

Julia A Baimova

List of Publications by Year in descending order

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201385

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docs citations

92
times ranked

1218
citing authors

#	ARTICLE	IF	CITATIONS
1	Interfacial Thermal Conductance of a Silicene/Graphene Bilayer Heterostructure and the Effect of Hydrogenation. ACS Applied Materials & Interfaces, 2014, 6, 18180-18188.	4.0	123
2	Discrete breathers in crystals. Physics-Uspekhi, 2016, 59, 446-461.	0.8	117
3	Interface thermal conductance and rectification in hybrid graphene/silicene monolayer. Carbon, 2014, 79, 236-244.	5.4	116
4	Molecular dynamics study of pressure-driven water transport through graphene bilayers. Physical Chemistry Chemical Physics, 2016, 18, 1886-1896.	1.3	86
5	Wear and friction between smooth or rough diamond-like carbon films and diamond tips. Wear, 2017, 372-373, 12-20.	1.5	86
6	Thermal transport in a graphene-MoS ₂ bilayer heterostructure: a molecular dynamics study. RSC Advances, 2015, 5, 29193-29200.	1.7	83
7	Discrete breather clusters in strained graphene. Europhysics Letters, 2012, 100, 36005.	0.7	67
8	Unidirectional ripples in strained graphene nanoribbons with clamped edges at zero and finite temperatures. Physical Review B, 2012, 86, .	1.1	63
9	Morphology and in-plane thermal conductivity of hybrid graphene sheets. Applied Physics Letters, 2012, 101, .	1.5	56
10	Discrete breathers in hydrogenated graphene. Journal Physics D: Applied Physics, 2013, 46, 305302.	1.3	56
11	Effect of strain on gap discrete breathers at the edge of armchair graphene nanoribbons. Europhysics Letters, 2013, 102, 60004.	0.7	55
12	An approach for fabrication of Al-Cu composite by high pressure torsion. Materials Letters, 2019, 236, 51-55.	1.3	55
13	Thermal conductivity of silicene nanosheets and the effect of isotopic doping. Journal Physics D: Applied Physics, 2014, 47, 165301.	1.3	54
14	Mechanical properties of bulk carbon nanostructures: effect of loading and temperature. Physical Chemistry Chemical Physics, 2014, 16, 19505.	1.3	49
15	Strain-induced ripples in graphene nanoribbons with clamped edges. Physica Status Solidi (B): Basic Research, 2012, 249, 1393-1398.	0.7	45
16	Mechanical properties of crumpled graphene under hydrostatic and uniaxial compression. Journal Physics D: Applied Physics, 2015, 48, 095302.	1.3	45
17	Discrete breather on the edge of the graphene sheet with the armchair orientation. JETP Letters, 2012, 96, 222-226.	0.4	43
18	Ab initio simulation of gap discrete breathers in strained graphene. Physics of the Solid State, 2016, 58, 633-639.	0.2	43

#	ARTICLE	IF	CITATIONS
19	Ultimate strength, ripples, sound velocities, and density of phonon states of strained graphene. <i>Computational Materials Science</i> , 2012, 53, 194-203.	1.4	40
20	Equilibrium diamond-like carbon nanostructures with cubic anisotropy: Elastic properties. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 1295-1302.	0.7	37
21	Velocities of sound and the densities of phonon states in a uniformly strained flat graphene sheet. <i>Physics of the Solid State</i> , 2012, 54, 866-874.	0.2	34
22	From flat graphene to bulk carbon nanostructures. <i>Physica Status Solidi (B): Basic Research</i> , 2015, 252, 1502-1507.	0.7	34
23	Stability range for a flat graphene sheet subjected to in-plane deformation. <i>JETP Letters</i> , 2011, 93, 571-576.	0.4	33
24	Mechanical properties and structures of bulk nanomaterials based on carbon nanopolymorphs. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 8, 336-340.	1.2	32
25	Intermetallic growth kinetics and microstructure evolution in Al-Cu-Al metal-matrix composite processed by high pressure torsion. <i>Materials Letters</i> , 2019, 253, 412-415.	1.3	32
26	ELASTIC DAMPER BASED ON THE CARBON NANOTUBE BUNDLE. <i>Facta Universitatis, Series: Mechanical Engineering</i> , 2020, 18, 001.	2.3	32
27	Effect of Stone-Thrower-Wales defect on structural stability of graphene at zero and finite temperatures. <i>Europhysics Letters</i> , 2013, 103, 46001.	0.7	31
28	Mechanical properties of bulk carbon nanomaterials. <i>Physics of the Solid State</i> , 2014, 56, 2010-2016.	0.2	29
29	Elastic Properties of Fullerites and Diamond-like Phases. <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1800049.	0.7	28
30	Elastic properties of diamond-like phases based on carbon nanotubes. <i>Diamond and Related Materials</i> , 2019, 97, 107411.	1.8	27
31	Deformation behavior of diamond-like phases: Molecular dynamics simulation. <i>Diamond and Related Materials</i> , 2018, 81, 154-160.	1.8	26
32	Simulation of metal-graphene composites by molecular dynamics: a review. <i>Letters on Materials</i> , 2020, 10, 351-360.	0.2	25
33	Calculation of the structure of carbon clusters based on fullerene-like C ₂₄ and C ₄₈ molecules. <i>Physics of the Solid State</i> , 2016, 58, 394-401.	0.2	22
34	Equilibrium structures of carbon diamond-like clusters and their elastic properties. <i>Physics of the Solid State</i> , 2017, 59, 820-828.	0.2	22
35	Discrete breathers in graphene in thermal equilibrium. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2017, 381, 3049-3053.	0.9	22
36	Stability, elastic properties and deformation behavior of graphene-based diamond-like phases. <i>Computational Materials Science</i> , 2020, 172, 109355.	1.4	22

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37	Crumpled graphene as a hydrogen storage media: Atomistic simulation. <i>Physica B: Condensed Matter</i> , 2020, 583, 412020.	1.3	22
38	Molecular dynamics simulation of fabrication of Ni@graphene composite: temperature effect. <i>Micro and Nano Letters</i> , 2020, 15, 176-180.	0.6	19
39	Computer simulation of the effect of ultrasound and annealing on the structure of a two-dimensional severely deformed nanocrystalline material. <i>Physics of Metals and Metallography</i> , 2011, 111, 513-519.	0.3	17
40	A molecular dynamics study of [111]-polarized gap discrete breathers in a crystal with NaCl-type structure. <i>Technical Physics Letters</i> , 2012, 38, 676-679.	0.2	17
41	Discrete breathers in graphane: Effect of temperature. <i>Journal of Experimental and Theoretical Physics</i> , 2016, 122, 869-873.	0.2	17
42	Nickel nanoparticles inside carbon nanostructures: atomistic simulation. <i>Mechanics of Advanced Materials and Modern Processes</i> , 2019, 5, .	2.2	17
43	Effect of elastic deformation on phonon spectrum and characteristics of gap discrete breathers in crystal with NaCl-type structure. <i>Technical Physics Letters</i> , 2011, 37, 451-454.	0.2	16
44	Symmetric scrolled packings of multilayered carbon nanoribbons. <i>Physics of the Solid State</i> , 2016, 58, 1278-1284.	0.2	16
45	Molecular dynamics simulation of the effect of dislocations on the martensitic transformations in a two-dimensional model. <i>Letters on Materials</i> , 2017, 7, 442-446.	0.2	14
46	Effect of deformation on dehydrogenation mechanisms of crumpled graphene: molecular dynamics simulation. <i>Letters on Materials</i> , 2019, 9, 81-85.	0.2	14
47	Property control by elastic strain engineering: Application to graphene. <i>Journal of Micromechanics and Molecular Physics</i> , 2017, 02, 1750001.	0.7	13
48	Ultrasound influence on behavior of disordered dislocation systems in a crystal with non-equilibrium grain boundaries. <i>Letters on Materials</i> , 2016, 6, 183-188.	0.2	12
49	Folding and crumpling of graphene under biaxial compression. <i>Letters on Materials</i> , 2014, 4, 96-99.	0.2	11
50	High-energy mesoscale strips observed in two-dimensional atomistic modeling of plastic deformation of nano-polycrystal. <i>Computational Materials Science</i> , 2011, 50, 1414-1417.	1.4	10
51	Discrete breathers in crystals with the NaCl structure. <i>Russian Physics Journal</i> , 2013, 56, 180-191.	0.2	10
52	Energy exchange between discrete breathers in graphane in thermal equilibrium. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2019, 383, 1583-1588.	0.9	10
53	Modeling C540-C20 Fullerene Collisions. <i>Reviews on Advanced Materials Science</i> , 2018, 57, 143-150.	1.4	9
54	Deformation Behavior of Three-Dimensional Carbon Structures Under Hydrostatic Compression. <i>Journal of Structural Chemistry</i> , 2018, 59, 884-890.	0.3	8

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55	Effect of Nanoparticle Size on the Mechanical Strength of Niâ€“Graphene Composites. <i>Materials</i> , 2021, 14, 3087.	1.3	8
56	Niâ€“Graphene Composite Obtained by Pressureâ€“Temperature Treatment: Atomistic Simulations. <i>Physica Status Solidi - Rapid Research Letters</i> , 0, , 2100429.	1.2	8
57	Large systems of discrete breathers in graphene. <i>Letters on Materials</i> , 2016, 6, 31-33.	0.2	8
58	Dynamics of edge dislocations in a two-dimensional crystal at finite temperatures. <i>Physics of the Solid State</i> , 2009, 51, 1809-1813.	0.2	7
59	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. <i>Technical Physics</i> , 2011, 56, 1612-1618.	0.2	7
60	Atomic Structure and Energy Distribution of Collapsed Carbon Nanotubes of Different Chiralities. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-5.	1.5	7
61	Crumpled Graphene-Storage Media for Hydrogen and Metal Nanoclusters. <i>Materials</i> , 2021, 14, 2098.	1.3	7
62	Methodology for Molecular Dynamics Simulation of Plastic Deformation of a Nickel/Graphene Composite. <i>Materials</i> , 2022, 15, 4038.	1.3	7
63	Molecular Dynamics Study of the Deformation Processes of Metallic Materials in Structural and Phase (Martensitic) Transformations. <i>Physics of Metals and Metallography</i> , 2018, 119, 589-597.	0.3	6
64	Wrinkles and Wrinklons in Graphene and Graphene Nanoribbons Under Strain. <i>Current Nanoscience</i> , 2016, 12, 184-191.	0.7	6
65	Simulation of the effect of strengthening-phase particles on the plastic deformation of a two-dimensional polycrystal. <i>Physics of Metals and Metallography</i> , 2012, 113, 302-311.	0.3	5
66	Energy Exchange Between the Discrete Breathers in Graphane. <i>Russian Physics Journal</i> , 2015, 58, 785-790.	0.2	5
67	Numerical Studies of Discrete Quasibreathers in Graphene in the Framework of Density Functional Theory. <i>Materials Science Forum</i> , 0, 845, 215-218.	0.3	5
68	Molecular dynamics simulation of structural transformations in Cu-Al system under pressure. <i>Journal of Physics: Conference Series</i> , 2020, 1435, 012065.	0.3	5
69	Two-dimensional model of the ordered alloy for the investigation of martensitic transformations. <i>Letters on Materials</i> , 2015, 5, 359-363.	0.2	5
70	Translationally invariant kink solutions of discrete $\tilde{I} \cdot 4$ models. <i>Russian Physics Journal</i> , 2010, 53, 231-238.	0.2	4
71	Stability of in-plane delocalized vibrational modes in triangular Morse lattice. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 447, 012060.	0.3	4
72	Deformation behaviour of re-entrant carbon honeycomb structures. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 447, 012035.	0.3	4

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73	Graphene crumpling as a method of hydrogen storage: Simulation results. Journal of Micromechanics and Molecular Physics, 2019, 04, 1950009.	0.7	4
74	Fabrication of Magnesium-Aluminum Composites under High-Pressure Torsion: Atomistic Simulation. Applied Sciences (Switzerland), 2021, 11, 6801.	1.3	4
75	Molecular dynamics investigation of atomic mixing and mechanical properties of Al-Ti interface. Letters on Materials, 2021, 11, 561-565.	0.2	4
76	Effect of the Structure Morphology on the Mechanical Properties of Crumpled Graphene Fiber. Fibers, 2021, 9, 85.	1.8	4
77	Kinetics of overcoming obstructions in cooperative grain-boundary sliding in two-dimensional crystals. Physics of Metals and Metallography, 2012, 113, 907-913.	0.3	3
78	Highly coherent orientations of graphene on non-reconstructed silicon substrates. Superlattices and Microstructures, 2013, 54, 39-46.	1.4	3
79	Molecular dynamics simulation of diffusion in Mg-Al system under pressure. IOP Conference Series: Materials Science and Engineering, 0, 1008, 012052.	0.3	3
80	Diamond-like structures under hydrostatic loading: Atomistic simulation. Computational Materials Science, 2021, 192, 110301.	1.4	3
81	Damping of nanocrystalline materials: a review. Letters on Materials, 2015, 5, 485-490.	0.2	3
82	A Stepwise Approach Towards an Interoperable and Flexible Logging Principle for Audit Trails. , 2010, , .		2
83	Effect of small perturbations on the evolution of polycrystalline structure during plastic deformation. Physics of Metals and Metallography, 2014, 115, 918-925.	0.3	2
84	Nonlinear Excitations in Graphene and Other Carbon Nano-Polymorphs. Understanding Complex Systems, 2018, , 175-195.	0.3	2
85	Buckling and Wrinkling of Thin Films and Membranes. Russian Physics Journal, 2015, 58, 1058-1062.	0.2	1
86	Clusters of Discrete Breathers in Carbon and Hydrocarbon Nanostructures. Materials Science Forum, 2016, 845, 255-258.	0.3	1
87	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.	0.3	1
88	Stability and post-critical behavior of graphene sheet under homogeneous plane strain. Letters on Materials, 2011, 1, 171-175.	0.2	1
89	Interaction of atomic force microscope tip with ripples in graphene nanoribbons. Letters on Materials, 2012, 2, 139-142.	0.2	1
90	Atomistic Simulation of Cooperative Grain Boundary Sliding in Two-Dimensional Polycrystal. Journal of Solid Mechanics and Materials Engineering, 2012, 6, 22-28.	0.5	0

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91	Topology of Wrinklons in Graphene Nanoribbons in the Vicinity of Constrained Edge. Russian Physics Journal, 2015, 58, 808-814.	0.2	0
92	Dehydrogenation of graphane by external driving. IOP Conference Series: Materials Science and Engineering, 2018, 447, 012011.	0.3	0