

# Vladimir Popov

## List of Publications by Year in descending order

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103  
papers

984  
citations

471061

17  
h-index

642321

23  
g-index

103  
all docs

103  
docs citations

103  
times ranked

466  
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	0.3	47
2	Thermal stability of nanocrystalline Nb produced by severe plastic deformation. <i>Physics of Metals and Metallography</i> , 2006, 101, 52-57.	0.3	43
3	Thermal stability of nanocrystalline structure in niobium processed by high pressure torsion at cryogenic temperatures. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 1491-1496.	2.6	43
4	Nanostructuring Nb by various techniques of severe plastic deformation. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 539, 22-29.	2.6	43
5	Mössbauer spectroscopy of interfaces in metals. <i>Physics of Metals and Metallography</i> , 2012, 113, 1257-1289.	0.3	35
6	Effect of deformation and annealing on texture parameters of composite Cu-Nb wire. <i>Scripta Materialia</i> , 2004, 51, 727-731.	2.6	31
7	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.	0.3	31
8	Thermal stability of nickel structure obtained by high-pressure torsion in liquid nitrogen. <i>Physics of Metals and Metallography</i> , 2014, 115, 682-691.	0.3	26
9	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.	0.3	25
10	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.	0.3	25
11	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.	0.3	24
12	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.	0.5	22
13	Microstructural Evolution and Phase Formation in 2nd-Generation Refractory-Based High Entropy Alloys. <i>Materials</i> , 2018, 11, 175.	1.3	21
14	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.	0.3	20
15	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.	0.3	19
16	Thermodynamic modeling of carbonitride formation in steels with V and Ti. <i>Physics of Metals and Metallography</i> , 2012, 113, 974-981.	0.3	19
17	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.	2.6	18
18	Evolution of Ni structure at dynamic channel-angular pressing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 585, 281-291.	2.6	18

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19	Structure, thermal stability, and state of grain boundaries of copper subjected to high-pressure torsion at cryogenic temperatures. Bulletin of the Russian Academy of Sciences: Physics, 2014, 78, 908-916.	0.1	18
20	Emission Mössbauer spectroscopy of grain boundaries in ultrafine-grained W and Mo produced by severe plastic deformation. Physics of Metals and Metallography, 2017, 118, 354-361.	0.3	18
21	Simulation of VC precipitate evolution in steels with consideration for the formation of new nuclei. Philosophical Magazine, 2005, 85, 2449-2467.	0.7	17
22	Mössbauer emission spectroscopy of grain boundaries in poly- and nanocrystalline niobium. Bulletin of the Russian Academy of Sciences: Physics, 2007, 71, 1244-1248.	0.1	17
23	Simulation of dissolution and coarsening of MnS precipitates in Fe-Si. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2002, 82, 17-27.	0.8	16
24	Thermodynamic simulation of the formation of carbonitrides in steels with Nb and Ti. Physics of Metals and Metallography, 2012, 113, 687-695.	0.3	16
25	Computer simulation of the diffusion interaction between carbonitride precipitates and austenitic matrix with allowance for the possibility of variation of their composition. Physics of Metals and Metallography, 2006, 102, 18-28.	0.3	15
26	Prediction of the Phase Composition of High-Entropy Alloys Based on Cr-Nb-Ti-V-Zr Using the Calphad Method. Physics of Metals and Metallography, 2019, 120, 378-386.	0.3	15
27	Emission Mössbauer spectroscopy of grain boundaries of polycrystalline copper. Physics of Metals and Metallography, 2012, 113, 883-887.	0.3	14
28	Prediction of the austenite-grain size of microalloyed steels based on the simulation of the evolution of carbonitride precipitates. Physics of Metals and Metallography, 2015, 116, 1127-1134.	0.3	14
29	Calculations of the influence of alloying elements (Al, Cr, Mn, Ni, Si) on the Solubility of carbonitrides in low-carbon low-alloy steels. Physics of Metals and Metallography, 2016, 117, 1226-1236.	0.3	14
30	Determination of the parameters of grain-boundary diffusion and segregation of Co in W using an improved model of grain-boundary diffusion. Physics of Metals and Metallography, 2011, 112, 256-266.	0.3	13
31	Simulation of evolution of precipitates of two carbonitride phases in Nb- and Ti-containing steels during isothermal annealing. Physics of Metals and Metallography, 2013, 114, 741-751.	0.3	13
32	Thermodynamic calculations of carbonitride formation in low-alloy low-carbon steels containing V, Nb, and Ti. Physics of Metals and Metallography, 2014, 115, 69-76.	0.3	13
33	Mössbauer spectroscopy of grain boundaries in submicrocrystalline molybdenum obtained by severe plastic deformation. Physics of Metals and Metallography, 2008, 106, 490-494.	0.3	11
34	Wide-aperture detector of terahertz radiation based on GaAs/InGaAs transistor structure with large-area slit grating gate. Technical Physics Letters, 2010, 36, 365-368.	0.2	11
35	Simulation of precipitate ensemble evolution in steels with V and Nb. Physics of Metals and Metallography, 2015, 116, 356-366.	0.3	11
36	Evolution of the structure of tin bronze under dynamic channel-angular pressing. Physics of Metals and Metallography, 2017, 118, 864-871.	0.3	11

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37	Structure, Thermal Stability and Properties of Grain Boundaries of Submicrocrystalline Mo Obtained by Severe Plastic Deformation. Defect and Diffusion Forum, 0, 326-328, 674-681.	0.4	10
38	Morphology of crystallites and magnetic structure of non-collinear Fe/Cr multilayers. Journal of Magnetism and Magnetic Materials, 1999, 203, 181-183.	1.0	8
39	Interface Structure and Magnetoresistance Studies of [Co/C] Superlattices by Means of NMR and TEM. Solid State Phenomena, 2014, 215, 358-363.	0.3	8
40	Emission Mössbauer spectroscopy of grain boundaries in polycrystalline molybdenum. Physics of Metals and Metallography, 2015, 116, 378-384.	0.3	8
41	Evolution of the Structure of Cu-1% Sn Bronze under High Pressure Torsion and Subsequent Annealing. Physics of Metals and Metallography, 2018, 119, 358-367.	0.3	8
42	Nanostructuring of pure metals by severe plastic deformation at cryogenic temperatures. IOP Conference Series: Materials Science and Engineering, 2014, 63, 012096.	0.3	7
43	Investigation of interfaces of multilayer Co/Cu structures using the method of nuclear magnetic resonance. Physics of Metals and Metallography, 2015, 116, 136-140.	0.3	7
44	Statistical theory of diffusion in concentrated bcc and fcc alloys and concentration dependencies of diffusion coefficients in bcc alloys FeCu, FeMn, FeNi, and FeCr. Journal of Experimental and Theoretical Physics, 2016, 123, 59-85.	0.2	7
45	Structure of nickel-copper alloys subjected to high-pressure torsion to saturation stage. Physics of Metals and Metallography, 2017, 118, 1073-1080.	0.3	7
46	Mössbauer spectroscopy of grain boundaries in ultrafine-grained materials produced by severe plastic deformation. Bulletin of the Russian Academy of Sciences: Physics, 2017, 81, 860-864.	0.1	7
47	Determination of Grain Boundary Diffusion Parameters Based on Combined Analysis of Radiotracer Technique and Mössbauer Spectroscopy Data. Defect and Diffusion Forum, 0, 323-325, 155-160.	0.4	6
48	Nanostructuring of Ni by Various Modes of Severe Plastic Deformation. Defect and Diffusion Forum, 0, 354, 109-119.	0.4	6
49	Grain-boundary diffusion of cobalt in submicrocrystalline molybdenum obtained by high-pressure torsion. Physics of Metals and Metallography, 2017, 118, 1091-1096.	0.3	6
50	Simulation of the Effect of Hot Deformation on the Austenite Grain Size of Low-Alloyed Steels with Carbonitride Hardening. Physics of Metals and Metallography, 2018, 119, 551-557.	0.3	6
51	Structure and Energy of $\Sigma 110$ Symmetric Tilt Boundaries in Polycrystalline Tungsten. Physics of Metals and Metallography, 2020, 121, 797-803.	0.3	6
52	Grain-Boundary Diffusion of $^{57}\text{Co}$ in Ultrafine Nickel after Severe Plastic Deformation. Physics of Metals and Metallography, 2021, 122, 976-980.	0.3	6
53	Numerical simulation of carbide and nitride precipitate evolution in steels. Materialwissenschaft Und Werkstofftechnik, 2005, 36, 477-481.	0.5	5
54	Simulation of precipitates evolution in multiphase multicomponent systems with consideration of nucleation. Philosophical Magazine, 2016, 96, 3632-3653.	0.7	5

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55	Study of the structure of interlayer boundaries in [Co/Cu] <sub>10</sub> superlattices by methods of NMR and X-ray reflectometry. <i>Physics of Metals and Metallography</i> , 2016, 117, 1192-1197.	0.3	5
56	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.	0.3	5
57	Influence of the Interface State on the Magnetoresistive Properties of Co/Cu Superlattices. <i>Physics of Metals and Metallography</i> , 2018, 119, 309-315.	0.3	5
58	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.	0.3	5
59	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.	0.2	4
60	The Structure of Nb Obtained by Severe Plastic Deformation and its Thermal Stability. <i>Materials Science Forum</i> , 0, 667-669, 409-414.	0.3	4
61	Investigation of nanostructures based on Ni <sub>80</sub> Fe <sub>20</sub> /(Ni <sub>80</sub> Fe <sub>20</sub> ) <sub>20</sub> Mn <sub>80</sub> bilayers with a unidirectional exchange anisotropy. <i>Physics of Metals and Metallography</i> , 2012, 113, 749-755.	0.3	4
62	Structure-phase composition and properties of mechanically alloyed high-nitrogen powder steels. <i>Russian Journal of Non-Ferrous Metals</i> , 2012, 53, 321-329.	0.2	4
63	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.	0.3	4
64	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.	1.6	4
65	Grain Boundary Diffusion of <sup>57</sup> Co in Nickel. <i>Journal of Phase Equilibria and Diffusion</i> , 2020, 41, 132-137.	0.5	4
66	Dissolution of carbides and nitrides during austenitizing of steel. <i>Metal Science and Heat Treatment</i> , 1991, 33, 480-483.	0.2	3
67	Rational controlled rolling on a 5000 pipe-blank mill at reduced temperature. <i>Steel in Translation</i> , 2009, 39, 906-911.	0.1	3
68	Effect of thermomagnetic treatment on the magnetic properties of permalloy/manganese bilayer films. <i>Physics of Metals and Metallography</i> , 2011, 112, 350-355.	0.3	3
69	Emission Mössbauer spectroscopy of nanocrystalline gold produced by the method of gas condensation. <i>Physics of Metals and Metallography</i> , 2013, 114, 68-72.	0.3	3
70	Evolution of Ni Structure under ECAP and DCAP and Further Annealing. <i>Materials Science Forum</i> , 2016, 879, 1507-1512.	0.3	3
71	Nuclear Resonance Reflectivity of Dy/Gd Superlattices. <i>JETP Letters</i> , 2018, 107, 196-199.	0.4	3
72	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.	0.3	3

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73	Simulation of Precipitate Evolution in Fe-Based Alloys. <i>Advanced Structured Materials</i> , 2013, , 215-281.	0.3	3
74	Researching nitrogen solubility in nitrogen-containing austenitic steels at melting and recrystallization by CALPHAD method. <i>Voprosy Materialovedeniya</i> , 2019, , 53-66.	0.0	3
75	Thermodynamic calculations of the solubility of carbonitrides in the austenite of constructional steels. <i>Metal Science and Heat Treatment</i> , 1989, 31, 840-848.	0.2	2
76	Mössbauer spectroscopy of interphase boundaries of Co/CoO bilayers. <i>Physics of Metals and Metallography</i> , 2006, 101, 17-26.	0.3	2
77	Effect of Annealing on Nanocrystalline Structure of Nb <sub>3</sub> Sn Diffusion Layers in Composites with Internal Tin Sources. <i>Defect and Diffusion Forum</i> , 2010, 297-301, 126-131.	0.4	2
78	Nuclear Magnetic Resonance and X-ray Reflectometry of Co/Cu Superlattices. <i>Applied Magnetic Resonance</i> , 2019, 50, 415-423.	0.6	2
79	Mechanism of Grain-Boundary Diffusion and Grain-Boundary Segregation of <sup>57</sup> Co in Polycrystalline Nb. <i>Physics of Metals and Metallography</i> , 2021, 122, 891-895.	0.3	2
80	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.	0.3	1
81	Diffusion Mechanism of Exchange Bias Formation in Permalloy-Manganese Nanostructures at Thermo-Magnetic Treatment. <i>Journal of Nanoscience and Nanotechnology</i> , 2012, 12, 7562-7565.	0.9	1
82	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.	0.3	1
83	Experimental investigations and thermodynamic calculations of the structural and phase composition in the Ti- <sup>48</sup> Ti-C system. <i>Russian Journal of Non-Ferrous Metals</i> , 2017, 58, 552-559.	0.2	1
84	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.	0.3	1
85	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.	0.3	1
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.	0.5	1
87	EFFECT OF HEAT TREATMENT ON THE STATE OF INTERLAYER INTERFACES AND MAGNETORESISTIVE PROPERTIES OF Co <sub>90</sub> Fe <sub>10</sub> /Cu SUPERLATTICES. <i>Diagnostics Resource and Mechanics of Materials and Structures</i> , 2018, , 33-41.	0.1	1
88	EVOLUTION OF THE STRUCTURE OF TIN BRONZE AND COPPER AFTER DYNAMIC COMPRESSION BY THE KOLSKY METHOD USING A SPLIT HOPKINSON PRESSURE BAR. <i>Diagnostics Resource and Mechanics of Materials and Structures</i> , 2019, , 41-51.	0.1	1
89	Phase composition, microstructure, and mechanical properties of steel 20GTL with different titanium concentrations. <i>Metal Science and Heat Treatment</i> , 1981, 23, 434-437.	0.2	0
90	Effect of the fraction and size of dispersed carbides on grain size. <i>Metal Science and Heat Treatment</i> , 1989, 31, 559-565.	0.2	0

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91	Diffusion interaction of vanadium carbide with powdered steels. Soviet Powder Metallurgy and Metal Ceramics (English Translation of Poroshkovaya Metallurgiya), 1989, 28, 863-867.	0.1	0
92	Magnetic properties, crystallography and interface structure of Co/CoO bilayers. Journal of Magnetism and Magnetic Materials, 2007, 310, 2222-2224.	1.0	0
93	Modern Models of Grain Boundary Diffusion. Defect and Diffusion Forum, 0, 312-315, 1116-1125.	0.4	0
94	Study of the possibility of using Ni-Fe-Mn alloys as material for pinning layers in spin valves. Inorganic Materials: Applied Research, 2013, 4, 369-375.	0.1	0
95	Mössbauer Spectroscopy of Internal Interfaces in Metals. Defect and Diffusion Forum, 0, 333, 157-173.	0.4	0
96	Effect of severe plastic deformation on the structure and properties of Ni-Cu alloys. IOP Conference Series: Materials Science and Engineering, 2017, 194, 012014.	0.3	0
97	Top and Bottom Spin Valves With Ni-Fe-Mn Antiferromagnetic Layer. EPJ Web of Conferences, 2018, 185, 01006.	0.1	0
98	NMR studies of interlayer boundaries in Co/Cu superlattices. Journal of Physics: Conference Series, 2019, 1389, 012159.	0.3	0
99	Emission Mössbauer Spectroscopy of Grain Boundaries in Ni-34%Cu Alloy. Crystallography Reports, 2020, 65, 357-360.	0.1	0
100	Terahertz Response of Tightly Concatenated Two Dimensional InGaAs Field-Effect Transistors Integrated on a Single Chip. , 2017, , .		0
101	SPECIFIC FEATURES OF THE GRAIN STRUCTURE IN Ni-Cu ALLOYS AT THE SATURATION STAGE UNDER HIGH-PRESSURE TORSION. Diagnostics Resource and Mechanics of Materials and Structures, 2019, , 26-37.	0.1	0
102	Specific features of grain structure evolution in HPT-nanostructured tin bronze under subsequent heating. Diagnostics Resource and Mechanics of Materials and Structures, 2019, , 37-47.	0.1	0
103	Evolution of the structure of annealed hafnium bronze nanostructured by high pressure torsion. Diagnostics Resource and Mechanics of Materials and Structures, 2021, , 38-50.	0.1	0