Lev B Zuev

List of Publications by Year
in descending order

58	426	840776 11	839539 18
papers	citations	h-index	g-index

58	58	58	88
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Wave phenomena in low-rate plastic flow of solids. Annalen Der Physik, 2001, 10, 965-984.	2.4	58
2	Experimental study of plastic flow macro-scale localization process: Pattern, propagation rate, dispersion. International Journal of Mechanical Sciences, 2014, 88, 1-7.	6.7	37
3	Autowave model of localized plastic flow of solids. Physics of Wave Phenomena, 2009, 17, 66-75.	1.1	35
4	Pattern formation in the work hardening process of single alloyed Î³-Fe crystals. International Journal of Plasticity, 2001, 17, 47-63.	8.8	31
5	<title>Instrumentation for speckle interferometry and techniques for investigating deformation and fracture</title>. , 2002, 4900, 1197.		26
6	Significant correlation between macroscopic and microscopic parameters for the description of localized plastic flow auto-waves in deforming alloys. Solid State Communications, 2012, 152, 784-787.	1.9	25
7	Tensile plastic strain localization in single crystals of austenite steel electrolytically saturated with hydrogen. Technical Physics Letters, 2011, 37, 793-796.	0.7	22
8	Plastic Flow Macrolocalization: Autowave and Quasi-Particle. Journal of Modern Physics, 2010, 01, 1-8.	0.6	18
9	Plastic Flow Localization Viewed as an Auto-Wave Process Generated in Deforming Metals. Solid State Phenomena, 0, 172-174, 1279-1283.	0.3	18
10	Plastic deformation localization in commercial Zr-base alloys. International Journal of Plasticity, 2004, 20, 1227-1249.	8.8	17
11	Evidence for the existence of localized plastic flow au-to-waves generated in deforming metals. Natural Science, 2010, 02, 476-483.	0.4	15
12	Effect of Hydrogen on Plastic Strain Localization of Construction Steels. Advanced Materials Research, 2014, 880, 42-47.	0.3	14
13	Laboratory observation of slow movements in rocks. Journal of Applied Mechanics and Technical Physics, 2012, 53, 467-470.	0.5	12
14	Localization of deformation and prognostibility of rock failure. Journal of Mining Science, 2014, 50, 43-49.	0.6	10
15	Microstructure of the elements of a superconducting Alloy Nb-Ti cable. Russian Metallurgy (Metally), 2013, 2013, 229-234.	0.5	9
16	Phenomenology of wave processes in a localized plastic flow. Physics of the Solid State, 2001, 43, 1483-1487.	0.6	8
17	On the localization of plastic flow under compression of NaCl and KCl crystals. Physics of the Solid State, 2009, 51, 1142-1148.	0.6	7
18	Acoustic parameters as the material formability criteria. AIP Conference Proceedings, 2016, , .	0.4	7

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19	The Effect of Preliminary Thermomechanical Processing on the Kinetics of Localized Plasticity Autowaves in Trip Steel. Metals, 2020, 10, 1494.	2.3	6
20	On inhomogeneous straining in compressed sylvinite. Technical Physics Letters, 2010, 36, 507-510.	0.7	5
21	Relationship between burgers vectors of dislocations and plastic strain localization patterns in compression-strained alkali halide crystals. Technical Physics Letters, 2011, 37, 750-753.	0.7	5
22	Regularities in localization of plastic flow upon electrolytic hydrogenation of an iron bcc-alloy. Technical Physics Letters, 2014, 40, 211-214.	0.7	5
23	Velocity and attenuation of ultrasound waves under cyclic loading of low-carbon steel. AIP Conference Proceedings, 2016, , .	0.4	4
24	Autowave Mechanics of Plastic Flow. Springer Tracts in Mechanical Engineering, 2021, , 245-274.	0.3	4
25	On Evolution of Plasticity Zone in the Vicinity of Crack Tip. International Journal of Fracture, 2000, 101, 35-40.	2.2	3
26	Study of the structural inhomogeneity of bimetal layers at the yield plateau stage. AIP Conference Proceedings, 2019, , .	0.4	3
27	Structural-Phase State, Mechanical Properties, Acoustic and Magnetic Characteristics in the Sustainable Deformation Localization Zones of Power Equipment Made of Structural and Heat Resistant Steels. Metals, 2021, 11, 1638.	2.3	3
28	Kinetics of periodic processes during plastic flow. Physics of the Solid State, 1999, 41, 1112-1114.	0.6	2
29	Investigation of the Fine Structure Localized Plastic Deformation Zone of Superconducting Cable Components. Applied Mechanics and Materials, 0, 682, 3-8.	0.2	2
30	Ultrasound Velocity Measurements in High-Chromium Steel Under Plastic Deformation. IOP Conference Series: Materials Science and Engineering, 2016, 125, 012007.	0.6	2
31	Investigation of the deformed bimetal microstructure by the AFM method. AIP Conference Proceedings, 2018, , .	0.4	2
32	Ultrasonic and Optical Evaluation of Deformation Stages from the Beginning to Fracture: A Case Study of Low-Carbon Steels. Journal of Nondestructive Evaluation, 2021, 40, 1.	2.4	2
33	Plasticity Autowave Characteristics of Metals and the Periodic Table of Elements. Metals, 2021, 11, 1270.	2.3	2
34	Autowave Criteria of Fracture and Plastic Strain Localization of Zirconium Alloys. Metals, 2022, 12, 95.	2.3	2
35	The distinctive features of plastic deformation localization in polycrystalline aluminum by creep. AIP Conference Proceedings, 2014, , .	0.4	1
36	On the plastic flow localization of martensitic stainless steel saturated with hydrogen. AIP Conference Proceedings, 2016, , .	0.4	1

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37	Titanium and Zirconium Base Alloys in Ultra-Fine Grain State: Mechanical Stability and Failure Behavior. Key Engineering Materials, 2016, 683, 162-167.	0.4	1
38	On the kinetics of mobile Chernovâ€“LÃ¼ders band fronts. AIP Conference Proceedings, 2016, , .	0.4	1
39	Macroscopic criteria for the deformation and fracture of iron based alloys. Frattura Ed Integrita Strutturale, 2017, 11, 293-302.	0.9	1
40	Localized Plastic Flow Autowaves and the Hall-Petch Relation for Al. Key Engineering Materials, 0, 592-593, 271-274.	0.4	0
41	Autowave Features of Plastic Deformation by Ductile Fracture. Key Engineering Materials, 0, 592-593, 664-667.	0.4	0
42	On Technological Uses of Local Strain Patterns of the Commercial Zr-Nb Alloys. Advanced Materials Research, 2014, 1040, 113-118.	0.3	0
43	The effect of hydrogen on the parameters of plastic deformation localization in low carbon steel. , 2014, , .		0
44	Elastic-plastic invariant of localized deformation autowaves. , 2014, , .		0
45	The effect of hydrogen embrittlement on the localized plastic deformation of aluminum alloy. AIP Conference Proceedings, 2015, , .	0.4	0
46	The Effect of Electrolytic Hydrogenation on the Plastic Flow of Aluminum Alloy. Applied Mechanics and Materials, 2015, 756, 59-64.	0.2	0
47	The effect of electrolytic hydrogenation on the localized plastic deformation of high-chromium steel. , 2015, , .		0
48	Study of localized plastic deformation of stainless steel electrically saturated with hydrogen. AIP Conference Proceedings, 2016, , .	0.4	0
49	Study of Plastic Flow of Aluminum Alloy Using Digital Speckle Photography. Key Engineering Materials, 0, 683, 118-124.	0.4	0
50	Heterogeneity of plastic flow of bimetals electrolytically saturated with hydrogen. AIP Conference Proceedings, 2016, , .	0.4	0
51	The Influence of Hydrogen on the Process of Plastic Flow Self-Organization in Ti. Key Engineering Materials, 2016, 685, 601-606.	0.4	0
52	Atomic force microscopy application to carbon steel structure study. AIP Conference Proceedings, 2017, , .	0.4	0
53	Estimation of A516-70 carbon steel fatigue damage on the basis of acoustic nonlinearity. AIP Conference Proceedings, 2017, , .	0.4	0
54	Patterns of the localization of plastic deformation in Hadfield steel single crystals under tension. AIP Conference Proceedings, 2018, , .	0.4	0

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55	Influence of the LÃ¼ders band front on the Rayleigh wave velocity in low-carbon steel. AIP Conference Proceedings, 2018, , .	0.4	0
56	Observation of the seismic wave in marble in laboratory conditions. AIP Conference Proceedings, 2018, , .	0.4	0
57	Study of pearlite using atomic force microscopy. AIP Conference Proceedings, 2018, , .	0.4	0
58	The influence of temperature on the localization parameters of Hadfield steel single crystals under tensile plastic strain. AIP Conference Proceedings, 2019, , .	0.4	0