

Dmitry V Lychagin

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Friction-induced slip band relief of Hadfield steel single crystal oriented for multiple slip deformation. <i>Wear</i> , 2017, 374-375, 5-14.	3.1	40
2	Formation of dislocation cell substructure in face-centred cubic metallic solid solutions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 483-484, 179-183.	5.6	39
3	Dry sliding of Hadfield steel single crystal oriented to deformation by slip and twinning: Deformation, wear, and acoustic emission characterization. <i>Tribology International</i> , 2018, 119, 1-18.	5.9	38
4	Macrosegmentation and strain hardening stages in copper single crystals under compression. <i>International Journal of Plasticity</i> , 2015, 69, 36-53.	8.8	36
5	Self-organization of plastic deformation and deformation relief in FCC single crystals. <i>Mechanics of Materials</i> , 2018, 117, 202-213.	3.2	30
6	Orientation dependence of subsurface deformation in dry sliding wear of Cu single crystals. <i>Applied Surface Science</i> , 2013, 274, 22-26.	6.1	28
7	Strain-induced folding on $[11\bar{1}\bar{1}]$ -copper single crystals under uniaxial compression. <i>Applied Surface Science</i> , 2016, 371, 547-561.	6.1	28
8	Influence of structure to plastic deformation resistance of aluminum alloy 1560 after groove pressing treatment. <i>Letters on Materials</i> , 2016, 6, 141-145.	0.7	23
9	Effect of crystallographic states on the development of macrobands and deformation inhomogeneity in $[111]$ nickel single crystals. <i>Physical Mesomechanics</i> , 2011, 14, 66-78.	1.9	21
10	Subsurface structural evolution and wear lip formation on copper single crystals under unlubricated sliding conditions. <i>Wear</i> , 2018, 410-411, 210-221.	3.1	19
11	Influence of oblique angle deposition on Cu-substituted hydroxyapatite nano-roughness and morphology. <i>Surface and Coatings Technology</i> , 2020, 394, 125883.	4.8	19
12	Subsurface deformation in copper single crystals during reciprocal sliding. <i>Physics of the Solid State</i> , 2012, 54, 2034-2038.	0.6	17
13	Strength and Ductility Improvement through Thermomechanical Treatment of Wire-Feed Electron Beam Additive Manufactured Low Stacking Fault Energy (SFE) Aluminum Bronze. <i>Metals</i> , 2020, 10, 1568.	2.3	17
14	Fragmentation, Texturing and Plastic Flow in the Subsurface of Friction-Processed Copper Single Crystal. <i>Advanced Materials Research</i> , 0, 872, 30-35.	0.3	15
15	Crystallographic and Geometric Factors in the Shear Development in γ FCC Single Crystals: Molecular Dynamics Simulation and Experimental Study. <i>Crystals</i> , 2020, 10, 666.	2.2	12
16	Characterization of Deformation Pattern Structure Elements Generated in Uniaxial Compression of Nickel Single Crystals. <i>Applied Mechanics and Materials</i> , 0, 379, 66-70.	0.2	11
17	Pure Aluminum Structure and Mechanical Properties Modified by Al ₂ O ₃ Nanoparticles and Ultrasonic Treatment. <i>Metals</i> , 2019, 9, 1199.	2.3	11
18	Tailoring the Surface Morphology and the Crystallinity State of Cu- and Zn-Substituted Hydroxyapatites on Ti and Mg-Based Alloys. <i>Materials</i> , 2020, 13, 4449.	2.9	11

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19	DISPERSIVE OPTICAL PARAMETERS OF Ni (100) CRYSTAL AND THERMALLY EVAPORATED NICKEL FILMS. <i>Modern Physics Letters B</i> , 2012, 26, 1150029.	1.9	10
20	Structure and Mechanical Properties of Aluminum 1560 Alloy after Severe Plastic Deformation by Groove Pressing. <i>Physical Mesomechanics</i> , 2018, 21, 515-522.	1.9	9
21	Numerical Study and Experimental Validation of Deformation of γ FCC CuAl Single Crystal Obtained by Additive Manufacturing. <i>Metals</i> , 2021, 11, 582.	2.3	9
22	Contact and barrier dislocation resistance and their effect on characteristics of slip and work hardening. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001, 319-321, 261-265.	5.6	8
23	Spatial organization of deformation in aluminum [111] single crystals in compression. <i>Physical Mesomechanics</i> , 2009, 12, 166-174.	1.9	8
24	Folding in FCC metal single crystals under compression. <i>Physics of the Solid State</i> , 2015, 57, 2034-2038.	0.6	8
25	The primary macrofragmentation of shear in compressed aluminum single crystals. <i>Technical Physics Letters</i> , 2003, 29, 516-518.	0.7	7
26	Formation of a single image of material surfaces to measure displacement and strain fields. <i>Optoelectronics, Instrumentation and Data Processing</i> , 2011, 47, 388-394.	0.6	7
27	Improving Characteristics of Austenitic Steels by Modification. <i>Advanced Materials Research</i> , 0, 1040, 236-240.	0.3	7
28	Misorientation Development During the Formation of Macrobands in the [001] Nickel Single Crystals. <i>Russian Physics Journal</i> , 2015, 58, 717-723.	0.4	7
29	The Effect of a Severe Plastic Deformation by Groove Pressing on the Grain Structure of the Al-Mg Alloy. <i>Key Engineering Materials</i> , 0, 743, 187-190.	0.4	7
30	Microstructure of Vein Quartz Aggregates as an Indicator of Their Deformation History: An Example of Vein Systems from Western Transbaikalia (Russia). <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 865.	2.0	7
31	Deformation relief in crystals as a way of stress relaxation. <i>Letters on Materials</i> , 2017, 7, 155-159.	0.7	6
32	Growth and Deformation Simulation of Aluminum Bronze Grains Produced by Electron Beam Additive Manufacturing. <i>Metals</i> , 2022, 12, 114.	2.3	6
33	Cyclic hardening and substructure of Al-Mg alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1991, 138, 49-61.	5.6	4
34	Experimental Research Into Generation of Acoustic Emission Signals in the Process of Friction of Hadfield Steel Single Crystals. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016, 142, 012098.	0.6	4
35	Octahedral slip in nickel single crystals induced by scratch testing. <i>Letters on Materials</i> , 2018, 8, 415-418.	0.7	4
36	Plastic strain arrangement in copper single crystals in sliding. , 2014, , .		3

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37	Slip as the basic mechanism for formation of deformation relief structural elements. Physics of the Solid State, 2017, 59, 1433-1439.	0.6	3
38	Deformation relief induced by scratch testing on the surface of Hadfield steel. AIP Conference Proceedings, 2017, , .	0.4	3
39	Micromorphology and spectroscopic ellipsometry of Ni(100) crystal surface. Physics Procedia, 2012, 23, 61-64.	1.2	2
40	Structural State, Phase Composition and Mechanical Properties of Wear-Resistant Cast Iron Modified by Ultrafine Powders. Advanced Materials Research, 2013, 872, 84-88.	0.3	2
41	Laws of Development of Deformation Folds in [1 ¹¹] Copper Single Crystal at Axis Compression. Applied Mechanics and Materials, 2014, 682, 448-452.	0.2	2
42	Systematic Classifier OF Manufacturing Processes For Medium Size Shafts. IOP Conference Series: Materials Science and Engineering, 2016, 125, 012030.	0.6	2
43	Relationship between acoustic emission and microcrack formation in single crystals of Hadfield steel. AIP Conference Proceedings, 2018, , .	0.4	2
44	Copper and Hadfield steel deformation structures near the friction surface. AIP Conference Proceedings, 2018, , .	0.4	2
45	Relation between the Hurst Exponent and the Efficiency of Self-organization of a Deformable System. Technical Physics, 2018, 63, 540-545.	0.7	2
46	Features of plastic deformations of quartz-pyrite mineral associations of the Gabriel mine. AIP Conference Proceedings, 2019, , .	0.4	2
47	Nucleation and growth of small surface cracks in aluminium alloy AMg6 as related to discontinuity of the fatigue curve. International Journal of Fatigue, 1991, 13, 370-376.	5.7	1
48	Distribution of Alloying Elements in $\hat{1}^3$ - and $\hat{1}^3\hat{a}^2$ -Phases of Heat-Resistant Alloy PWA 1480. Applied Mechanics and Materials, 2013, 379, 149-153.	0.2	1
49	Crystallographic analysis of rock grain orientation at meso- and microscale levels. , 2014, , .		1
50	Structure of welded joints obtained by contact weld in nanostructured titanium. AIP Conference Proceedings, 2015, , .	0.4	1
51	Wrinkling and Folding in Copper Single Crystals under Compression and Sliding. Advanced Materials Research, 0, 1085, 351-354.	0.3	1
52	Regularities of misorientation in [1 \hat{A} 11] FCC single crystals. AIP Conference Proceedings, 2017, , .	0.4	1
53	Influence of Ultrafine Particles on Structure, Mechanical Properties, and Strengthening of Ductile Cast Iron. Metals, 2018, 8, 559.	2.3	1
54	Study of the Structure and Mechanical Properties of Aluminum Bronze Printed by Electron Beam Additive Manufacturing. Metal Working and Material Science, 2020, 22, 118-129.	0.3	1

#	ARTICLE	IF	CITATIONS
55	IMPACT OF THE MICROSTRUCTURE CHANGES UNDER CYCLIC GROOVE PRESSING ON THE MECHANICAL BEHAVIOR OF Mg-Mn-E MAGNESIUM ALLOY. Vestnik Tomskogo Gosudarstvennogo Universiteta, Matematika i Mekhanika, 2019, , 109-118.	0.3	1
56	Dispersive optical parameters of evaporated nickel films. , 2010, , .		0
57	Patterns of folded structure formation in the maximum bending zone of [111] FCC single crystals. IOP Conference Series: Materials Science and Engineering, 2015, 91, 012024.	0.6	0
58	Folding in single crystals concavity areas during compression. AIP Conference Proceedings, 2015, , .	0.4	0
59	Preferred Orientation Evolution of Olivine Grains as an Indicator of Change in the Deformation Mechanism. IOP Conference Series: Materials Science and Engineering, 2015, 91, 012025.	0.6	0
60	Comparison of mathematical methods of geochemical data processing. IOP Conference Series: Materials Science and Engineering, 2015, 91, 012083.	0.6	0
61	The empirical definition of total emissivity of modern superthin liquid composite thermal insulators. IOP Conference Series: Materials Science and Engineering, 2016, 156, 012001.	0.6	0
62	Influence of Lateral Incision on Inhomogeneous Deformation of a Nickel [001] - Single Crystal at Axial Compression. IOP Conference Series: Materials Science and Engineering, 2016, 125, 012004.	0.6	0
63	Development of Misorientation in FCC Single Crystals Under Compression at Different Scales. IOP Conference Series: Materials Science and Engineering, 2016, 142, 012053.	0.6	0
64	Effect of Initial Microtopography and Ultrasonic Treatment Mode on Steel Surface Layer Quality. IOP Conference Series: Materials Science and Engineering, 2016, 125, 012033.	0.6	0
65	Segmentation Effect on Inhomogeneity of [110]-Single Crystal Deformation. IOP Conference Series: Materials Science and Engineering, 2016, 142, 012052.	0.6	0
66	Acoustic emission evolution during sliding friction of Hadfield steel single crystal. AIP Conference Proceedings, 2017, , .	0.4	0
67	Transformations of the dislocation structure of nickel single crystals. AIP Conference Proceedings, 2017, , .	0.4	0
68	Two-dimensional and three-dimensional evaluation of the deformation relief. AIP Conference Proceedings, 2017, , .	0.4	0
69	The formation of a quasi-periodic surface profile by means of dislocation slip. Journal of Physics: Conference Series, 2017, 803, 012002.	0.4	0
70	Compression strain-induced folding at intersecting deformation macrobands on the copper single crystals. AIP Conference Proceedings, 2017, , .	0.4	0
71	Deformation relief evolution during sliding friction of Hadfield steel single crystal. AIP Conference Proceedings, 2017, , .	0.4	0
72	Influence of crystallographic symmetry on the self-organization of plastic deformation in [111] nickel single crystals. AIP Conference Proceedings, 2018, , .	0.4	0

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73	Deformation relief on the surface of Hadfield steel single crystals, observed using a scratch test. AIP Conference Proceedings, 2018, , .	0.4	0
74	Deformation behavior of Cu-1.5Co-3Al single crystals during sliding friction. AIP Conference Proceedings, 2019, , .	0.4	0
75	Determination of sliding and twinning shear stress during microindentation of Hadfield steel single crystals. Letters on Materials, 2020, 10, 451-456.	0.7	0
76	Mechanical Aspects of Nonhomogeneous Deformation of Aluminum Single Crystals under Compression along [100] and [110] Directions. Metals, 2022, 12, 397.	2.3	0