Aleksey Nokhrin

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Structure and properties of advanced materials obtained by Spark Plasma Sintering. Acta Astronautica, 2015, 109, 172-176.	1.7	75
2	Spark plasma sintering of tungsten carbide nanopowders obtained through DC arc plasma synthesis. Journal of Alloys and Compounds, 2017, 708, 547-561.	2.8	61
3	Study of mechanical properties and corrosive resistance of ultrafine-grained α-titanium alloy Ti-5Al-2V. Journal of Alloys and Compounds, 2017, 723, 354-367.	2.8	44
4	Phosphate Ca1/4Sr1/4Zr2(PO4)3 of the NaZr2(PO4)3 structure type: Synthesis of a dense ceramic material and its radiation testing. Journal of Nuclear Materials, 2014, 446, 232-239.	1.3	40
5	Lanthanide (Nd, Gd) compounds with garnet and monazite structures. Powders synthesis by "wet― chemistry to sintering ceramics by Spark Plasma Sintering. Journal of Nuclear Materials, 2016, 473, 93-98.	1.3	40
6	Fabrication of NaZr2(PO4)3-type ceramic materials by spark plasma sintering. Inorganic Materials, 2012, 48, 313-317.	0.2	33
7	Impact of mechanical activation on sintering kinetics and mechanical properties of ultrafine-grained 95W-Ni-Fe tungsten heavy alloys. Journal of Alloys and Compounds, 2019, 773, 666-688.	2.8	30
8	Review of ballistic performance of alumina: Comparison of alumina with silicon carbide and boron carbide. Ceramics International, 2021, 47, 25201-25213.	2.3	29
9	Spark Plasma Sintering of fine-grained SrWO4 and NaNd(WO4)2 tungstates ceramics with the scheelite structure for nuclear waste immobilization. Journal of Alloys and Compounds, 2019, 774, 182-190.	2.8	27
10	Effect of severe plastic deformation realized by rotary swaging on the mechanical properties and corrosion resistance of near-α-titanium alloy Ti-2.5Al-2.6Zr. Journal of Alloys and Compounds, 2019, 785, 1233-1244.	2.8	26
11	Characterization of Nax(Ca/Sr)1-2xNdxWO4 complex tungstates fine-grained ceramics obtained by Spark Plasma Sintering. Ceramics International, 2018, 44, 4033-4044.	2.3	25
12	Spark Plasma Sintering of fine-grain ceramic-metal composites based on garnet-structure oxide Y2.5Nd0.5Al5O12 for inert matrix fuel. Materials Chemistry and Physics, 2018, 214, 516-526.	2.0	22
13	Advanced materials obtained by Spark Plasma Sintering. Acta Astronautica, 2017, 135, 192-197.	1.7	21
14	An investigation of thermal stability of structure and mechanical properties of Al-0.5Mg–Sc ultrafine-grained aluminum alloys. Journal of Alloys and Compounds, 2020, 831, 154805.	2.8	21
15	Influence of oxygen on densification kinetics of WC nanopowders during SPS. Ceramics International, 2021, 47, 4294-4309.	2.3	21
16	Effect of grain-boundary diffusion acceleration during recrystallization in submicrocrystalline metals and alloys prepared by severe plastic deformation. Technical Physics Letters, 2012, 38, 630-633.	0.2	19
17	Methods of compacting nanostructured tungsten–cobalt alloys from Nanopowders obtained by plasma chemical synthesis. Inorganic Materials: Applied Research, 2015, 6, 415-426.	0.1	19
18	Study of Structure and Mechanical Properties of Fine-Grained Aluminum Alloys Al-0.6wt.%Mg-Zr-Sc with Ratio Zr:Sc = 1.5 Obtained by Cold Drawing. Materials, 2019, 12, 316.	1.3	19

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19	Spark plasma sintering of fine-grained WC hard alloys with ultra-low cobalt content. Journal of Alloys and Compounds, 2021, 857, 157535.	2.8	19
20	Study of the structure and mechanical properties of nano- and ultradispersed mechanically activated heavy tungsten alloys. Nanotechnologies in Russia, 2013, 8, 108-121.	0.7	18
21	Phosphorus-containing cesium compounds of pollucite structure. Preparation of high-density ceramic and its radiation tests. Radiochemistry, 2014, 56, 98-104.	0.2	17
22	Spark Plasma Sintering of high-density fine-grained Y2.5Nd0.5Al5O12+SiC composite ceramics. Materials Research Bulletin, 2018, 103, 211-215.	2.7	17
23	A study of fine-grained ceramics based on complex oxides ZrO2-Ln2O3 (Ln = Sm, Yb) obtained by Spark Plasma Sintering for inert matrix fuel. Ceramics International, 2018, 44, 18595-18608.	2.3	17
24	Effect of the simultaneous enhancement in strength and corrosion resistance of microcrystalline titanium alloys. Doklady Physics, 2012, 57, 10-13.	0.2	15
25	Investigation of superplasticity and dynamic grain growth in ultrafine-grained Al–0.5%Mg–Sc alloys. Journal of Alloys and Compounds, 2021, 877, 160099.	2.8	15
26	Spark plasma sintering for high-speed diffusion bonding of the ultrafine-grained near-α Ti–5Al–2V alloy with high strength and corrosion resistance for nuclear engineering. Journal of Materials Science, 2019, 54, 14926-14949.	1.7	14
27	Investigation of the Densification Behavior of Alumina during Spark Plasma Sintering. Materials, 2022, 15, 2167.	1.3	14
28	Development of composite ceramic materials with improved thermal conductivity and plasticity based on garnet-type oxides. Journal of Nuclear Materials, 2017, 489, 158-163.	1.3	13
29	Investigation of mechanical properties and corrosion resistance of fine-grained aluminum alloys Al-Zn with reduced zinc content. Journal of Alloys and Compounds, 2022, 891, 162110.	2.8	13
30	Sparking plasma sintering of tungsten carbide nanopowders. Nanotechnologies in Russia, 2015, 10, 434-448.	0.7	12
31	Influence of the grain size and structural state of grain boundaries on the parameter of low-temperature and high-rate superplasticity of nanocrystalline and microcrystalline alloys. Physics of the Solid State, 2010, 52, 1098-1106.	0.2	11
32	Solid solution decomposition mechanisms in cast and microcrystalline Al-Sc alloys: III. Analysis of experimental data. Russian Metallurgy (Metally), 2012, 2012, 985-993.	0.1	11
33	Influence of high-energy ball milling on the solid-phase sintering kinetics of ultrafine-grained heavy tungsten alloy. Doklady Physics, 2017, 62, 420-424.	0.2	11
34	Spark Plasma Sintering of fine-grained ceramic-metal composites YAG:Nd-(W,Mo) based on garnet-type oxide Y2.5Nd0.5Al5O12 for inertÂmatrix fuel. Journal of Nuclear Materials, 2018, 511, 109-121.	1.3	11
35	Study of the Hydrolytic Stability of Fine-Grained Ceramics Based on Y2.5Nd0.5Al5O12 Oxide with a Garnet Structure under Hydrothermal Conditions. Materials, 2021, 14, 2152.	1.3	11
36	Ultrastrong nanodispersed tungsten pseudoalloys produced by high-energy milling and spark plasma sintering. Doklady Physics, 2011, 56, 109-113.	0.2	10

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37	Solid solution decomposition mechanisms in as-cast and microcrystalline Al-Sc alloys: IV. Effect of the decomposition of a solid solution on the mechanical properties of the alloys. Russian Metallurgy (Metally), 2013, 2013, 676-690.	0.1	10
38	Praseodymium and neodymium phosphates Ca9Ln(PO4)7 of whitlockite structure. Preparation of a ceramic with a high relative density. Radiochemistry, 2014, 56, 380-384.	0.2	10
39	High-strength ultrafine-grained tungsten-carbide-based materials obtained by spark plasma sintering. Technical Physics Letters, 2015, 41, 397-400.	0.2	10
40	Investigation of Microstructure and Corrosion Resistance of Ti-Al-V Titanium Alloys Obtained by Spark Plasma Sintering. Metals, 2021, 11, 945.	1.0	10
41	Dispersion limit upon equal-channel angular pressing. Temperature effect. Doklady Physics, 2004, 49, 296-302.	0.2	9
42	The effect of the local chemical composition of grain boundaries on the corrosion resistance of a titanium alloy. Technical Physics Letters, 2017, 43, 5-8.	0.2	9
43	Preparation of NZP-Type Ca0.75 + 0.5xZr1.5Fe0.5(PO4)3 –x(SiO4)x Powders and Ceramic, Thermal Expansion Behavior. Inorganic Materials, 2018, 54, 1267-1273.	0.2	9
44	Fine-Grained Tungstates SrWO4 and NaNd(WO4)2 with the Scheelite Structure Prepared by Spark Plasma Sintering. Russian Journal of Inorganic Chemistry, 2019, 64, 296-302.	0.3	9
45	A Study of the Impact of Graphite on the Kinetics of SPS in Nano- and Submicron WC-10%Co Powder Compositions. Ceramics, 2021, 4, 331-363.	1.0	9
46	Investigation of the Microstructure of Fine-Grained YPO4:Gd Ceramics with Xenotime Structure after Xe Irradiation. Ceramics, 2022, 5, 237-252.	1.0	9
47	Preparation and investigation of ultrafine-grained tungsten carbide with high hardness and fracture toughness. Doklady Physics, 2015, 60, 288-291.	0.2	8
48	A theoretical model of lattice diffusion in oxide ceramics. Physica B: Condensed Matter, 2018, 545, 297-304.	1.3	8
49	Fabrication of fine-grained CeO2-SiC ceramics for inert fuel matrices by Spark Plasma Sintering. Journal of Nuclear Materials, 2020, 539, 152225.	1.3	8
50	Kinetics of Spark Plasma Sintering of WC–10% Co Ultrafine-Grained Hard Alloy. Inorganic Materials: Applied Research, 2020, 11, 586-597.	0.1	8
51	Superhard nanodisperse tungsten heavy alloys obtained using the methods of mechanical activation and spark plasma sintering. Technical Physics Letters, 2009, 35, 1036-1039.	0.2	7
52	Simultaneous increase in the strength, plasticity, and corrosion resistance of an ultrafine-grained Ti–4Al–2V pseudo-alpha-titanium alloy. Technical Physics Letters, 2017, 43, 466-469.	0.2	7
53	Investigation of Aspects of High-Speed Sintering of Plasma-Chemical Nanopowders of Tungsten Carbide with Higher Content of Oxygen. Inorganic Materials: Applied Research, 2021, 12, 650-663.	0.1	7
54	Mechanical Properties and Thermal Shock Resistance of Fine-Grained Nd:YAG/SiC Ceramics. Inorganic Materials, 2022, 58, 199-204.	0.2	7

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55	Investigation of Thermal Stability of Microstructure and Mechanical Properties of Bimetallic Fine-Grained Wires from Al–0.25%Zr–(Sc,Hf) Alloys. Materials, 2022, 15, 185.	1.3	7
56	Solid solution decomposition mechanisms in cast and microcrystalline Al-Sc alloys: I. Experimental studies. Russian Metallurgy (Metally), 2012, 2012, 415-427.	0.1	6
57	High-speed electropulse plasma sintering of nanostructured tungsten carbide: Part 1. Experiment. Russian Journal of Non-Ferrous Metals, 2014, 55, 592-598.	0.2	6
58	Effect of Recovery and Recrystallization on the Hall–Petch Relation Parameters in Submicrocrystalline Metals: I. Experimental Studies. Russian Metallurgy (Metally), 2018, 2018, 71-89.	0.1	6
59	Thermal Expansion of Scheelite-Like Molybdate Powders and Ceramics. Inorganic Materials, 2019, 55, 730-736.	0.2	6
60	Corrosion fatigue crack initiation in ultrafine-grained near-α titanium alloy PT7M prepared by Rotary Swaging. Journal of Alloys and Compounds, 2019, 790, 347-362.	2.8	6
61	Spark Plasma Sintering of fine-grained YAG:Nd+MgO composite ceramics based on garnet-type oxide Y2.5Nd0.5Al5O12 for inert fuel matrices. Materials Chemistry and Physics, 2019, 226, 323-330.	2.0	6
62	Synthesis, Thermal Expansion Behavior and Sintering of Sodium Zirconium Nickel and Calcium Zirconium Nickel Phosphates. Inorganic Materials, 2021, 57, 529-540.	0.2	6
63	Effect of grain boundary state and grain size on the microstructure and mechanical properties of alumina obtained by SPS: A case of the amorphous layer on particle surface. Ceramics International, 2022, 48, 25723-25740.	2.3	6
64	Effect of Recovery and Recrystallization on the Hall–Petch Relation Parameters in Submicrocrystalline Metals: II. Model for Calculating the Hall–Petch Relation Parameters. Russian Metallurgy (Metally), 2018, 2018, 487-499.	0.1	5
65	Radiation Resistance and Hydrolytic Stability of Y0.95Gd0.05PO4-Based Ceramics with the Xenotime Structure. Inorganic Materials, 2021, 57, 760-765.	0.2	5
66	Optimum grain size for superplastic deformation. Doklady Physics, 2006, 51, 500-504.	0.2	4
67	Changes in the diffusion properties of nonequilibrium grain boundaries upon recrystallization and superplastic deformation of submicrocrystalline metals and alloys. Physics of the Solid State, 2017, 59, 1584-1593.	0.2	4
68	Modeling of the distribution of thermal fields during spark plasma sintering of alumina ceramics. IOP Conference Series: Materials Science and Engineering, 2019, 558, 012004.	0.3	4
69	Thermal Stability of the Structure and Mechanical Properties of Submicrocrystalline Al–0.5% Mg–Sc Aluminum Alloys. Russian Metallurgy (Metally), 2021, 2021, 7-24.	0.1	4
70	Sintering of nano- and ultradispersed mechanically activated W-Ni-Fe powders and the manufacture of ultrahigh-strength heavy tungsten alloys. Russian Metallurgy (Metally), 2014, 2014, 215-228.	0.1	3
71	The effect of grain boundaries state on the thermal stability of a submicrocrystalline titanium alloy structure. Technical Physics Letters, 2015, 41, 515-518.	0.2	3
72	Effect of the severe plastic deformation temperature on the diffusion properties of the grain boundaries in ultrafine-grained metals. Russian Metallurgy (Metally), 2017, 2017, 413-425.	0.1	3

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73	Thermal Stability of the Structure and Mechanical Properties of Fine-Grained Aluminum Conductor Alloys Al–Mg–Zr–Sc(Yb). Russian Metallurgy (Metally), 2020, 2020, 987-998.	0.1	3
74	Experimental Study of Dynamic Strength of Aluminum Oxide Based Fine-Grained Ceramics Obtained by Spark Plasma Sintering. Journal of Applied Mechanics and Technical Physics, 2020, 61, 494-500.	0.1	3
75	Spark Plasma Sintering of WC–10Co Nanopowders with Various Carbon Content Obtained by Plasma-Chemical Synthesis. Inorganic Materials: Applied Research, 2021, 12, 528-537.	0.1	3
76	Enhancement of the Strength and the Corrosion Resistance of a PT-7M Titanium Alloy Using Rotary Forging. Russian Metallurgy (Metally), 2021, 2021, 600-610.	0.1	3
77	Hydrolytic Stability of Y2.5Nd0.5Al5O12-Based Garnet Ceramics under Hydrothermal Conditions. Inorganic Materials, 2021, 57, 874-877.	0.2	3
78	Strain hardening under structural superplasticity conditions. Physics of the Solid State, 2007, 49, 684-690.	0.2	2
79	Spark Plasma Sintering of high-strength ultrafine-grained tungsten carbide. IOP Conference Series: Materials Science and Engineering, 2017, 218, 012012.	0.3	2
80	The use of Spark Plasma Sintering method for high-rate diffusion welding of high-strength UFG titanium alloys. IOP Conference Series: Materials Science and Engineering, 2017, 218, 012013.	0.3	2
81	A theoretical model of grain boundary self-diffusion in metals with phase transitions (case study into) Tj ETQq1	1 0.78431 1.8	.4 rgBT /Overld
82	Effect of Recovery and Recrystallization on the Hall–Petch Relation Parameters in Submicrocrystalline Metals: III. Model for the Effect of Recovery and Recrystallization on the Hall–Petch Relation Parameters. Russian Metallurgy (Metally), 2018, 2018, 867-879.	0.1	2
83	Preparation of Fine-Grained Y2.5Nd0.5Al5O12 + MgO composite ceramics for Inert Matrix Fuels by Spark Plasma Sintering. Inorganic Materials, 2018, 54, 1291-1298.	0.2	2
84	Investigation of the kinetics of spark plasma sintering of alumina ceramics. Part 1. The initial stage of sintering. IOP Conference Series: Materials Science and Engineering, 2019, 558, 012005.	0.3	2
85	Corrosion Resistance of Welded Joints in the Ultrafine-Grained Pseudo-α-Titanium Ti–5Al–2V Alloy. Physics of Metals and Metallography, 2021, 122, 761-767.	0.3	2
86	Spark plasma sintering for high-rate diffusion welding of a UFG titanium alloy PT3V. IOP Conference Series: Materials Science and Engineering, 0, 558, 012029.	0.3	2
87	Preparation of Fine-Grained CeO2–SiC Ceramics for Inert Fuel Matrices by Spark Plasma Sintering. Inorganic Materials, 2020, 56, 1307-1313.	0.2	2
88	Investigation of Effect of Preliminary Annealing on Superplasticity of Ultrafine-Grained Conductor Aluminum Alloys Al-0.5%Mg-Sc. Materials, 2022, 15, 176.	1.3	2
89	Investigation of the Processes of Fatigue and Corrosion-Fatigue Destruction of Pseudo-α Titanium Alloy. Inorganic Materials: Applied Research, 2022, 13, 349-356.	0.1	2
90	Study of High-Speed Sintering of Fine-Grained Hard Alloys Based on Tungsten Carbide with Ultralow Cobalt Content: Part I. Pure Tungsten Carbide. Inorganic Materials: Applied Research, 2022, 13, 761-774.	0.1	2

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91	Effect of grain boundary diffusion acceleration during structural superplasticity of nano- and microcrystalline materials. Doklady Physics, 2011, 56, 520-522.	0.2	1
92	Spark plasma sintering of high-strength lightweight ceramics. IOP Conference Series: Materials Science and Engineering, 2017, 218, 012002.	0.3	1
93	Mechanisms of volume diffusion in metals near the Debye temperature. Materials Chemistry and Physics, 2018, 219, 273-277.	2.0	1
94	Investigation of thermal stability of the structure and properties of ultra-fine-grained copper alloys obtained by ECAP. Journal of Physics: Conference Series, 2019, 1347, 012024.	0.3	1
95	Investigation of superplasticity of ultrafine-grained copper alloys obtained using the ECAP. Journal of Physics: Conference Series, 2019, 1347, 012063.	0.3	1
96	Investigation of the kinetics of spark plasma sintering of alumina. Part 2. Intermediate and final stages of sintering. IOP Conference Series: Materials Science and Engineering, 2019, 558, 012006.	0.3	1
97	Study of the kinetics of spark plasma sintering of ultrafine-grained hard alloys WC-10%Co. Journal of Physics: Conference Series, 2020, 1431, 012030.	0.3	1
98	Binderless tungsten carbides with an increased oxygen content obtained by spark plasma sintering. Journal of Physics: Conference Series, 2021, 1758, 012023.	0.3	1
99	Effect of initial particle size and various composition on the spark plasma sintering of binderless tungsten carbide. Journal of Physics: Conference Series, 2021, 1758, 012022.	0.3	1
100	Experimental study of the influence of different carbon content on the shrinkage kinetics and structure evolution of ultralow-cobalt hard alloys during spark plasma sintering. IOP Conference Series: Materials Science and Engineering, 0, 1008, 012049.	0.3	1
101	Superplasticity of High-Strength Submicrocrystalline Al–0.5Mg–Sc Aluminum Alloys. Russian Metallurgy (Metally), 2021, 2021, 1102-1115.	0.1	1
102	The effect additives of magnesium, titanium and zirconium oxides additives on the densification kinetics and structure of alumina during spark plasma sintering. IOP Conference Series: Materials Science and Engineering, 2021, 1014, 012045.	0.3	1
103	Ultralow-cobalt hard alloys obtained by spark plasma sintering. IOP Conference Series: Materials Science and Engineering, 2021, 1014, 012020.	0.3	1
104	Experimental Study of Dynamic Strength of Aluminum Oxide Based Fine-Grained Ceramics Obtained by Spark Plasma Sintering. Prikladnaâ Mehanika, TehniÄeskaâ Fizika, 2020, 61, 207-214.	0.0	1
105	Studying the Thermal Stability of Cast and Microcrystalline Alloys Al–2.5Mg–Sc–Zr. Journal of Surface Investigation, 2022, 16, 18-22.	0.1	1
106	Effect of small chromium additions on the temperature of the onset of recrystallization in microcrystalline copper produced by equal-channel angular pressing. Physics of the Solid State, 2006, 48, 1425-1432.	0.2	0
107	Acceleration of grain-boundary diffusion at recrystallization in submicrocrystalline metals produced by the method of equal-channel angular pressing. Russian Physics Journal, 2012, 55, 649-656.	0.2	0
108	Studies into the impact of mechanical activation on optimal sintering temperature of UFG heavy tungsten alloys. IOP Conference Series: Materials Science and Engineering, 2017, 218, 012011.	0.3	0

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109	The factors leading to abnormal grain growth during sintering of hard alloy. Journal of Physics: Conference Series, 2018, 1134, 012020.	0.3	О
110	The Use of SPS for High-Rate Diffusion Welding of High-Strength Ultrafine-Grained α-Titanium Alloy Ti-5Al-2V. , 2019, , 703-711.		0
111	Impact of High-Energy Mechanical Activation on Sintering Kinetics and Mechanical Properties of UFG Heavy Tungsten Alloys: SPS Versus Sintering in Hydrogen. , 2019, , 337-365.		Ο
112	An investigation of thermal stability of structure and mechanical properties of Al-0.5Mg-Sc submicrocrystalline aluminum alloys. Journal of Physics: Conference Series, 2019, 1347, 012055.	0.3	0
113	Study of the thermal stability of structure and mechanical properties of submicrocrystalline aluminum alloys Al-2.5Mg-Sc-Zr. Journal of Physics: Conference Series, 2019, 1347, 012058.	0.3	Ο
114	Corrosion–Fatigue Fracture of the Ultrafine-Grained PT-7M Titanium Alloy Fabricated by Rotary Forging. Russian Metallurgy (Metally), 2020, 2020, 767-778.	0.1	0
115	New method of the estimation of the bending strength of ultrafine-grained structural ceramics for application in the conditions of multiaxial stress-strain state. Journal of Physics: Conference Series, 2020, 1431, 012031.	0.3	Ο
116	Structure, thermal stability and mechanical properties of composite wires made of conducting microalloyed aluminum alloys. IOP Conference Series: Materials Science and Engineering, 0, 1008, 012023.	0.3	0
117	Studying Corrosion Resistance of Weld Joints of Ultrafine-Grained Titanium Alloys. IOP Conference Series: Materials Science and Engineering, 2021, 1014, 012037.	0.3	Ο
118	Superplasticity of fine-grained alumina obtained by spark plasma sintering. Journal of Physics: Conference Series, 2021, 1758, 012031.	0.3	0
119	Studying the Impact of Blast Treatment on the Structure and Mechanical Properties of Carbon Steel. IOP Conference Series: Materials Science and Engineering, 2021, 1014, 012034.	0.3	Ο
120	Studying Thermal Stability of Cast and Microcrystalline Alloys Al-(2.5, 4)%Mg-Sc-Zr. IOP Conference Series: Materials Science and Engineering, 2021, 1014, 012051.	0.3	0
121	Corrosion resistance of ultrafine-grained pseudo-α titanium alloy PT-3V. IOP Conference Series: Materials Science and Engineering, 0, 1008, 012024.	0.3	Ο
122	Synthesis, Temperature Behavior, and Hydrolytic Stability of Na–Zr and Ca–Zr Phosphate Molybdates and Phosphate Tungstates. Inorganic Materials, 2022, 58, 78-89.	0.2	0
123	Study of the Thermal Stability of the Structure and Mechanical Properties of Composite Wires from Microalloved Aluminum Alloys. Journal of Surface Investigation, 2021, 15, S30-S36.	0.1	0