. Defect and Diffusion Forum, 2008, 273-276, 455-460.	0.4	0
62	Structural organization in the Cu80Zr20 metallic glass. Journal of Experimental and Theoretical Physics, 2011, 112, 1013-1019.	0.2	0
63	Structural Stability and Energy of a Pd₂Ni Nanofilm: Ab Initio Calculations. Journal of Nanoscience and Nanotechnology, 2012, 12, 8205-8210.	0.9	0
64	Semigrand Canonical and Kinetic Monte Carlo simulations of binary B2-ordered nano-films with triple defects. Intermetallics, 2014, 55, 40-48.	1.8	0