Alexander G Popov

List of Publications by Year
in descending order

87	799	567144 15	642610 23
papers	citations	h-index	g-index

89	89	89	495
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controllable nanocrystallization in amorphous Nd9Fe85B6 via combined application of severe plastic deformation and thermal annealing. Applied Physics Letters, 2007, 91, .	1.5	57
2	Structure evolution and changes in magnetic properties of severe plastic deformed Nd(Pr)â€“Feâ€“B alloys during annealing. Journal of Alloys and Compounds, 1998, 281, 69-71.	2.8	35
3	Nanocrystallization and magnetic properties of amorphous Nd9Fe85B6 subjected to high-pressure torsion deformation upon annealing. Journal of Applied Physics, 2008, 104, .	1.1	35
4	Investigation of phase composition and remanence enhancement in rapidly quenched Nd9(Fe, Co)85B6 alloys. Journal of Alloys and Compounds, 1996, 237, 101-107.	2.8	29
5	The structure and magnetic properties of rapidly quenched and annealed multi-phase nanocrystalline Nd9Fe91â^'xBx ribbons. Journal of Alloys and Compounds, 1996, 245, 119-124.	2.8	29
6	Correlation of microstructure and magnetic properties in Sm(CobalFe0.1Cu0.1Zr0.033)6.93 magnets solution-treated at different temperatures. Rare Metals, 2019, 38, 20-28.	3.6	27
7	High coercive states in Prâ€“Feâ€“Bâ€“Cu alloy processed by equal channel angular pressing. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 1399-1401.	1.0	24
8	Nanocrystallization Induced by Severe Plastic Deformation of Amorphous Alloys. Journal of Metastable and Nanocrystalline Materials, 2004, 22, 21-26.	0.1	24
9	Effect of High-Pressure Torsion Deformation and Subsequent Annealing on Structure and Magnetic Properties of Overquenched Melt-Spun Nd9Fe85B6 Alloy. Journal of Iron and Steel Research International, 2006, 13, 160-165.	1.4	22
10	High-pressure-torsion deformation of melt-spun Nd9Fe85B6 alloy. Physics of Metals and Metallography, 2007, 104, 238-247.	0.3	22
11	Discovery of metastable tetragonal disordered phase upon phase transitions in the equiatomic nanostructured FePd alloy. Acta Materialia, 2013, 61, 2560-2570.	3.8	21
12	Metastable states in R2Fe14B-based alloys processed by severe plastic deformation. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 166-168.	1.0	20
13	The use of severe deformations for preparing bulk nanocrystalline materials from amorphous alloys. Doklady Physics, 2004, 49, 519-521.	0.2	20
14	Critical current density of thin YBCO films on buffered sapphire substrates. Superconductor Science and Technology, 2000, 13, 209-214.	1.8	18
15	Effect of diffusion annealing on the hysteretic properties of sintered Nd-Fe-B magnets. Physics of Metals and Metallography, 2011, 111, 471-478.	0.3	16
16	Martensitic transformations and magnetic-field-induced strains in Ni50Mn50â^'x Gax alloys. Physics of Metals and Metallography, 2006, 102, 140-148.	0.3	15
17	Severe plastic deformation and hydrogenation of the titanium aluminides. Journal of Alloys and Compounds, 2011, 509, 9307-9311.	2.8	15
18	Preparation of sintered Nd-Fe-B magnets by pressless process. Physics of Metals and Metallography, 2012, 113, 331-340.	0.3	13

#	Article	IF	Citations
19	MÃ¶ssbauer study of fine structure features of equiatomic FePd alloy after severe plastic deformation and ordering annealing. Journal of Alloys and Compounds, 2014, 583, 191-197.	2.8	13
20	Alignment of magnetic uniaxial particles in a magnetic field: Simulation. Journal of Magnetism and Magnetic Materials, 2014, 365, 64-69.	1.0	13
21	Coercivity kinetics upon step annealing of sintered Sm(Co0.88â€“Fe Cu0.09Zr0.03)7 magnets. Journal of Rare Earths, 2019, 37, 1059-1065.	2.5	13
22	Magnetic properties of melt-spun ribbons (Sm1â€“Zr)(Fe0.92Ti0.08)10 with ThMn12 structure and their hydrides. Journal of Rare Earths, 2019, 37, 1066-1071.	2.5	13
23	Ab initio study of the magnetic properties of possible phases in binary Fe-Pd alloys. Journal of Magnetism and Magnetic Materials, 2020, 499, 166266.	1.0	12
24	Method of formation of a high coercivity state in PrFeBCu alloy. Journal of Magnetism and Magnetic Materials, 1996, 157-158, 33-34.	1.0	11
25	Optimization of the Magnetic Properties of FePd Alloys by Severe Plastic Deformation. Advanced Engineering Materials, 2010, 12, 708-713.	1.6	11
26	Development of high-coercivity state in high-energy and high-temperature Sm-Co-Fe-Cu-Zr magnets upon step cooling. Journal of Alloys and Compounds, 2020, 820, 153103.	2.8	10
27	The superconductivity of the Sb-doped Bi-Pb-Sr-Ca-Cu-O compounds. Superconductor Science and Technology, 1992, 5, 654-657.	1.8	9
28	Effect of the structural state of the FePd equiatomic alloy on the temperature dependence of the initial magnetic susceptibility and the curie temperature. Physics of Metals and Metallography, 2009, 107, 359-369.	0.3	9
29	Preparation of high-power permanent magnets from platelike Nd-Fe-B alloys. Physics of Metals and Metallography, 2010, 109, 238-246.	0.3	9
30	Effect of addition of esters of fatty acids on the microstructure and properties of sintered Ndâ€“Feâ€“B magnets produced by PLP. Journal of Magnetism and Magnetic Materials, 2015, 386, 134-140.	1.0	9
31	High-power (Nd, Dy)â€“(Fe, Co)â€“B magnets with a low temperature coefficient of induction. Physics of Metals and Metallography, 2017, 118, 935-945.	0.3	9
32	Peculiar Kinetics of Coercivity of Sintered Sm(Co_{0.78}Fe_{0.10}Cu_{0.10}Zr_{0.02})₇ Magnet Upon Slow Cooling. IEEE Transactions on Magnetics, 2018, 54, 1-7.	1.2	9
33	Formation of a high-coercive state in sintered Nd-Fe-B-Ga magnets by thermocycling. Physics of Metals and Metallography, 2006, 101, 538-546.	0.3	8
34	Effect of additions of zinc stearate on the properties of sintered Nd-Fe-B magnets. Physics of Metals and Metallography, 2013, 114, 285-294.	0.3	8
35	Enhanced method of magnetic powder alignment for production of PLP Nd-Fe-B magnets. Journal of Magnetism and Magnetic Materials, 2017, 428, 424-430.	1.0	8
36	Structure and Magnetic Properties of Heat-Resistant Sm(Co0.796â^'xFe0.177CuxZr0.027)6.63 Permanent Magnets with High Coercivity. Jom, 2019, 71, 559-566.	0.9	8

#	Article	IF	Citations
37	Critical current density in highly biaxially-oriented YBCO films: Can we control J/sub c/(77 K) and optimize up to more than 10/sup 6/ amp/cm/sup 2/?. IEEE Transactions on Applied Superconductivity, 1999, 9, 1535-1538.	1.1	7
38	Thermomagnetic and MÃ¶ssbauer studies of structural transformations caused in the amorphous Nd9Fe85B5 alloy by severe plastic deformation and annealing. Physics of Metals and Metallography, 2010, 109, 505-513.	0.3	7
39	Ferroelastic domains and phases in ferromagnetic nanostructured FePd alloy. Physics of Metals and Metallography, 2010, 110, 449-463.	0.3	7
40	Effect of cobalt doping on thermoelastic martensitic transformations and physical properties of magnetic shape memory alloys Ni50 â^' x Co x Mn29Ga21. Physics of the Solid State, 2013, 55, 2413-2421.	0.2	7
41	Effect of gallium alloying on the structure, the phase composition, and the thermoelastic martensitic transformations in ternary Niâ€“Mnâ€“Ga alloys. Technical Physics, 2016, 61, 547-553.	0.2	7
42	Structure and Properties of Sm â€“ Co â€“ Fe â€“ Cu â€“ Zr Magnets for High-Temperature Applications. Metal Science and Heat Treatment, 2018, 60, 498-503.	0.2	7
43	Magnetics Hysteresis Properties and Microstructure of High-Energy (Nd,Dy)â€“Feâ€“B Magnets with Low Oxygen Content. Physics of Metals and Metallography, 2021, 122, 1173-1182.	0.3	7
44	Crystal structure and physical properties of magnetic shape memory alloys Ni50 â^' x Cu x Mn29Ga21. Physics of the Solid State, 2013, 55, 2471-2478.	0.2	6
45	Microstructure and Properties of Nd â€“ Fe â€“ B Alloys Produced by Strip Casting and of Permanent Magnets Fabricated from Them. Metal Science and Heat Treatment, 2015, 56, 585-590.	0.2	6
46	Effect of short-range atomic order on macroscopic magnetic properties of equiatomic FePd alloy. Philosophical Magazine, 2019, 99, 2198-2219.	0.7	6
47	Abnormal temperature dependence of coercivity of Smâ€“Coâ€“Feâ€“Cuâ€“Zr alloys: history and current state. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1883-E1885.	1.0	5
48	Decomposition process in a FeAuPd alloy nanostructured by severe plastic deformation. Journal of Materials Science, 2008, 43, 7293-7298.	1.7	5
49	Crystal Structure and Magnetic Properties of Novel Compound PrFe₈Ga₃C. Solid State Phenomena, 2009, 152-153, 75-78.	0.3	5
50	Highly coercive sintered magnets from (Nd, Dy) â€“ Fe â€“ B alloys fabricated by the method of strip casting. Metal Science and Heat Treatment, 2013, 55, 78-82.	0.2	5
51	Magnetic properties and structure of Fe50Pd50-Ni alloys (xÂ=Â4 and 8) in the as-deformed and annealed state. Journal of Alloys and Compounds, 2017, 701, 892-900.	2.8	5
52	Investigating aspects of the formation of structure in FePd alloy upon ordering. Bulletin of the Russian Academy of Sciences: Physics, 2017, 81, 822-826.	0.1	5
53	MÃ¶ssbauer study of structural inhomogeneities formed upon the FCCâ€“L10 transformation in equiatomic FePd alloy from different initial states. Philosophical Magazine, 2018, 98, 2380-2396.	0.7	5
54	Magnetic properties of Sm2+Î±Fe17N powders prepared from bulk and strip-cast alloys. Journal of Magnetism and Magnetic Materials, 2021, 518, 167416.	1.0	5

#	Article	IF	Citations
55	Observation of proximity effect in YBCO/Au bilayer films by microwave surface resistance measurements. Physica B: Condensed Matter, 2000, 284-288, 915-916.	1.3	4
56	Martensitic transformations Î³-É› (Î±) and the shape-memory effect in aging high-strength manganese austenitic steels. Physics of Metals and Metallography, 2008, 106, 630-640.	0.3	4
57	Phase Transformations in Ferromagnetic Nanostructured FePd Alloy under Severe Plastic Deformation and Annealing. Solid State Phenomena, 0, 168-169, 392-395.	0.3	4
58	Pressless process in route of obtaining sintered Ndâ€“Feâ€“B magnets. Journal of Magnetism and Magnetic Materials, 2015, 383, 226-231.	1.0	4
59	Microstructure and magnetic properties of R-Fe-B-Cu (R = Pr, Nd) alloys deformed by equal-channel angular pressing and subsequent hot upsetting. Physics of Metals and Metallography, 2007, 103, 51-57.	0.3	3
60	Use of mechanoactivation for obtaining hydrides of titanium aluminides. Physics of Metals and Metallography, 2008, 105, 460-470.	0.3	3
61	Effect of severe plastic deformation and ultrarapid quenching on the properties of magnetic shape memory alloys near the Ni2MnGa composition. Bulletin of the Russian Academy of Sciences: Physics, 2009, 73, 948-951.	0.1	3
62	Disordering and Ordering in a Severely Deformed FePd Alloy. Solid State Phenomena, 0, 172-174, 703-708.	0.3	3
63	Effect of additions of phosphorous, boron, and silicon on the structure and magnetic properties of the melt-spun FePd ribbons. Journal of Magnetism and Magnetic Materials, 2019, 481, 212-220.	1.0	3
64	Magnetic Hysteresis Properties and Microstructure of High-Coercivity (Nd,Dy)â€“Feâ€“B Magnets with Dy less than 10 wt % and Low Oxygen. Physics of Metals and Metallography, 2022, 123, 145-154.	0.3	3
65	Phase composition and magnetic properties of nanocrystalline SmFe11 â^' x Ga x C1.25 (2 â‰¤ x â‰¤ 5) alloys. Physics of Metals and Metallography, 2010, 110, 13-23.	0.3	2
66	Phase composition and magnetic properties of phases in Sm2(Fe1 â^' x â^' y Mn x Si y)17 alloys (with 0 â‰¤ x â‰¤) Tj ETQq0 0 0 rgBT /O	0.3	2
67	On the effect of cobalt doping on thermoelastic martensitic transformations in ferromagnetic Heusler Ni50 â^' x Co x Mn29Ga21 magnetically controlled shape memory alloys. Technical Physics Letters, 2013, 39, 737-740.	0.2	2
68	Structure and Properties of R â€“ (Fe, Co) â€“ B (R = Nd, Dy, Ho) Permanent Magnets with Low Temperature Coefficient of Induction. Metal Science and Heat Treatment, 2018, 60, 528-533.	0.2	2
69	Embedded atom potential for Smâ€“Co compounds obtained by force-matching. Journal of Magnetism and Magnetic Materials, 2019, 490, 165468.	1.0	2
70	Investigation of Magnetic Hysteresis Properties of (Sm0.8Zr0.2)(Fe0.72Co0.24Ti0.04)10â€“12 Melt-Spun Ribbons. Metal Science and Heat Treatment, 2021, 62, 566-571.	0.2	2
71	Enhancement of the Coercive Force of Sm2Fe17N3 Powders via Surfactant Added Mechanical Milling. Physics of Metals and Metallography, 2021, 122, 547-558.	0.3	2
72	High Tc superconductivity and crystal structure of Pb Sr Y,Ca Cu O system. Physica C: Superconductivity and Its Applications, 1989, 162-164, 534-535.	0.6	1

#	Article	IF	Citations
73	Vortex pinning anisotropy in perfect YBCO films studied by transport current measurements. Physica B: Condensed Matter, 2000, 284-288, 831-832.	1.3	1
74	Equal-Channel Angular Pressing, Microstructure and Hysteresis Properties of Ultrafine - Grained Pr₂₀Fe_{73.5}B₅Cu_{1.5} - Alloy. Materials Science Forum, 2001, 373-376, 265-268.	0.3	1
75	Effect of gallium on the crystal structure and magnetic properties of PrFe11 â^' x Ga x C y compounds. Physics of Metals and Metallography, 2009, 108, 441-448.	0.3	1
76	Determination of Texture Degree of NdFeB-Magnets by Means of Neutron Diffraction. Solid State Phenomena, 2010, 168-169, 161-164.	0.3	1
77	Thermally unstable hydrides of titanium aluminide Ti3Al. Physics of Metals and Metallography, 2011, 111, 353-360.	0.3	1
78	Thermoelastic martensitic transformations in ternary Ni50Mn50â€“z Ga z alloys. Technical Physics Letters, 2016, 42, 75-78.	0.2	1
79	Development of high-coercivity state in melt-spun Fe41Pd41B8Si6P4 ribbons. Rare Metals, 2020, 39, 76-83.	3.6	1
80	Control of the Properties of Sm â€“ Fe â€“ Co â€“ Cu â€“ Zr Magnets by the Method of Mixtures of Powders. Metal Science and Heat Treatment, 2021, 62, 560-565.	0.2	1
81	Superconducting NbN Film Treatments. , 1984, , 571-577.		1
82	Superconductivity and crystal structure of high T/sub c/ Bi-Ca-Sr-Cu-O compounds. IEEE Transactions on Magnetics, 1989, 25, 2282-2284.	1.2	0
83	X-ray emission spectra and phase-structure transitions of Pb2Sr2YCu3O8+Î´ (Î´ = 01.9). Physica C: Superconductivity and Its Applications, 1995, 252, 313-318.	0.6	0
84	Structure and magnetic properties of iron-rich Sm-Fe-(V,W)-Ga alloys. Physics of Metals and Metallography, 2009, 108, 341-346.	0.3	0
85	Spin Reorientation Transition in Nanocrystalline (Pr,Sm)Fe₈Ga₃C Alloys. Solid State Phenomena, 2010, 168-169, 126-129.	0.3	0
86	Model of formation of texture in A Nd â€“ Fe â€“ B alloy under severe plastic deformation. Metal Science and Heat Treatment, 2013, 55, 73-77.	0.2	0
87	Effect of solid solution treatment and nitrogenation on magnetic properties of Sm2+Î±Fe17N x powders. Journal of Physics: Conference Series, 2019, 1389, 012125.	0.3	0