Vitaly P Pilyugin

List of Publications by Citations

64 papers	587 citations	13 h-index	21 g-index
67 ext. papers	654 ext. citations	1.4 avg, IF	3.43 L-index

#	Paper	IF	Citations
64	Influence of the relaxation processes on the structure formation in pure metals and alloys under high-pressure torsion. *Acta Materialia*, **2007**, 55, 6039-6050	8.4	82
63	Thermal stability of nanocrystalline structure in niobium processed by high pressure torsion at cryogenic temperatures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 1491-1496	5.3	36
62	Effect of the degree of deformation on the structure and thermal stability of nanocrystalline niobium produced by high-pressure torsion. *Physics of Metals and Metallography*, **2007**, 103, 407-413	1.2	36
61	Evolution of the structure and hardness of nickel upon cold and low-temperature deformation under pressure. *Physics of Metals and Metallography*, **2008**, 105, 409-419	1.2	29
60	Nanostructurization of Nb by high-pressure torsion in liquid nitrogen and the thermal stability of the structure obtained. *Physics of Metals and Metallography*, **2012**, 113, 295-301	1.2	26
59	Deformation-induced crystallization in amorphous Al85Ni10La5 alloy. *Journal of Alloys and Compounds*, **2010**, 493, 683-691	5.7	17
58	Thermal stability of nickel structure obtained by high-pressure torsion in liquid nitrogen. *Physics of Metals and Metallography*, **2014**, 115, 682-691	1.2	16
57	Deformation-induced dissolution of the intermetallics Ni3Ti and Ni3Al in austenitic steels at cryogenic temperatures. *Philosophical Magazine*, **2016**, 96, 1724-1742	1.6	16
56	Severe plastic deformation and hydrogenation of the titanium aluminides. *Journal of Alloys and Compounds*, **2011**, 509, 9307-9311	5.7	15
55	Evolution of the structure of V95 aluminum alloy upon high-pressure torsion. *Physics of Metals and Metallography*, **2011**, 111, 630-638	1.2	15
54	Optical and magneto-optical properties of nanostructured yttrium iron garnet. *Physics of the Solid State*, **2009**, 51, 1836-1842	0.8	14
53	Structure evolution of pure iron upon low-temperature deformation under high pressure. *Physics of Metals and Metallography*, **2010**, 110, 564-573	1.2	14
52	Effect of contact stresses on the phase composition, strength, and tribological properties of nanocrystalline structures formed in steels and alloys under sliding friction. *Metal Science and Heat Treatment*, **2008**, 50, 583-592	0.6	14
51	Structure and hardness of molybdenum upon deformation under pressure at room and cryogenic temperatures. *International Journal of Refractory Metals and Hard Materials*, **2014**, 43, 59-63	4.1	13
50	Structure and mechanical properties of aging Al-Li-Cu-Zr-Sc-Ag alloy after severe plastic deformation by high-pressure torsion. *Physics of Metals and Metallography*, **2015**, 116, 346-355	1.2	12
49	Dynamic aging in an Fe$_3$Al alloy upon megaplastic deformation. Effect of the temperature and deformation rate. *Physics of Metals and Metallography*, **2016**, 117, 805-816	1.2	12
48	Variations in martensitic transformation parameters due to grains evolution during post-deformation heating of Ti-50.2 at.% Ni alloy amorphized by HPT. *Thermochimica Acta*, **2016**, 627-629, 20-30	2.9	12

47	Effect of temperature of HPT deformation and the initial orientation on the structural evolution in single-crystal niobium. *Physics of Metals and Metallography*, **2016**, 117, 336-347	1.2	12
46	Thermal diffusivity of submicro- and nanocrystalline niobium, titanium, and zirconium at high temperatures. *High Temperature*, **2013**, 51, 482-485	0.8	11
45	Plastic Deformation of Polycrystalline Iridium at Room Temperature. *Platinum Metals Review*, **2009**, 53, 138-146		11
44	Effect of storage on the stability of the grained structure and phase transformations in the nanocrystalline alloy 1450 doped with Sc and Mg. *Physics of Metals and Metallography*, **2012**, 113, 867-877	1.2	10
43	Effect of severe plastic deformation on the formation of the nanocrystalline structure and the aging of the multicomponent aluminum-lithium alloy with small additions of Sc and Mg. *Physics of Metals and Metallography*, **2011**, 111, 72-79	1.2	10
42	Formation of the nanocrystalline structure in the Ti50Ni25Cu25 shape-memory alloy under severe thermomechanical treatment. *Physics of Metals and Metallography*, **2011**, 112, 603-612	1.2	10
41	Martensitic transitions in nanocrystalline metastable materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 503, 114-117	5.3	10
40	The formation, structure, and properties of the AuCo alloys produced by severe plastic deformation under pressure. *Physics of Metals and Metallography*, **2016**, 117, 135-142	1.2	10
39	Phase and structural transformations in the aluminum amts alloy upon severe plastic deformation using various techniques. *Physics of Metals and Metallography*, **2012**, 113, 170-175	1.2	8
38	Mechanical alloying of AlFe alloys using severe deformation by high-pressure torsion. *Physics of Metals and Metallography*, **2015**, 116, 942-950	1.2	8
37	Optimal deformation and ion irradiation modes for production of a uniform submicrograin structure in molybdenum. *High Pressure Research*, **2015**, 35, 300-309	1.6	8
36	The phase formation in titanium upon deformation under pressure. *Physics of Metals and Metallography*, **2010**, 109, 30-38	1.2	8
35	Effect of annealing on the structure and properties of AlLiCuZrScAg alloy subjected to severe plastic deformation. *Physics of Metals and Metallography*, **2015**, 116, 932-941	1.2	6
34	Nanostructuring of pure metals by severe plastic deformation at cryogenic temperatures. *IOP Conference Series: Materials Science and Engineering*, **2014**, 63, 012096	0.4	6
33	Evolution of the structure of an titanium single crystal during high-pressure torsion. *Technical Physics*, **2015**, 60, 1005-1013	0.5	6
32	Accommodation stresses and structural-phase transitions in Fe-Ni alloys upon compression in Bridgman anvils. *Physics of Metals and Metallography*, **2009**, 108, 475-483	1.2	6
31	Specific features of the local atomic structure of a Fe-Si alloy in the area of the phase diagram. *Physics of the Solid State*, **2009**, 51, 1236-1242	0.8	6
30	Influence of high-pressure deformation and annealing on the structure and properties of a bulk MgB2 superconductor. *Physics of Metals and Metallography*, **2016**, 117, 772-782	1.2	5

29	Thermal diffusivity of submicro- and nanocrystalline Zr–2.5% Nb and Zr–10% Nb alloys at high temperatures. *High Temperature*, **2016**, 54, 294-296	0.8	5
28	Structure of an AMts aluminum alloy after high-pressure torsion in liquid nitrogen. *Physics of Metals and Metallography*, **2013**, 114, 667-671	1.2	5
27	Structural transformations in single-crystalline titanium under high-pressure cold and cryogenic deformation. *Physics of Metals and Metallography*, **2015**, 116, 1203-1212	1.2	5
26	Structure of aging Al–Li–Cu–Zr–Sc–Ag alloy after severe plastic deformation and long-term storage. *Physics of Metals and Metallography*, **2015**, 116, 1108-1115	1.2	4
25	Amorphization of Titanium Nickelide by means of Shear under Pressure and Crystallization at the Subsequent Heating. *Materials Science Forum*, **2013**, 738-739, 525-529	0.4	4
24	Effect of plastic deformation on disordering and ordering processes in the intermetallic compound Ti3Al. *Physics of Metals and Metallography*, **2006**, 102, 611-618	1.2	4
23	Effect of deformation with Bridgman anvils on the structure, hardness, and critical current of a massive MgB2-based sample. *Physics of Metals and Metallography*, **2015**, 116, 475-481	1.2	3
22	Effect of severe plastic deformation on the structure and crystal-lattice distortions in the Ni3(Al,X) (X = Ti, Nb) intermetallic compound. *Physics of Metals and Metallography*, **2015**, 116, 501-508	1.2	3
21	Effect of plastic deformation on the electrophysical properties and structure of YBa2Cu3O y ceramics subjected to low-temperature treatment. *Physics of Metals and Metallography*, **2015**, 116, 1213-1220	1.2	3
20	The Structure of Nb Obtained by Severe Plastic Deformation and its Thermal Stability. *Materials Science Forum*, **2010**, 667-669, 409-414	0.4	3
19	Structural state of Ni-Mn solid solutions in a wide range of concentrations based on the data of scattering and absorption of X-rays. *Physics of Metals and Metallography*, **2009**, 107, 179-184	1.2	3
18	Structural transformations in the deuterium-containing intermetallic compound (Ti3Al)D1.2 induced by high-pressure torsion. *Physics of Metals and Metallography*, **2009**, 107, 594-600	1.2	3
17	Effect of a nanosized state on the magnetic properties of Ni3(Al,Fe) and Ni3(Al,Co). *Physics of Metals and Metallography*, **2014**, 115, 243-247	1.2	2
16	Is it possible for dislocations to self-lock after high-pressure torsion?. *Physics of Metals and Metallography*, **2017**, 118, 802-809	1.2	2
15	Effect of severe plastic deformation on the electronic properties of the Cu72Au24Ag4 alloy. *Physics of the Solid State*, **2010**, 52, 12-17	0.8	2
14	Evolution of the Microstructure of Polycrystalline Magnesium at Mega Plastic Deformation in Bridgeman Anvils. *Russian Physics Journal*, **2016**, 59, 412-421	0.7	1
13	On the Possibility of Formation and Properties of Copper–Silver Solid Solutions Under Severe Plastic Deformation. *Russian Physics Journal*, **2016**, 58, 1339-1346	0.7	1
12	Structure and Properties of TiNi Alloy Subjected to Severe Plastic Deformation and Subsequent Annealing. *Materials Science Forum*, **2013**, 738-739, 518-524	0.4	1

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11	Effect of water intercalation on the structure and electrophysical properties of YBa2Cu3O6.9. *Physics of Metals and Metallography*, **2016**, 117, 870-875	1.2	1
10	Microstructural Analysis of the Ni3Ge Intermetallic Compound after High Pressure Torsion. *Russian Metallurgy (Metally)*, **2018**, 2018, 929-934	0.5	1
9	Model of formation of texture in A Nd Fe B alloy under severe plastic deformation. *Metal Science and Heat Treatment*, **2013**, 55, 73-77	0.6	
8	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	
7	Effect of preliminary deformation of austenite in an iron-nickel alloy on the martensitic transformation upon cooling. *Physics of Metals and Metallography*, **2012**, 113, 672-680	1.2	
6	The Influence of Nanocrystalline Structure of Iron on Phase Transformations under Pressure. *Materials Science Forum*, **2013**, 738-739, 108-112	0.4	
5	Nanocrystalline Ni-Mn solid solutions: New materials with competing exchange interaction. *Journal of Surface Investigation*, **2007**, 1, 359-361	0.5	
4	SiliconOxygen Quartz Tetrahedra and Consolidation Processes during High-Pressure Torsion. *Russian Metallurgy (Metally)*, **2021**, 2021, 449-453	0.5	
3	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	1.2	
2	Microstructural Evolution in Ceramics and Glasses during High Pressure Torsion. *Russian Metallurgy (Metally)*, **2018**, 2018, 935-940	0.5	
1	Martensitic Transformations in Nanocrystalline Fe-Cr-Ni and Fe-Mn Alloys **2006**, 121-126		