Bella A Greenberg

List of Publications by Year
in descending order

78 papers	548 citations	759233 12 h-index	794594 19 g-index
79 all docs	79 docs citations	79 times ranked	189 citing authors

#	Article	IF	Citations
1	Splitting of superdislocations in ordered CuAu-type structure. Physica Status Solidi (B): Basic Research, 1970, 42, 459-468.	1.5	53
2	The problem of intermixing of metals possessing no mutual solubility upon explosion welding (Cuâ€"Ta,) Tj ETQq0 0 0 rgBT /Overlock 10	4.4	43
3	Microheterogeneous Structure of Local Melted Zones in the Process of Explosive Welding. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3569-3580.	2.2	26
4	Inhomogeneities of the interface produced by explosive welding. Physics of Metals and Metallography, 2012, 113, 176-189.	1.0	20
5	Layered Metal-intermetallic Composites in Ti-Al System: Strength Under Static and Dynamic Load. AASRI Procedia, 2012, 3, 107-112.	0.6	19
6	Formation of Intermetallic Compounds During Explosive Welding. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 5461-5473.	2.2	17
7	The first observation of dislocation blocking in pure metal without external stress. Crystallography Reports, 2012, 57, 541-548.	0.6	16
8	Nanostructure of Vortex During Explosion Welding. Journal of Nanoscience and Nanotechnology, 2011, 11, 8885-8895.	0.9	15
9	The Effect of Dislocation Dipoles on the Shape of the Nuclear Magnetic Resonance Line. Physica Status Solidi (B): Basic Research, 1966, 17, 673-681.	1.5	14
10	Some aspects of plastic deformation theory with an account for thermally activated dislocation transformations. Physica Status Solidi A, 1976, 38, 653-662.	1.7	14
11	Structure of boundaries in composite materials obtained using explosive loading. Physics of Metals and Metallography, 2013, 114, 947-952.	1.0	14
12	The non-monotonic temperature dependence of the yield stress in TiAl and CuAu alloys. Intermetallics, 2000, 8, 845-853.	3.9	13
13	Formation of vortices during explosion welding (titanium-orthorhombic titanium aluminide). Physics of Metals and Metallography, 2009, 108, 353-364.	1.0	13
14	Deformation of Ordered CuAu Alloy. Physica Status Solidi A, 1971, 6, 323-336.	1.7	11
15	Fragmentation processes during explosion welding (review). Russian Metallurgy (Metally), 2013, 2013, 727-737.	0.5	11
16	Interface relief upon explosion welding: Splashes and waves. Physics of Metals and Metallography, 2015, 116, 367-377.	1.0	11
17	Some features of the formation and destruction of dislocation barriers in intermetallic compounds: I. Theory. Physics of Metals and Metallography, 2006, 102, 61-68.	1.0	10
18	The Processes of Fragmentation, Intermixing and Fusion upon Explosion Welding. AASRI Procedia, 2012, 3, 66-72.	0.6	10

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19	Microstructure of joints Cuâ€“Ta, Cuâ€“Ti, Cuâ€“Cu, produced by means of explosive welding: fractal description of interface relief. Composite Interfaces, 2021, 28, 63-76.	2.3	10
20	On the theory of plastic deformation with an account of dislocation transformations of several types. Physica Status Solidi A, 1978, 45, 403-410.	1.7	9
21	Phenomenological theory of plastic deformation with several types of mobile and immobile dislocations. I. Theory. Physica Status Solidi A, 1978, 47, 731-741.	1.7	9
22	On the Possibility of Describing Lattice Properties of Iridium in Terms of Pseudopotential Theory. Physica Status Solidi (B): Basic Research, 1990, 158, 441-455.	1.5	9
23	New concepts of analyzing plastic deformation of TiAl and Ni3Al intermetallic compounds. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 153, 356-363.	5.6	9
24	Deformation Behavior of Intermetallics: Models and Experiments. Israel Journal of Chemistry, 2007, 47, 415-421.	2.3	9
25	Phenomenological theory of plastic deformation with several types of mobile and immobile dislocations II. An analysis of the features of plastic deformation of ordered alloys with a superstructure L12. Physica Status Solidi A, 1978, 49, 517-528.	1.7	8
26	Explosive welding: Mixing of metals without mutual solubility (iron-silver). Physics of Metals and Metallography, 2012, 113, 1041-1051.	1.0	8
27	Comparative characterisation of interfaces for two- and multi-layered Cu-Ta explosively welded composites. Composite Interfaces, 2020, 27, 705-715.	2.3	8
28	Incomplete cross-slip of superdislocation in ordered Cu3Au-type alloy. Physica Status Solidi A, 1973, 18, K129-K133.	1.7	7
29	Self-blocking of dislocations: A new concept. Crystallography Reports, 2009, 54, 974-984.	0.6	7
30	Reconstruction of Dislocation Potential Relief by Means of Self-Blocking Effect. Crystallography Reports, 2010, 55, 1025-1030.	0.6	7
31	Electron-microscopic examination of the transition zone of aluminum-tantalum bimetallic joints (explosion welding). Physics of Metals and Metallography, 2014, 115, 380-391.	1.0	7
32	Evolution of interface relief during explosive welding: Transitions from splashes to waves. Bulletin of the Russian Academy of Sciences: Physics, 2015, 79, 1118-1121.	0.6	7
33	Phase transformations in Ni₃Al, Ti₃Al and Ti₂AlNb intermetallics under shock-wave loading. European Physical Journal Special Topics, 2003, 110, 923-928.	0.2	6
34	Some features of the formation and destruction of dislocation barriers in intermetallic compounds: II. Observation of blocked superidislocations upon heating without stress. Physics of Metals and Metallography, 2006, 102, 69-75.	1.0	6
35	Synthesis and properties of Ti-Al laminated composites with an intermetallic layer. Russian Metallurgy (Metally), 2011, 2011, 356-360.	0.5	6
36	Structure of the welding zone between titanium and orthorhombic titanium aluminide for explosion welding: II. Local melting zones. Russian Metallurgy (Metally), 2011, 2011, 1016-1025.	0.5	6

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37	Self-blocking of dislocations in intermetallic compound Ni3Ge: Cubic slip. Physics of Metals and Metallography, 2011, 111, 385-394.	1.0	5
38	Structure of the welding zone between titanium and orthorhombic titanium aluminide for explosion welding: I. Interface. Russian Metallurgy (Metally), 2011, 2011, 1008-1015.	0.5	5
39	Detection of (Câ€‰+â€‰A)-type dislocation self-blocking in magnesium. Russian Physics Journal, 2012, 54, 906-913.	0.4	5
40	Anomalies in Deformation Behaviour of TiAl Intermetallic. Progress in Physics of Metals, 2000, 1, 9-48.	1.5	5
41	On the possibility of the self-blocking of dislocations in various materials. Physics of Metals and Metallography, 2009, 108, 88-99.	1.0	4
42	Risk zones for coke drum shell produced by explosive welding. Journal of Materials Processing Technology, 2015, 215, 79-86.	6.3	4
43	Strange behavior of dislocations of a certain type: Self-locking. Russian Metallurgy (Metally), 2016, 2016, 266-285.	0.5	4
44	Quasi-wave shape of an interface upon explosion welding (copperâ€“tantalum, copperâ€“titanium). Bulletin of the Russian Academy of Sciences: Physics, 2016, 80, 1273-1278.	0.6	4
45	Phenomenological theory of low temperature creep with account of several types of dislocation transformations. Physica Status Solidi A, 1981, 66, 293-302.	1.7	3
46	Self-blocking of dislocations in the intermetallic compound Ni3Ge: reconstruction of a two-valley potential relief. Physics of Metals and Metallography, 2011, 112, 203-212.	1.0	3
47	Interface after explosion welding: Fractal analysis. Russian Metallurgy (Metally), 2015, 2015, 816-825.	0.5	3
48	Locking of Dislocations without the Application of an External Stress: Experiment and Theory. Progress in Physics of Metals, 2013, 14, 107-227.	1.5	3
49	Blocking and self-locking of superdislocations in intermetallics. WIT Transactions on Engineering Sciences, 2007, , .	0.0	3
50	Effect of Segregation at Dislocations on the Shape of the NMR line. Physica Status Solidi (B): Basic Research, 1967, 20, K103.	1.5	2
51	Calculation of activation energy for dislocation movement. Physica Status Solidi (B): Basic Research, 1971, 47, 305-312.	1.5	2
52	Dislocation barriers in ordered Cu3Au-type alloy. Physica Status Solidi A, 1973, 20, K53-K56.	1.7	2
53	Analysis of the features of the plastic behaviour of superstructure Ll2 under Low temperature creep. Physica Status Solidi A, 1981, 66, 439-444.	1.7	2
54	Some features of the formation and destruction of dislocation barriers in intermetallic compounds: III. Thermoactivated straightening of dislocations along a preferred direction in Ni3Al. Physics of Metals and Metallography, 2007, 104, 514-521.	1.0	2

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55	Deformation behavior and dislocation structure of CuAu ordered alloy. Gold Bulletin, 2008, 41, 326-335.	2.7	2
56	Some features of the formation and destruction of dislocation barriers in intermetallic compounds: IV. Thermoactivated straightening of dislocations along a preferred direction in TiAl. Physics of Metals and Metallography, 2008, 105, 491-499.	1.0	2
57	Is it possible for dislocations to self-lock after high-pressure torsion?. Physics of Metals and Metallography, 2017, 118, 802-809.	1.0	2
58	Microstructures upon explosion welding and processes which prevent joining of materials. Letters on Materials, 2018, 8, 252-257.	0.7	2
59	Study of broadening of the NMR line due to dislocations by the monte carlo method. Physica Status Solidi (B): Basic Research, 1973, 60, 357-365.	1.5	1
60	Glissile-sessile transformation superdislocations in ordered Cu3Au-type alloy. Physica Status Solidi A, 1975, 29, K133-K135.	1.7	1
61	Some features of the formation and destruction of dislocation barriers in intermetallic compounds: V. Single-valley and multivalley potential relief for dislocations. Physics of Metals and Metallography, 2008, 105, 553-563.	1.0	1
62	Structure of the transition zone and its influence on the strength of copper-tantalum joint (Explosion welding). Russian Metallurgy (Metally), 2012, 2012, 898-905.	0.5	1
63	Microstructural Analysis of the Ni3Ge Intermetallic Compound after High Pressure Torsion. Russian Metallurgy (Metally), 2018, 2018, 929-934.	0.5	1
64	Influence of the Crystallization Conditions on the Microstructure and Mechanical Properties of TiAl- and Ti3Al-Based Alloys. , 0, , 265-270.		1
65	Shock-Wave Synthesis of Intermetallic Compounds Ti3Al, TiAl Analysis of Heterophase Structure Formation. European Physical Journal Special Topics, 1997, 07, C3-7-C3-12.	0.2	1
66	Phase Transformation in Orthorhombic Ti2AlNb Alloys Under Severe Deformation. Materials Research Society Symposia Proceedings, 2004, 842, 381.	0.1	0
67	Description of creep with allowance for dislocation multiplication and transformations. Physics of Metals and Metallography, 2006, 101, 231-241.	1.0	0
68	Fine structure of interphase boundaries in hard alloys of the chromium carbideâ€"titanium system. Russian Journal of Non-Ferrous Metals, 2016, 57, 504-508.	0.6	0
69	Wave formation during explosive welding: the relaxation of a nonequilibrium structure. Physics of Metals and Metallography, 2016, 117, 1219-1225.	1.0	0
70	Multilayer Mgâ€"Ti-based composites produced by explosion welding: Risk zones. Inorganic Materials: Applied Research, 2016, 7, 402-408.	0.5	0
71	Role of crushing-induced fragmentation in the consolidation of quartz ceramic and glass powders during high-pressure torsion. Russian Metallurgy (Metally), 2017, 2017, 821-830.	0.5	0
72	Processes of Self-Organization and Evolution of the Microstructure of Metals and Intermetallic Compounds under a Strong External Action. Physics of Metals and Metallography, 2018, 119, 1338-1341.	1.0	0

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73	Microstructural Evolution in Ceramics and Glasses during High Pressure Torsion. Russian Metallurgy (Metally), 2018, 2018, 935-940.	0.5	0
74	Interfacial surface relief in explosive welding of homogeneous materials. Welding International, 2018, 32, 714-718.	0.7	0
75	Processes of the Self-Organization and Evolution of Metallic and Intermetallic Microstructures under Strong External Influences. Bulletin of the Russian Academy of Sciences: Physics, 2019, 83, 1203-1209.	0.6	0
76	Siliconâ€“Oxygen Quartz Tetrahedra and Consolidation Processes during High-Pressure Torsion. Russian Metallurgy (Metally), 2021, 2021, 449-453.	0.5	0
77	An Analysis of Heterophase Structures of Ti3Al, TiAl, Ni3Al Intermetallics Synthesized by the Method of the Spherical Shock Wave Action. , 2000, , 109-114.		0
78	Phase transformations in Ni₃Al, Ti₃Al and Ti₂AlNb intermetallics under shock-wave loading. European Physical Journal Special Topics, 2003, 110, 923-928.	0.2	0