Elena V Levchenko

List of Publications by Citations

64 papers	617 citations	16 h-index	21 g-index
73 ext. papers	647 ext. citations	1.9 avg, IF	3.59 L-index

#	Paper	IF	Citations
64	Molecular dynamics simulation of the alloying reaction in Al-coated Ni nanoparticle. *Computational Materials Science*, **2010**, 47, 712-720	3.2	50
63	Atomic mechanisms of pure iron vitrification. *Journal of Experimental and Theoretical Physics*, **2004**, 99, 522-529	1	32
62	Kinetics of isothermal nucleation in a supercooled iron melt. *Physics of the Solid State*, **2006**, 48, 815-820	0.8	26
61	Molecular dynamics simulation and theoretical analysis of carbon diffusion in cementite. *Acta Materialia*, **2009**, 57, 846-853	8.4	24
60	Reaction of a Ni-coated Al nanoparticle to form B2-NiAl: A molecular dynamics study. *Philosophical Magazine Letters*, **2009**, 89, 815-830	1	24
59	Shrinking kinetics by vacancy diffusion of a pure element hollow nanosphere. *Philosophical Magazine*, **2007**, 87, 3787-3796	1.6	24
58	Atomic mechanisms of formation and structure relaxation of Fe83M17 (M: C, B, P) metallic glass. *Acta Materialia*, **2003**, 51, 2665-2674	8.4	23
57	Molecular dynamics simulation of alloying in a Ti-coated Al nanoparticle. *Intermetallics*, **2012**, 22, 193-202	3.5	22
56	Molecular dynamics determination of the time–temperature–transformation diagram for crystallization of an undercooled liquid Ni50Al50 alloy. *Acta Materialia*, **2011**, 59, 6412-6419	8.4	21
55	Molecular dynamics simulation of the thermophysical properties of an undercooled liquid Ni50Al50 alloy. *Computational Materials Science*, **2010**, 50, 465-473	3.2	19
54	Interdiffusion and surface-sandwich ordering in initial Ni-core-Pd-shell nanoparticle. *Physical Chemistry Chemical Physics*, **2009**, 11, 3233-40	3.6	19
53	Molecular dynamics study of reaction pathways in an Al-coated Ni nanoparticle. *Intermetallics*, **2011**, 19, 934-941	3.5	18
52	Molecular dynamics simulation of alloying in an Al-coated Ti nanoparticle. *Computational Materials Science*, **2013**, 79, 316-325	3.2	17
51	Composition dependence of diffusion and thermotransport in Ni-Al melts: A step towards molecular dynamics assisted databases. *Acta Materialia*, **2017**, 136, 74-89	8.4	17
50	Thermotransport in binary system: case study on Ni50Al50 melt. *Philosophical Magazine*, **2014**, 94, 3574-3602	1.6	17
49	Molecular dynamics study of density, surface energy and self-diffusion in a liquid Ni50Al50 alloy. *Computational Materials Science*, **2010**, 50, 331-337	3.2	16
48	Molecular dynamics simulation of diffusion in a (110) B2-NiAl film. *Intermetallics*, **2011**, 19, 848-854	3.5	15

47	Molecular dynamics simulation of surface segregation in a (110) B2-NiAl thin film. *Physical Chemistry Chemical Physics*, **2011**, 13, 1214-21	3.6	15
46	Molecular dynamics prediction of phonon-mediated thermal conductivity of f.c.c. Cu. *Philosophical Magazine*, **2014**, 94, 731-751	1.6	14
45	Shrinking kinetics by vacancy diffusion of hollow binary alloy nanospheres driven by the Gibbs□Thomson effect. *Philosophical Magazine*, **2008**, 88, 1525-1541	1.6	13
44	Structural model for vitrification of pure metals. *JETP Letters*, **2002**, 76, 104-106	1.2	11
43	Influence of the interatomic potential on thermotransport in binary liquid alloys: case study on NiAl. *Philosophical Magazine*, **2016**, 96, 3054-3074	1.6	11
42	Molecular dynamics study of phonon-mediated thermal transport in a Ni50Al50 melt: case analysis of the influence of the process on the kinetics of solidification. *Philosophical Magazine*, **2015**, 95, 90-111	1.6	10
41	Self-diffusion and □order□order□kinetics in B2-ordering AB binary systems with a tendency for triple-defect formation: Monte Carlo simulation. *Philosophical Magazine*, **2013**, 93, 1987-1998	1.6	10
40	Formation of a Hollow Binary Alloy Nanosphere: A Kinetic Monte Carlo Study. *Journal of Nano Research*, **2009**, 7, 11-17	1	10
39	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	1	10
38	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	1	9
37	Decomposition model for phonon thermal conductivity of a monatomic lattice. *Philosophical Magazine*, **2014**, 94, 3992-4014	1.6	9
36	Stability of Hollow Nanospheres: A Molecular Dynamics Study. *Solid State Phenomena*, **2007**, 129, 125-130	0.4	9
35	The Manning factor for direct exchange and ring diffusion mechanisms. *Philosophical Magazine*, **2017**, 97, 230-247	1.6	8
34	Molecular dynamics simulation of surface segregation, diffusion and reaction phenomena in equiatomic Ni-Al systems. *Physics of Metals and Metallography*, **2012**, 113, 1202-1243	1.2	8
33	The Synthesis, Stability and Shrinkage of Hollow Nanoparticles: An Overview. *Journal of Nano Research*, **2009**, 7, 19-26	1	7
32	Molecular-dynamics study of the Ni60Ag40 binary alloy glass transition. *Journal of Experimental and Theoretical Physics*, **2007**, 105, 1184-1189	1	7
31	Insight into interrelation between single-particle and collective diffusion in binary melts. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 490, 1446-1453	3.3	5
30	A structural model for surface-enhanced stabilization in some metallic glass formers. *Philosophical Magazine Letters*, **2013**, 93, 50-57	1	5

29	Theoretical Study of the Heat of Transport in a Liquid Ni50Al50 Alloy: Green-Kubo Approach **2014**, 2, 159-189		5
28	Theoretical Analysis and Atomistic Modelling of Diffusion and Stability of Pure Element Hollow Nanospheres and Nanotubes. *Defect and Diffusion Forum*, **2008**, 277, 21-26	0.7	5
27	Phonon-mediated heat dissipation in a monatomic lattice: case study on Ni. *Philosophical Magazine*, **2015**, 95, 3640-3673	1.6	4
26	Vibrational contribution to thermal transport in liquid cooper: Equilibrium molecular dynamics study. *Computational Materials Science*, **2015**, 96, 229-236	3.2	4
25	Insight into lattice thermal impedance via equilibrium molecular dynamics: case study on Al. *Philosophical Magazine*, **2016**, 96, 596-619	1.6	4
24	Phonon Thermal Conductivity of F.C.C. Cu by Molecular Dynamics Simulation. *Defect and Diffusion Forum*, **2013**, 336, 169-184	0.7	4
23	Modelling of the Formation of Pd-Ni Alloy Nanoparticles by Interdiffusion. *Defect and Diffusion Forum*, **2008**, 277, 207-212	0.7	4
22	Influence of Liquid-Glass Transition on Diffusion and Nucleation in Computer-Simulated Iron. *Defect and Diffusion Forum*, **2006**, 249, 97-104	0.7	4
21	Stability and Shrinkage by Diffusion in Hollow Nanotubes. *Defect and Diffusion Forum*, **2007**, 266, 39-47	0.7	4
20	Molecular Dynamics Study of Mass Transport Properties of Liquid Cu-Ag Alloys **2016**, 9, 58-72		4
19	Molecular Dynamics Prediction of the Influence of Composition on Thermotransport in Ni-Al Melts **2017**, 12, 93-110		3
18	Cluster model of the structural organization of amorphous iron. *Physics of Metals and Metallography*, **2010**, 109, 563-567	1.2	3
17	Two-fluid nature of phonon heat conduction in a monatomic lattice. *Philosophical Magazine*, **2015**, 95, 2571-2595	1.6	2
16	Composition Effect on Shrinkage of Hollow Binary Alloy Nanospheres. *Defect and Diffusion Forum*, **2009**, 289-292, 665-672	0.7	2
15	Atomic Mechanism of Carbon Diffusion in Cementite. *Defect and Diffusion Forum*, **2008**, 277, 101-106	0.7	2
14	Kinetic and molecular dynamics analysis of carbon diffusion in austenite. *Philosophical Magazine*, **2007**, 87, 4335-4357	1.6	2
13	Structure change of the Cu64Zr36 metallic glass in the conditions of uniaxial deformation. *Glass Physics and Chemistry*, **2013**, 39, 155-161	0.7	1
12	Carbon Diffusion in Cementite: A Molecular Dynamics Study. *Defect and Diffusion Forum*, **2009**, 283-286, 24-29	0.7	1

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11	Surface-Sandwich Segregation Phenomena in Bimetallic Ag-Ni and Pd-Ni Nanoparticles: A Molecular Dynamics Study. *Defect and Diffusion Forum*, **2009**, 289-292, 657-664	0.7	1
10	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	1	1
9	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	2.5	1
8	Diffusion in Ni$_7$Zr Melts: Insights from Statistical Mechanics and Atomistic Modeling. *Advanced Theory and Simulations*, **2018**, 1, 1800109	3.5	1
7	Semigrand Canonical and Kinetic Monte Carlo simulations of binary B2-ordered nano-films with triple defects. *Intermetallics*, **2014**, 55, 40-48	3.5	
6	Structural organization in the Cu80Zr20 metallic glass. *Journal of Experimental and Theoretical Physics*, **2011**, 112, 1013-1019	1	
5	Structural stability and energy of a Pd2Ni nanofilm: ab initio calculations. *Journal of Nanoscience and Nanotechnology*, **2012**, 12, 8205-10	1.3	
4	Theoretical Studies of Diffusion Kinetics in Austenite. *Defect and Diffusion Forum*, **2008**, 273-276, 455-460	0.7	
3	Simulation of the Oriented Crystallisation of Cu/Pd(001) Amorphous Film. *Solid State Phenomena*, **2006**, 115, 311-314	0.4	
2	Molecular Dynamics Study of Carbon Diffusion in Austenite. *Defect and Diffusion Forum*, **2006**, 258-260, 253-258	0.7	
1	Short-Range Order in Pd42.5Cu30Ni7.5P20 Bulk and Ribbon Metallic Glasses. *Journal of Metastable and Nanocrystalline Materials*, **2004**, 22, 65-70	0.2	