Vladimir E Ovcharenko

List of Publications by Year
in descending order

77 papers	527 citations	840776 11 h-index	713466 21 g-index
77 all docs	77 docs citations	77 times ranked	253 citing authors

#	Article	IF	Citations
1	Investigation of Structural Factors that Increase the Mechanical Properties of Surface Layers Modified by Pulsed Electro-Beam Irradiation. Metal Working and Material Science, 2019, 21, 93-107.	0.3	0
2	Computer-aided study of key factors determining high mechanical properties of nanostructured surface layers in metal-ceramic composites. AIP Conference Proceedings, 2017, , .	0.4	1
3	Nanostructuring and Physical Properties of Metal-Ceramic Composites With a Different Content the Ceramic Components. IOP Conference Series: Materials Science and Engineering, 2016, 125, 012008.	0.6	1
4	Modification of Structure and Strength Properties of Permanent Joints Under Laser Beam Welding with Application of Nanopowder Modifiers. IOP Conference Series: Materials Science and Engineering, 2016, 142, 012092.	0.6	0
5	Nanostructured Hardening of Hard Alloys Surface Layers Through Electron Irradiation in Heavy Inert Gas Plasma Conditions. IOP Conference Series: Materials Science and Engineering, 2016, 142, 012093.	0.6	0
6	Metal ceramic alloy structure and surface layer modification during electron-ion-plasma irradiation of its surface. AIP Conference Proceedings, 2016, , .	0.4	0
7	Microstructure and Scratch Resistance of TaC Dense Ceramic Layer on an Iron Matrix. Journal of Materials Engineering and Performance, 2016, 25, 2375-2383.	2.5	2
8	Comparative analysis of different models of interphase boundaries in metal-ceramic composites. AIP Conference Proceedings, 2016, , .	0.4	0
9	Modification of subsurface structure in TiC-(Ni-Cr) cermet composite under pulsed electron-beam irradiation of samples in plasmas of light and heavy inert gases. AIP Conference Proceedings, 2016, , .	0.4	1
10	Nanophase modification of the superficial layer of cast iron during the interaction of the melt with a carbide-forming metal. AIP Conference Proceedings, 2016, , .	0.4	0
11	Effects of Inert Nanoparticles of High-Melting-Point Compositions on Grain Structure and Strength of Ni3Al Intermetallic Compounds. IOP Conference Series: Materials Science and Engineering, 2016, 142, 012083.	0.6	0
12	Effect of TiN nanoparticles on the grain size, wear resistance, and strength of the intermetallic compound Ni3Al. Inorganic Materials, 2016, 52, 729-734.	0.8	4
13	Wear resistance of the surface layers of hard alloys with a multilevel structural phase state. Journal of Surface Investigation, 2016, 10, 718-722.	0.5	3
14	Effect of the microstructure of SHS powders of titanium carbideâ€"nichrome on the properties of detonation coatings. Journal of Surface Investigation, 2016, 10, 1040-1047.	0.5	12
15	Modification of a hard alloy cermet structure upon pulsed electron-ion-plasma irradiation. Inorganic Materials: Applied Research, 2016, 7, 786-790.	0.5	2
16	Microstructure and kinetics study on tantalum carbide coating produced on gray cast iron in situ. Surface and Coatings Technology, 2016, 286, 347-353.	4.8	27
17	Effect of xenon on the structural phase state of the surface layer of cemented carbide under pulsed electron-beam irradiation. AIP Conference Proceedings, 2015, , .	0.4	0
18	Effect of nanostructured composite powders on the structure and strength properties of the high-temperature inconel 718 alloy. Physics of Metals and Metallography, 2015, 116, 1279-1284.	1.0	11

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19	Modifying structure and properties of nickel alloys by nanostructured composite powders. Thermophysics and Aeromechanics, 2015, 22, 127-132.	0.5	17
20	Grain structure and strength of a plastically deformed Ni3Al intermetallic compound. Doklady Physics, 2015, 60, 440-441.	0.7	0
21	Formation of a multigrain structure and its influence on the strength and plasticity of the Ni3Al intermetallic compound. Physics of the Solid State, 2015, 57, 1293-1299.	0.6	7
22	Microstructural and Mechanical Properties of In Situ WC-Fe/Fe Composites. Journal of Materials Engineering and Performance, 2015, 24, 4561-4568.	2.5	17
23	Fabrication, microstructure and abrasive wear characteristics of an in situ tantalum carbide ceramic gradient composite. Ceramics International, 2015, 41, 12950-12957.	4.8	24
24	Structural state scale-dependent physical characteristics and endurance of cermet composite for cutting metal. , 2014, , .		0
25	Bulk nanostructuring intermetallic composite material. , 2014, , .		1
26	Influence of phase interface properties on mechanical characteristics of metal ceramic composites. Physical Mesomechanics, 2014, 17, 282-291.	1.9	22
27	Formation of a multimodal grain structure and its influence on the strength and the ductility of the intermetallic compound Ni3Al. Russian Metallurgy (Metally), 2014, 2014, 299-302.	0.5	1
28	Influence of Features of Interphase Boundaries on Mechanical Properties and Fracture Pattern in Metalâ€“Ceramic Composites. Journal of Materials Science and Technology, 2013, 29, 1025-1034.	10.7	40
29	Influence of surface nanostructure on the life of cermet in metal cutting. Steel in Translation, 2013, 43, 348-350.	0.3	8
30	The Structure and Properties of Hard Metals Irradiated by High-Energy Electron Beam. Advanced Materials Research, 2013, 872, 214-218.	0.3	4
31	Development of a formalism of movable cellular automaton method for numerical modeling of fracture of heterogeneous elastic-plastic materials. Frattura Ed Integrita Strutturale, 2013, 7, 26-59.	0.9	28
32	Modification of the structure and properties of heat-resistant alloys with the help of nanopowders of refractory compounds. , 2012, , .		4
33	The influence of high-energy impacts on the microstructure of synthesized metal ceramics. Technical Physics Letters, 2012, 38, 1000-1003.	0.7	4
34	Evolution of the structure of plasma metal-ceramic coating under pulsed electron-beam treatment. Inorganic Materials: Applied Research, 2012, 3, 210-215.	0.5	4
35	Microstructure and mechanical properties of Ni3Al and Ni3Alâ€“1B alloys fabricated by SHS/HE. Intermetallics, 2011, 19, 137-142.	3.9	52
36	Plasma Sprayed Metal-Ceramic Coatings and Modification of Their Structure with Pulsed Electron Beam Irradiation. Journal of Thermal Spray Technology, 2011, 20, 927-938.	3.1	10

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37	Influence of the structural-phase state on the strength and plasticity of the pressure-synthesized intermetallic compound Ni3Al. Steel in Translation, 2010, 40, 878-880.	0.3	1
38	Microstructure and mechanical properties of Ni3Al fabricated by thermal explosion and hot extrusion. Intermetallics, 2009, 17, 572-577.	3.9	75
39	Surface Modification of TiCâ€“NiCrAl Hard Alloy by Pulsed Electron Beam. IEEE Transactions on Plasma Science, 2009, 37, 1998-2001.	1.3	10
40	Calculation of the temperature field in the surface layer of a cermet with electron-pulsed irradiation. Metal Science and Heat Treatment, 2008, 50, 238-241.	0.6	1
41	Effect of electron pulse irradiation on the microstructure of the surface layer of a cermet. Metal Science and Heat Treatment, 2008, 50, 359-363.	0.6	0
42	High-temperature synthesis of the Ni3Al intermetallic compound under pressure. Russian Journal of Non-Ferrous Metals, 2007, 48, 297-302.	0.6	3
43	Formation of the granular structure in the intermetallic compound Ni3Al in high-temperature synthesis under compression. Combustion, Explosion and Shock Waves, 2006, 42, 302-308.	0.8	6
44	Thermokinetic characteristics of the final stage of the thermal shock of the 3Ni + Al + TiC powder mixture. Combustion, Explosion and Shock Waves, 2005, 41, 64-70.	0.8	7
45	Title is missing!. Combustion, Explosion and Shock Waves, 2002, 38, 430-434.	0.8	5
46	Self-Propagating High-Temperature Synthesis of a Ni3Al Intermetallic Compound under Compression. Combustion, Explosion and Shock Waves, 2002, 38, 670-674.	0.8	5
47	Diffusion parameters in liquid phase sintering of the al-cu system. Science of Sintering, 2002, 34, 203-213.	1.4	2
48	Mathematical Model of Compact Changes in Volume during Liquid-Phase Sintering. I. Journal of Materials Synthesis and Processing, 2001, 9, 25-30.	0.3	0
49	Effect of the heating stage on ignition conditions of a nickel-aluminum powder mixture. Combustion, Explosion and Shock Waves, 2000, 36, 571-574.	0.8	4
50	High-temperature synthesis of intermetallide Ni3Al by thermal shock of a powder mixture of pure elements with inert filler. Combustion, Explosion and Shock Waves, 1999, 35, 407-409.	0.8	4
51	High-temperature synthesis of a tungsten-free cermet. Combustion, Explosion and Shock Waves, 1999, 35, 518-522.	0.8	0
52	Effect of an inert filler on the ignition conditions of a powder mixture of nickel and aluminum. Combustion, Explosion and Shock Waves, 1998, 34, 26-28.	0.8	7
53	Effect of aluminum content on thermograms of synthesis of intermetallide Ni3Al by thermal shock. Combustion, Explosion and Shock Waves, 1998, 34, 636-638.	0.8	7
54	A mathematical model of high-temperature synthesis of the intermetallic compound Ni3Al during ignition. Combustion, Explosion and Shock Waves, 1996, 32, 158-164.	0.8	10

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55	A mathematical model of high-temperature synthesis of nickel aluminide Ni3Al by thermal shock of a powder mixture of pure elements. Combustion, Explosion and Shock Waves, 1996, 32, 299-305.	0.8	28
56	Distinctive features of the phase composition and structure of the intermetallic compound Ni3Al obtained by self-propagating high-temperature synthesis under pressure. Russian Physics Journal, 1995, 38, 1069-1073.	0.4	0
57	Nature of the temperature dependence of plasticity in the polycrystalline intermetallic compound Ni3Al. Russian Physics Journal, 1994, 37, 1079-1086.	0.4	1
58	Influence of deviation from stoichiometry on the plasticity and mechanism of fracture of the boron-alloyed intermetallic compound Ni3Al obtained by self-propagating high-temperature synthesis. Russian Physics Journal, 1994, 37, 394-399.	0.4	0
59	Composition and fine structure of an intermetallic prepared by the SHS method. Powder Metallurgy and Metal Ceramics, 1993, 32, 501-504.	0.8	0
60	Mathematical simulation and structural macrokinetics of the high-temperature synthesis of intermetallic compounds. Journal of Engineering Physics and Thermophysics, 1993, 65, 991-993.	0.6	0
61	Effect of chromium on structure, strength, and plasticity of high-temperature intermetallide Ni3Al. Russian Physics Journal, 1993, 36, 534-539.	0.4	3
62	Influence of boron on the low-temperature plasticity and fracture mechanism in the high-temperature synthesis of the intermetallic Ni3Al. Russian Physics Journal, 1993, 36, 1135-1140.	0.4	0
63	Determination of thermokinetic parameters from the inverse problem of an electrothermal explosion. Combustion, Explosion and Shock Waves, 1992, 28, 258-262.	0.8	7
64	Effect of the surface structure of carbon fibers on their strength in the application of a carbide coating in a metal melt. Soviet Powder Metallurgy and Metal Ceramics (English Translation of) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 377	0.1	0
65	Reaction of carbon filaments coated with titanium carbide and molten aluminum. Metal Science and Heat Treatment, 1980, 22, 809-812.	0.6	9
66	Activated graphitization of carbon fibers in a composite material with a nickel matrix. Soviet Powder Metallurgy and Metal Ceramics (English Translation of Poroshkovaya Metallurgiya), 1980, 19, 260-264.	0.1	0
67	Region of the propagation of a flame in a fluidized bed of solid material. Combustion, Explosion and Shock Waves, 1979, 15, 98-100.	0.8	0
68	Reinforcement of nickel with carbide-coated carbon fibers. Soviet Powder Metallurgy and Metal Ceramics (English Translation of Poroshkovaya Metallurgiya), 1979, 18, 713-715.	0.1	2
69	Frictional forces and resistance to the beginning of plastic deformation in Cu-Al solid solutions. Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika), 1969, 12, 620-627.	0.0	0
70	Improving Durability of Cermets for Metal Cutting by Generation of Subsurface Multilevel Structures. Applied Mechanics and Materials, 0, 379, 131-138.	0.2	10
71	Influence of Structural Phase State of the Surface Layer on Wear Resistance of Cutting Edge of Metal-Ceramic Insert when Metalcutting. Applied Mechanics and Materials, 0, 682, 530-536.	0.2	4
72	Bulk Nanostructured Ni₃Al Intermetallic and Ni₃Al-Base Alloy. Applied Mechanics and Materials, 0, 682, 210-215.	0.2	1

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73	Structural State Scale-Dependent Physical Characteristics and Endurance of Cermet Composite for Cutting Metal. Applied Mechanics and Materials, 0, 682, 405-409.	0.2	1
74	Study on TaC Reinforced Iron Matrix Surface Gradient Composites Produced <i>In Situ</i>. Materials Science Forum, 0, 848, 38-42.	0.3	3
75	A General Process for <i>In Situ</i> Formation of Iron-Matrix Composites Reinforced by Carbide Ceramic. Materials Science Forum, 0, 852, 461-466.	0.3	1
76	General Process for <i>In Situ</i> Formation of Iron-Matrix Surface Composites Reinforced by Carbide Ceramic. Materials Science Forum, 0, 852, 467-471.	0.3	0
77	Grain Size and Strength of the Ni₃Al Intermetallic Compound Synthesized under Pressure. Solid State Phenomena, 0, 313, 41-49.	0.3	0