

Vladimir Popov

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96
papers

812
citations

16
h-index

22
g-index

103
ext. papers

892
ext. citations

1.2
avg, IF

4.34
L-index

#	Paper	IF	Citations
96	Thermal stability of nanocrystalline Nb produced by severe plastic deformation. <i>Physics of Metals and Metallography</i> , 2006 , 101, 52-57	1.2	39
95	Thermal stability of nanocrystalline structure in niobium processed by high pressure torsion at cryogenic temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 1491-1496	5.3	36
94	Effect of the degree of deformation on the structure and thermal stability of nanocrystalline niobium produced by high-pressure torsion. <i>Physics of Metals and Metallography</i> , 2007 , 103, 407-413	1.2	36
93	Nanostructuring Nb by various techniques of severe plastic deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 539, 22-29	5.3	32
92	Nanostructuring of Nb by high-pressure torsion in liquid nitrogen and the thermal stability of the structure obtained. <i>Physics of Metals and Metallography</i> , 2012 , 113, 295-301	1.2	26
91	Effect of deformation and annealing on texture parameters of composite Cu/Nb wire. <i>Scripta Materialia</i> , 2004 , 51, 727-731	5.6	26
90	Mössbauer spectroscopy of interfaces in metals. <i>Physics of Metals and Metallography</i> , 2012 , 113, 1257-1289	1.2	24
89	Analysis of the solubility of carbides, nitrides, and carbonitrides in steels using methods of computer thermodynamics: IV. Solubility of carbides, nitrides, and carbonitrides in the Fe-Nb-C, Fe-Nb-N, and Fe-Nb-C-N systems. <i>Physics of Metals and Metallography</i> , 2010 , 110, 52-61	1.2	24
88	Analysis of the solubility of carbides, nitrides, and carbonitrides in steels using methods of computer thermodynamics: III. Solubility of carbides, nitrides, and carbonitrides in the Fe-Ti-C, Fe-Ti-N, and Fe-Ti-C-N systems. <i>Physics of Metals and Metallography</i> , 2009 , 108, 484-495	1.2	23
87	Model of grain-boundary diffusion with allowance for near-boundary layers of equilibrium composition. <i>Physics of Metals and Metallography</i> , 2006 , 102, 453-461	1.2	23
86	Mössbauer investigation of Sn diffusion and segregation in grain boundaries of polycrystalline Nb. <i>Journal of Phase Equilibria and Diffusion</i> , 2005 , 26, 510-515	1	21
85	Thermodynamic simulation of the Fe-V-Nb-C-N system using the CALPHAD method. <i>Physics of Metals and Metallography</i> , 2011 , 111, 495-502	1.2	18
84	Structure and properties of grain boundaries in submicrocrystalline molybdenum prepared by high-pressure torsion. <i>Physics of Metals and Metallography</i> , 2010 , 109, 556-562	1.2	18
83	Thermodynamic modeling of carbonitride formation in steels with V and Ti. <i>Physics of Metals and Metallography</i> , 2012 , 113, 974-981	1.2	17
82	Effect of annealing and doping with Zr on the structure and properties of in situ Cu/Nb composite wire. <i>Scripta Materialia</i> , 2002 , 46, 193-198	5.6	17
81	Thermal stability of nickel structure obtained by high-pressure torsion in liquid nitrogen. <i>Physics of Metals and Metallography</i> , 2014 , 115, 682-691	1.2	16
80	Evolution of Ni structure at dynamic channel-angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 585, 281-291	5.3	16

79	Emission Mössbauer spectroscopy of grain boundaries in ultrafine-grained W and Mo produced by severe plastic deformation. <i>Physics of Metals and Metallography</i> , 2017 , 118, 354-361	1.2	16
78	Mössbauer emission spectroscopy of grain boundaries in poly- and nanocrystalline niobium. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2007 , 71, 1244-1248	0.4	16
77	Simulation of VC precipitate evolution in steels with consideration for the formation of new nuclei. <i>Philosophical Magazine</i> , 2005 , 85, 2449-2467	1.6	16
76	Thermodynamic simulation of the formation of carbonitrides in steels with Nb and Ti. <i>Physics of Metals and Metallography</i> , 2012 , 113, 687-695	1.2	15
75	Thermodynamic calculations of carbonitride formation in low-alloy low-carbon steels containing V, Nb, and Ti. <i>Physics of Metals and Metallography</i> , 2014 , 115, 69-76	1.2	13
74	Computer simulation of the diffusion interaction between carbonitride precipitates and austenitic matrix with allowance for the possibility of variation of their composition. <i>Physics of Metals and Metallography</i> , 2006 , 102, 18-28	1.2	13
73	Simulation of dissolution and coarsening of MnS precipitates in Fe-Si. <i>Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties</i> , 2002 , 82, 17-27		13
72	Prediction of the austenite-grain size of microalloyed steels based on the simulation of the evolution of carbonitride precipitates. <i>Physics of Metals and Metallography</i> , 2015 , 116, 1127-1134	1.2	12
71	Structure, thermal stability, and state of grain boundaries of copper subjected to high-pressure torsion at cryogenic temperatures. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2014 , 78, 908-916	0.4	12
70	Emission Mössbauer spectroscopy of grain boundaries of polycrystalline copper. <i>Physics of Metals and Metallography</i> , 2012 , 113, 883-887	1.2	12
69	Evolution of the structure of tin bronze under dynamic channel-angular pressing. <i>Physics of Metals and Metallography</i> , 2017 , 118, 864-871	1.2	11
68	Prediction of the Phase Composition of High-Entropy Alloys Based on CrNbTiVZr Using the Calphad Method. <i>Physics of Metals and Metallography</i> , 2019 , 120, 378-386	1.2	11
67	Microstructural Evolution and Phase Formation in 2nd-Generation Refractory-Based High Entropy Alloys. <i>Materials</i> , 2018 , 11,	3.5	11
66	Simulation of evolution of precipitates of two carbonitride phases in Nb- and Ti-containing steels during isothermal annealing. <i>Physics of Metals and Metallography</i> , 2013 , 114, 741-751	1.2	11
65	Determination of the parameters of grain-boundary diffusion and segregation of Co in W using an improved model of grain-boundary diffusion. <i>Physics of Metals and Metallography</i> , 2011 , 112, 256-266	1.2	11
64	Calculations of the influence of alloying elements (Al, Cr, Mn, Ni, Si) on the Solubility of carbonitrides in low-carbon low-alloy steels. <i>Physics of Metals and Metallography</i> , 2016 , 117, 1226-1236	1.2	11
63	Simulation of precipitate ensemble evolution in steels with V and Nb. <i>Physics of Metals and Metallography</i> , 2015 , 116, 356-366	1.2	10
62	Structure, Thermal Stability and Properties of Grain Boundaries of Submicrocrystalline Mo Obtained by Severe Plastic Deformation. <i>Defect and Diffusion Forum</i> , 2012 , 326-328, 674-681	0.7	10

61	Mössbauer spectroscopy of grain boundaries in submicrocrystalline molybdenum obtained by severe plastic deformation. <i>Physics of Metals and Metallography</i> , 2008 , 106, 490-494	1.2	9
60	Wide-aperture detector of terahertz radiation based on GaAs/InGaAs transistor structure with large-area slit grating gate. <i>Technical Physics Letters</i> , 2010 , 36, 365-368	0.7	8
59	Mössbauer spectroscopy of grain boundaries in ultrafine-grained materials produced by severe plastic deformation. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2017 , 81, 860-864	0.4	7
58	Emission Mössbauer spectroscopy of grain boundaries in polycrystalline molybdenum. <i>Physics of Metals and Metallography</i> , 2015 , 116, 378-384	1.2	7
57	Interface Structure and Magnetoresistance Studies of [Co/C]n Superlattices by Means of NMR and TEM. <i>Solid State Phenomena</i> , 2014 , 215, 358-363	0.4	7
56	Morphology of crystallites and magnetic structure of non-collinear Fe/Cr multilayers. <i>Journal of Magnetism and Magnetic Materials</i> , 1999 , 203, 181-183	2.8	7
55	Investigation of interfaces of multilayer Co/Cu structures using the method of nuclear magnetic resonance. <i>Physics of Metals and Metallography</i> , 2015 , 116, 136-140	1.2	6
54	Statistical theory of diffusion in concentrated bcc and fcc alloys and concentration dependencies of diffusion coefficients in bcc alloys FeCu, FeMn, FeNi, and FeCr. <i>Journal of Experimental and Theoretical Physics</i> , 2016 , 123, 59-85	1	6
53	Evolution of the Structure of Cu1% Sn Bronze under High Pressure Torsion and Subsequent Annealing. <i>Physics of Metals and Metallography</i> , 2018 , 119, 358-367	1.2	6
52	Nanostructuring of pure metals by severe plastic deformation at cryogenic temperatures. <i>IOP Conference Series: Materials Science and Engineering</i> , 2014 , 63, 012096	0.4	6
51	Influence of the Interface State on the Magnetoresistive Properties of Co/Cu Superlattices. <i>Physics of Metals and Metallography</i> , 2018 , 119, 309-315	1.2	5
50	Grain-boundary diffusion of cobalt in submicrocrystalline molybdenum obtained by high-pressure torsion. <i>Physics of Metals and Metallography</i> , 2017 , 118, 1091-1096	1.2	5
49	Structure of nickel-copper alloys subjected to high-pressure torsion to saturation stage. <i>Physics of Metals and Metallography</i> , 2017 , 118, 1073-1080	1.2	5
48	Nanostructuring of Ni by Various Modes of Severe Plastic Deformation. <i>Defect and Diffusion Forum</i> , 2014 , 354, 109-119	0.7	5
47	Determination of Grain Boundary Diffusion Parameters Based on Combined Analysis of Radiotracer Technique and Mössbauer Spectroscopy Data. <i>Defect and Diffusion Forum</i> , 2012 , 323-325, 155-160	0.7	5
46	Numerical simulation of carbide and nitride precipitate evolution in steels. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2005 , 36, 477-481	0.9	5
45	Study of the structure of interlayer boundaries in [Co/Cu]10 superlattices by methods of NMR and X-ray reflectometry. <i>Physics of Metals and Metallography</i> , 2016 , 117, 1192-1197	1.2	4
44	Simulation of the Effect of Hot Deformation on the Austenite Grain Size of Low-Alloyed Steels with Carbonitride Hardening. <i>Physics of Metals and Metallography</i> , 2018 , 119, 551-557	1.2	4

43	Evolution of misorientation spectrum of grain boundaries of submicrocrystalline molybdenum upon deformation under conditions of grain-boundary diffusion of nickel. <i>Physics of Metals and Metallography</i> , 2013 , 114, 1045-1052	1.2	4
42	Investigation of nanostructures based on Ni ₈₀ Fe ₂₀ /(Ni ₈₀ Fe ₂₀) ₂₀ Mn ₈₀ bilayers with a unidirectional exchange anisotropy. <i>Physics of Metals and Metallography</i> , 2012 , 113, 749-755	1.2	4
41	Structure-phase composition and properties of mechanically alloyed high-nitrogen powder steels. <i>Russian Journal of Non-Ferrous Metals</i> , 2012 , 53, 321-329	0.8	4
40	Simulation of precipitates evolution in multiphase multicomponent systems with consideration of nucleation. <i>Philosophical Magazine</i> , 2016 , 96, 3632-3653	1.6	3
39	Nuclear Resonance Reflectivity of Dy/Gd Superlattices. <i>JETP Letters</i> , 2018 , 107, 196-199	1.2	3
38	Emission Mössbauer spectroscopy of nanocrystalline gold produced by the method of gas condensation. <i>Physics of Metals and Metallography</i> , 2013 , 114, 68-72	1.2	3
37	On the Processing Pathway Dependence of Microstructure Evolution During Severe Plastic Deformation: Nickel as a Case Example. <i>Advanced Engineering Materials</i> , 2015 , 17, 1842-1852	3.5	3
36	Effect of thermomagnetic treatment on the magnetic properties of permalloy/manganese bilayer films. <i>Physics of Metals and Metallography</i> , 2011 , 112, 350-355	1.2	3
35	The Structure of Nb Obtained by Severe Plastic Deformation and its Thermal Stability. <i>Materials Science Forum</i> , 2010 , 667-669, 409-414	0.4	3
34	Rational controlled rolling on a 5000 pipe-blank mill at reduced temperature. <i>Steel in Translation</i> , 2009 , 39, 906-911	0.4	3
33	Dissolution of carbides and nitrides during austenitizing of steel. <i>Metal Science and Heat Treatment</i> , 1991 , 33, 480-483	0.6	3
32	Effect of alkaline and rare-earth metals on the composition of sulfide inclusions and properties of cast steel. <i>Metal Science and Heat Treatment</i> , 1988 , 30, 931-935	0.6	3
31	Researching nitrogen solubility in nitrogen-containing austenitic steels at melting and recrystallization by CALPHAD method. <i>Voprosy Materialovedeniya</i> , 2019 , 53-66	0.3	3
30	Simulation of Precipitate Evolution in Fe-Based Alloys. <i>Advanced Structured Materials</i> , 2013 , 215-281	0.6	3
29	Nuclear Magnetic Resonance and X-ray Reflectometry of Co/Cu Superlattices. <i>Applied Magnetic Resonance</i> , 2019 , 50, 415-423	0.8	2
28	Influence of the Initial Treatment on the Structure of Hafnium Bronze upon High-Speed Pressing. <i>Physics of Metals and Metallography</i> , 2020 , 121, 452-459	1.2	2
27	Effect of Annealing on Nanocrystalline Structure of Nb ₃ Sn Diffusion Layers in Composites with Internal Tin Sources. <i>Defect and Diffusion Forum</i> , 2010 , 297-301, 126-131	0.7	2
26	Mössbauer spectroscopy of interphase boundaries of Co/CoO bilayers. <i>Physics of Metals and Metallography</i> , 2006 , 101, 17-26	1.2	2

25	Structure and Energy of <110> Symmetric Tilt Boundaries in Polycrystalline Tungsten. <i>Physics of Metals and Metallography</i> , 2020 , 121, 797-803	1.2	2
24	Evolution of Ni Structure under ECAP and DCAP and Further Annealing. <i>Materials Science Forum</i> , 2016 , 879, 1507-1512	0.4	2
23	Simulation of the Evolution of Carbonitride Particles of Complex Composition upon Hot Deformation of a Low-Alloyed Steel. <i>Physics of Metals and Metallography</i> , 2018 , 119, 770-779	1.2	2
22	Grain Boundary Diffusion of ⁵⁷ Co in Nickel. <i>Journal of Phase Equilibria and Diffusion</i> , 2020 , 41, 132-137	1	1
21	Formation of ordered NiFeMn antiferromagnetic phase in permalloy/manganese bilayers in the course of thermomagnetic treatment. <i>Physics of Metals and Metallography</i> , 2014 , 115, 335-341	1.2	1
20	Experimental investigations and thermodynamic calculations of the structural and phase composition in the TiBiTi system. <i>Russian Journal of Non-Ferrous Metals</i> , 2017 , 58, 552-559	0.8	1
19	Diffusion mechanism of exchange bias formation in permalloy-manganese nanostructures at thermo-magnetic treatment. <i>Journal of Nanoscience and Nanotechnology</i> , 2012 , 12, 7562-5	1.3	1
18	Study of YSZ films deposited using electron-beam sputtering onto a nickel alloy with a perfect cube texture. <i>Physics of Metals and Metallography</i> , 2008 , 106, 590-596	1.2	1
17	Thermodynamic calculations of the solubility of carbonitrides in the austenite of constructional steels. <i>Metal Science and Heat Treatment</i> , 1989 , 31, 840-848	0.6	1
16	Effect of Hf Doping of Commercially Pure Copper on Evolution of its Microstructure under High Pressure Torsion. <i>Solid State Phenomena</i> , 2020 , 299, 424-429	0.4	1
15	Computer Simulation for the Prediction of Phase Composition and Structure of Low-Alloyed Steels with Carbonitride Hardening. <i>Physics of Metals and Metallography</i> , 2018 , 119, 1333-1337	1.2	1
14	Grain-Boundary Diffusion of ⁵⁷ Co in Ultrafine Nickel after Severe Plastic Deformation. <i>Physics of Metals and Metallography</i> , 2021 , 122, 976-980	1.2	0
13	Structure and Energy of Symmetric Tilt Boundaries with the <110> Axis in Ni and the Energy of Formation of Vacancies in Grain Boundaries. <i>Physics of Metals and Metallography</i> , 2021 , 122, 665-672	1.2	0
12	Mechanism of Grain-Boundary Diffusion and Grain-Boundary Segregation of ⁵⁷ Co in Polycrystalline Nb. <i>Physics of Metals and Metallography</i> , 2021 , 122, 891-895	1.2	0
11	Emission Mössbauer Spectroscopy of Grain Boundaries in Ni ₈₄ Cu Alloy. <i>Crystallography Reports</i> , 2020 , 65, 357-360	0.6	
10	Effect of severe plastic deformation on the structure and properties of Ni-Cu alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 194, 012014	0.4	
9	Study of the possibility of using Ni-Fe-Mn alloys as material for pinning layers in spin valves. <i>Inorganic Materials: Applied Research</i> , 2013 , 4, 369-375	0.6	
8	Mössbauer Spectroscopy of Internal Interfaces in Metals. <i>Defect and Diffusion Forum</i> , 2013 , 333, 157-173	0.7	

- 7 Modern Models of Grain Boundary Diffusion. *Defect and Diffusion Forum*, **2011**, 312-315, 1116-1125 0.7
- 6 Magnetic properties, crystallography and interface structure of Co/CoO bilayers. *Journal of Magnetism and Magnetic Materials*, **2007**, 310, 2222-2224 2.8
- 5 Effect of the fraction and size of dispersed carbides on grain size. *Metal Science and Heat Treatment*, **1989**, 31, 559-565 0.6
- 4 Diffusion interaction of vanadium carbide with powdered steels. *Soviet Powder Metallurgy and Metal Ceramics (English Translation of Poroshkovaya Metallurgiya)*, **1989**, 28, 863-867
- 3 Phase composition, microstructure, and mechanical properties of steel 20GTL with different titanium concentrations. *Metal Science and Heat Treatment*, **1981**, 23, 434-437 0.6
- 2 NMR studies of interlayer boundaries in Co/Cu superlattices. *Journal of Physics: Conference Series*, **2019**, 1389, 012159 0.3
- 1 Top and Bottom Spin Valves With Ni-Fe-Mn Antiferromagnetic Layer. *EPJ Web of Conferences*, **2018**, 185, 01006 0.3