Julia A Baimova

List of Publications by Citations

89 papers	1,729 citations	25 h-index	38 g-index
92 ext. papers	1,973 ext. citations	1.9 avg, IF	5.17 L-index

#	Paper	IF	Citations
89	Interfacial thermal conductance of a silicene/graphene bilayer heterostructure and the effect of hydrogenation. *ACS Applied Materials & Interfaces*, **2014**, 6, 18180-8	9.5	99
88	Interface thermal conductance and rectification in hybrid graphene/silicene monolayer. *Carbon*, **2014**, 79, 236-244	10.4	93
87	Discrete breathers in crystals. *Physics-Uspekhi*, **2016**, 59, 446-461	2.8	92
86	Molecular dynamics study of pressure-driven water transport through graphene bilayers. *Physical Chemistry Chemical Physics*, **2016**, 18, 1886-1896	3.6	74
85	Thermal transport in a grapheneMoS2 bilayer heterostructure: a molecular dynamics study. *RSC Advances*, **2015**, 5, 29193-29200	3.7	71
84	Discrete breather clusters in strained graphene. *Europhysics Letters*, **2012**, 100, 36005	1.6	62
83	Unidirectional ripples in strained graphene nanoribbons with clamped edges at zero and finite temperatures. *Physical Review B*, **2012**, 86,	3.3	56
82	Wear and friction between smooth or rough diamond-like carbon films and diamond tips. *Wear*, **2017**, 372-373, 12-20	3.5	51
81	Discrete breathers in hydrogenated graphene. *Journal Physics D: Applied Physics*, **2013**, 46, 305302	3	51
80	Effect of strain on gap discrete breathers at the edge of armchair graphene nanoribbons. *Europhysics Letters*, **2013**, 102, 60004	1.6	50
79	Mechanical properties of bulk carbon nanostructures: effect of loading and temperature. *Physical Chemistry Chemical Physics*, **2014**, 16, 19505-13	3.6	47
78	Morphology and in-plane thermal conductivity of hybrid graphene sheets. *Applied Physics Letters*, **2012**, 101, 211909	3.4	47
77	Thermal conductivity of silicene nanosheets and the effect of isotopic doping. *Journal Physics D: Applied Physics*, **2014**, 47, 165301	3	41
76	An approach for fabrication of Al-Cu composite by high pressure torsion. *Materials Letters*, **2019**, 236, 51-55	3.3	39
75	Mechanical properties of crumpled graphene under hydrostatic and uniaxial compression. *Journal Physics D: Applied Physics*, **2015**, 48, 095302	3	38
74	Discrete breather on the edge of the graphene sheet with the armchair orientation. *JETP Letters*, **2012**, 96, 222-226	1.2	38
73	Ultimate strength, ripples, sound velocities, and density of phonon states of strained graphene. *Computational Materials Science*, **2012**, 53, 194-203	3.2	36

72	Strain-induced ripples in graphene nanoribbons with clamped edges. *Physica Status Solidi (B): Basic Research*, **2012**, 249, 1393-1398	1.3	35
71	Ab initio simulation of gap discrete breathers in strained graphene. *Physics of the Solid State*, **2016**, 58, 633-639	0.8	34
70	Velocities of sound and the densities of phonon states in a uniformly strained flat graphene sheet. *Physics of the Solid State*, **2012**, 54, 866-874	0.8	32
69	From flat graphene to bulk carbon nanostructures. *Physica Status Solidi (B): Basic Research*, **2015**, 252, 1502-1507	1.3	32
68	Stability range for a flat graphene sheet subjected to in-plane deformation. *JETP Letters*, **2011**, 93, 571-576	1.6	30
67	Equilibrium diamond-like carbon nanostructures with cubic anisotropy: Elastic properties. *Physica Status Solidi (B): Basic Research*, **2016**, 253, 1295-1302	1.3	29
66	Mechanical properties and structures of bulk nanomaterials based on carbon nanopolymorphs. *Physica Status Solidi - Rapid Research Letters*, **2014**, 8, 336-340	2.5	28
65	Effect of Stone-Thrower-Wales defect on structural stability of graphene at zero and finite temperatures. *Europhysics Letters*, **2013**, 103, 46001	1.6	25
64	Calculation of the structure of carbon clusters based on fullerene-like C24 and C48 molecules. *Physics of the Solid State*, **2016**, 58, 394-401	0.8	21
63	Mechanical properties of bulk carbon nanomaterials. *Physics of the Solid State*, **2014**, 56, 2010-2016	0.8	21
62	Elastic properties of diamond-like phases based on carbon nanotubes. *Diamond and Related Materials*, **2019**, 97, 107411	3.5	20
61	Crumpled graphene as a hydrogen storage media: Atomistic simulation. *Physica B: Condensed Matter*, **2020**, 583, 412020	2.8	19
60	Intermetallic growth kinetics and microstructure evolution in Al-Cu-Al metal-matrix composite processed by high pressure torsion. *Materials Letters*, **2019**, 253, 412-415	3.3	19
59	ELASTIC DAMPER BASED ON THE CARBON NANOTUBE BUNDLE. *Facta Universitatis, Series: Mechanical Engineering*, **2020**, 18, 001	3.2	19
58	Equilibrium structures of carbon diamond-like clusters and their elastic properties. *Physics of the Solid State*, **2017**, 59, 820-828	0.8	18
57	Discrete breathers in graphane in thermal equilibrium. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2017**, 381, 3049-3053	2.3	18
56	Elastic Properties of Fullerites and Diamond-Like Phases. *Physica Status Solidi (B): Basic Research*, **2019**, 256, 1800049	1.3	18
55	Deformation behavior of diamond-like phases: Molecular dynamics simulation. *Diamond and Related Materials*, **2018**, 81, 154-160	3.5	18

54	Computer simulation of the effect of ultrasound and annealing on the structure of a two-dimensional severely deformed nanocrystalline material. *Physics of Metals and Metallography*, **2011**, 111, 513-519	1.2	17
53	Discrete breathers in graphane: Effect of temperature. *Journal of Experimental and Theoretical Physics*, **2016**, 122, 869-873	1	16
52	A molecular dynamics study of [111]-polarized gap discrete breathers in a crystal with NaCl-type structure. *Technical Physics Letters*, **2012**, 38, 676-679	0.7	15
51	Effect of elastic deformation on phonon spectrum and characteristics of gap discrete breathers in crystal with NaCl-type structure. *Technical Physics Letters*, **2011**, 37, 451-454	0.7	13
50	Molecular dynamics simulation of the effect of dislocations on the martensitic transformations in a two-dimensional model. *Letters on Materials*, **2017**, 7, 442-446	0.9	13
49	Simulation of metal-graphene composites by molecular dynamics: a review. *Letters on Materials*, **2020**, 10, 351-360	0.9	13
48	Property control by elastic strain engineering: Application to graphene. *Journal of Micromechanics and Molecular Physics*, **2017**, 02, 1750001	1.4	12
47	Molecular dynamics simulation of fabrication of Ni-graphene composite: temperature effect. *Micro and Nano Letters*, **2020**, 15, 176-180	0.9	12
46	Symmetric scrolled packings of multilayered carbon nanoribbons. *Physics of the Solid State*, **2016**, 58, 1278-1284	0.8	12
45	Ultrasound influence on behavior of disordered dislocation systems in a crystal with non-equilibrium grain boundaries. *Letters on Materials*, **2016**, 6, 183-188	0.9	12
44	Stability, elastic properties and deformation behavior of graphene-based diamond-like phases. *Computational Materials Science*, **2020**, 172, 109355	3.2	12
43	Discrete breathers in crystals with the NaCl structure. *Russian Physics Journal*, **2013**, 56, 180-191	0.7	10
42	High-energy mesoscale strips observed in two-dimensional atomistic modeling of plastic deformation of nano-polycrystal. *Computational Materials Science*, **2011**, 50, 1414-1417	3.2	9
41	Folding and crumpling of graphene under biaxial compression. *Letters on Materials*, **2014**, 4, 96-99	0.9	9
40	Effect of deformation on dehydrogenation mechanisms of crumpled graphene: molecular dynamics simulation. *Letters on Materials*, **2019**, 9, 81-85	0.9	9
39	Large systems of discrete breathers in graphene. *Letters on Materials*, **2016**, 6, 31-33	0.9	8
38	Deformation Behavior of Three-Dimensional Carbon Structures Under Hydrostatic Compression. *Journal of Structural Chemistry*, **2018**, 59, 884-890	0.9	8
37	Energy exchange between discrete breathers in graphane in thermal equilibrium. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2019**, 383, 1583-1588	2.3	7

36	Nickel nanoparticles inside carbon nanostructures: atomistic simulation. *Mechanics of Advanced Materials and Modern Processes*, **2019**, 5,	2.2	7
35	Dynamics of edge dislocations in a two-dimensional crystal at finite temperatures. *Physics of the Solid State*, **2009**, 51, 1809-1813	0.8	7
34	Atomic Structure and Energy Distribution of Collapsed Carbon Nanotubes of Different Chiralities. *Journal of Nanomaterials*, **2015**, 2015, 1-5	3.2	6
33	Modeling C540-C20 Fullerene Collisions. *Reviews on Advanced Materials Science*, **2018**, 57, 143-150	4.8	6
32	Energy Exchange Between the Discrete Breathers in Graphane. *Russian Physics Journal*, **2015**, 58, 785-790	0.7	5
31	Molecular Dynamics Study of the Deformation Processes of Metallic Materials in Structural and Phase (Martensitic) Transformations. *Physics of Metals and Metallography*, **2018**, 119, 589-597	1.2	5
30	Influence of elastic strain on the density of phonon states and characteristics of discrete breathers in the gap of the phonon spectrum of a crystal with a NaCl structure. *Technical Physics*, **2011**, 56, 1612-1618	0.5	5
29	Two-dimensional model of the ordered alloy for the investigation of martensitic transformations. *Letters on Materials*, **2015**, 5, 359-363	0.9	5
28	Molecular dynamics simulation of structural transformations in Cu-Al system under pressure. *Journal of Physics: Conference Series*, **2020**, 1435, 012065	0.3	4
27	Simulation of the effect of strengthening-phase particles on the plastic deformation of a two-dimensional polycrystal. *Physics of Metals and Metallography*, **2012**, 113, 302-311	1.2	4
26	Translationally invariant kink solutions of discrete ?4 models. *Russian Physics Journal*, **2010**, 53, 231-238	0.7	4
25	Effect of Nanoparticle Size on the Mechanical Strength of Ni-Graphene Composites. *Materials*, **2021** , 14,	3.5	4
24	Kinetics of overcoming obstructions in cooperative grain-boundary sliding in two-dimensional crystals. *Physics of Metals and Metallography*, **2012**, 113, 907-913	1.2	3
23	Wrinkles and Wrinklons in Graphene and Graphene Nanoribbons Under Strain. *Current Nanoscience*, **2016**, 12, 184-191	1.4	3
22	Diamond-like structures under hydrostatic loading: Atomistic simulation. *Computational Materials Science*, **2021**, 192, 110301	3.2	3
21	Numerical Studies of Discrete Quasibreathers in Graphene in the Framework of Density Functional Theory. *Materials Science Forum*, **2016**, 845, 215-218	0.4	3
20	Stability of in-plane delocalized vibrational modes in triangular Morse lattice. *IOP Conference Series: Materials Science and Engineering*, **2018**, 447, 012060	0.4	3
19	Deformation behaviour of re-entrant carbon honeycomb structures. *IOP Conference Series: Materials Science and Engineering*, **2018**, 447, 012035	0.4	3

18	Nonlinear Excitations in Graphene and Other Carbon Nano-Polymorphs. *Understanding Complex Systems*, **2018**, 175-195	0.4	2
17	Highly coherent orientations of graphene on non-reconstructed silicon substrates. *Superlattices and Microstructures*, **2013**, 54, 39-46	2.8	2
16	Effect of small perturbations on the evolution of polycrystalline structure during plastic deformation. *Physics of Metals and Metallography*, **2014**, 115, 918-925	1.2	2
15	Damping of nanocrystalline materials: a review. *Letters on Materials*, **2015**, 5, 485-490	0.9	2
14	Molecular dynamics simulation of diffusion in Mg-Al system under pressure. *IOP Conference Series: Materials Science and Engineering*,1008, 012052	0.4	2
13	Fabrication of Magnesium-Aluminum Composites under High-Pressure Torsion: Atomistic Simulation. *Applied Sciences (Switzerland)*, **2021**, 11, 6801	2.6	2
12	Buckling and Wrinkling of Thin Films and Membranes. *Russian Physics Journal*, **2015**, 58, 1058-1062	0.7	1
11	A Stepwise Approach Towards an Interoperable and Flexible Logging Principle for Audit Trails **2010** ,		1
10	Crumpled Graphene-Storage Media for Hydrogen and Metal Nanoclusters. *Materials*, **2021**, 14,	3.5	1
9	Clusters of Discrete Breathers in Carbon and Hydrocarbon Nanostructures. *Materials Science Forum*, **2016**, 845, 255-258	0.4	1
8	Graphene crumpling as a method of hydrogen storage: Simulation results. *Journal of Micromechanics and Molecular Physics*, **2019**, 04, 1950009	1.4	1
7	Ion sputtering rate of nanostructured FCC, BCC and HCP metals processed by severe plastic deformation. *IOP Conference Series: Materials Science and Engineering*, **2018**, 447, 012001	0.4	1
6	Molecular dynamics investigation of atomic mixing and mechanical properties of Al / Ti interface. *Letters on Materials*, **2021**, 11, 561-565	0.9	1
5	Ni□Graphene Composite Obtained by Pressure□Temperature Treatment: Atomistic Simulations. *Physica Status Solidi - Rapid Research Letters*,2100429	2.5	0
4	Effect of the Structure Morphology on the Mechanical Properties of Crumpled Graphene Fiber. *Fibers*, **2021**, 9, 85	3.7	0
3	Topology of Wrinklons in Graphene Nanoribbons in the Vicinity of Constrained Edge. *Russian Physics Journal*, **2015**, 58, 808-814	0.7	
2	Atomistic Simulation of Cooperative Grain Boundary Sliding in Two-Dimensional Polycrystal. *Journal of Solid Mechanics and Materials Engineering*, **2012**, 6, 22-28		
1	Dehydrogenation of graphane by external driving. *IOP Conference Series: Materials Science and Engineering*, **2018**, 447, 012011	0.4	