**Публікації Scopus Гіржона В.В.**

Girzhon, V., Yemelianchenko, V., Smolyakov, O. HIGH ENTROPY COATING FROM AlCoCrCuFeNi ALLOY, OBTAINED BY LASER ALLOYING (2023) Acta Metallurgica Slovaca, 29 (1), pp. 44-49. DOI: 10.36547/ams.29.1.1710

Smolyakov, O.V., Girzhon, V.V., Mudry, S.I., Nykyruy, Y.S. Explosive crystallisation of metal glasses based on Fe-B during pulsed laser heating. Experiment and modelling (2023) Archives of Materials Science and Engineering, 119 (2), pp. 49-55. DOI: 10.5604/01.3001.0053.4740

Girzhon, V.V., Yemelianchenko, V.V., Smolyakov, O.V., Razzokov, A.S. Analysis of structure formation processes features in high-entropy alloys of Al-Co-Cr-Fe-Ni system during laser alloying (2022) Results in Materials, 15, статья № 100311, . DOI: 10.1016/j.rinma.2022.100311

Razzokov, A.Sh., Saidov, A.S., Girzhon, V.V., Smolyakov, O.V. FEATURES OF GROWING Si-AND Si1−x Gex-SINGLE-CRYSTAL FILMS FROM SOLUTION-MELT BASED ON TIN

(2022) Journal of Physical Studies, 26 (4), статья № 4601, . DOI: 10.30970/jps.26.4601

Girzhon, V.V., Yemelianchenko, V.V., Smolyakov, O.V. Structure of High-Entropy CoCrFeNi Alloy Obtained by Laser Alloying (2022) Metallofizika i Noveishie Tekhnologii, 44 (6), pp. 725-733. DOI: 10.15407/mfint.44.06.0725

Girzhon, V.V., Smolyakov, O.V., Ovchinnikov, O.V., Zavgorodny, O.V.

Laser Surface Strengthening of Heat-Resistant Titanium Alloy for Gas Turbine Engines

(2022) Metallofizika i Noveishie Tekhnologii, 44 (3), pp. 383-391.

DOI: 10.15407/mfint.44.03.0383

Girzhon, V.V., Yemelianchenko, V.V., Smolyakov, O.V.

Structure of high-entropy alcocrfeni alloy obtained by laser alloying

(2021) Metallofizika i Noveishie Tekhnologii, 43 (3), pp. 399-406.

DOI: 10.15407/mfint.43.03.0399

Nykyruy, Y., Mudry, S., Kulyk, Y., Shtablavyi, I., Serkiz, R., Girzhon, V., Smolyakov, O.

Structure and phase transformations of amorphous-nanocrystalline Al-based alloy

(2020) Applied Nanoscience (Switzerland), 10 (12), pp. 4385-4393.

DOI: 10.1007/s13204-020-01340-y

Girzhon, V.V., Yemelianchenko, V.V., Kushch, O.V., Bykov, I.O.

Laser nitriding of titanium alloys

(2020) Metallofizika i Noveishie Tekhnologii, 42 (4), pp. 553-563.

DOI: 10.15407/mfint.42.04.0553

Shved, O., Mudry, S., Girzhon, V., Smolyakov, O.

X-ray diffraction studies of rapid cooled Al-V and Al-Fe-V alloys

(2019) Journal of Achievements in Materials and Manufacturing Engineering, 96 (1), pp. 5-11.

DOI: 10.5604/01.3001.0013.7931

Girzhon, V.V., Smolyakov, O.V.

Modelling of lattices of two-dimensional quasi-crystals

(2019) Progress in Physics of Metals, 20 (4), pp. 551-583.

DOI: 10.15407/ufm.20.04.551

Gіrzhon, V.V., Smolyakov, O.V., Gayvoronsky, I.V.

The influence of different types of thermal effect on the structure of the Al-Cu-Fe system containing quasicrystal phase

(2018) Metallofizika i Noveishie Tekhnologii, 40 (7), pp. 909-918.

DOI: 10.15407/mfint.40.07.0909

Smolyakov, A.V., Girzhon, V.V.

Modeling of dodecagonal quasicrystal lattices

(2017) Journal of Experimental and Theoretical Physics, 125 (3), pp. 443-450.

DOI: 10.1134/S1063776117080106

Girzhon, V.V., Smolyakov, O.V., Dmitrenko, T.A.

Laser fusion of an zirconium-based alloy in various gaseous mediums

(2017) Metallofizika i Noveishie Tekhnologii, 39 (8), pp. 1087-1095.

DOI: 10.15407/mfint.39.08.1087

Girzhon, V.V., Ovchinnikov, A.V.

Application of laser treatment for hardening parts of gas turbine engines from titanium alloys

(2017) Metal Science and Heat Treatment, 58 (11-12), pp. 719-723.

DOI: 10.1007/s11041-017-0084-2

Girzhon, V.V., Smolyakov, O.V., Zdorovets, O.F.

Laser doping of titanium with transition metals of the Fe group

(2017) Metallofizika i Noveishie Tekhnologii, 39 (4), pp. 507-515.

DOI: 10.15407/mfint.39.04.0507

Gayvoronsky, I.V., Girzhon, V.V.

Structural state of zirconium surface layers after laser alloying by titanium and nickel

(2015) YSF 2015 - International Young Scientists Forum on Applied Physics, статья № 7333244, .

DOI: 10.1109/YSF.2015.7333244

Gaivoronskii, I.V., Girzhon, V.V.

Laser Treatment of Zirconium

(2015) Metal Science and Heat Treatment, 57 (5-6), pp. 304-306.

DOI: 10.1007/s11041-015-9880-8

Girzhon, V.V., Kovalyova, V.M., Smolyakov, O.V.

Surface-layers' structure of hypoeutectic silumin after laser alloying by mixture of the copper and cobalt powders

(2015) Metallofizika i Noveishie Tekhnologii, 37 (5), pp. 703-712.

DOI: 10.15407/mfint.37.05.0703

Girzhon, V.V., Smolyakov, O.V., Zakharenko, M.I.

Modeling quasi-lattice with octagonal symmetry

(2014) Journal of Experimental and Theoretical Physics, 119 (5), pp. 854-860.

DOI: 10.1134/S1063776114110053

Girzhon, V.V., Kovalyova, V.M., Smolyakov, O.V.

Decagonal quasi-crystalline phase formation during laser alloying of aluminium with cobalt and nickel

(2014) Metallofizika i Noveishie Tekhnologii, 36 (6), pp. 745-756.

DOI: 10.15407/mfint.36.06.0745

Gaivoronskii, I.V., Girzhon, V.V., Skrebtsov, A.A., Ovchinnikov, A.V. Structure and properties of surface layers of sintered powder titanium VT1-0 after laser treatment(2014) Metal Science and Heat Treatment, 56 (1-2), pp. 57-59. DOI: 10.1007/s11041-014-9703-3

Girzhon, V.V., Kovalyova, V.M., Smolyakov, O.V. Formation of aluminium surface layers' structure during laser alloying with copper and cobalt powders(2013) Metallofizika i Noveishie Tekhnologii, 35 (8), pp. 1095-1100.

Girzhon, V.V., Smolyakov, O.V., Tantsyura, I.V. Modelling of structure-formation processes in eutectic alloy of Al-Si system after pulse laser treatment(2012) Metallofizika i Noveishie Tekhnologii, 34 (12), pp. 1723-1733.

Gayvoronskyy, I.V., Girzhon, V.V., Smolyakov, O.V. Thermal stability of aluminium surface-layers structure after laser alloying with copper and iron metals from the mixture(2012) Metallofizika i Noveishie Tekhnologii, 34 (5), pp. 697-704.

Girzhon, V.V., Kovalyova, V.M., Smolyakov, O.V., Zakharenko, M.I. Modeling of decagonal quasicrystal lattice (2012) Journal of Non-Crystalline Solids, 358 (2), pp. 137-144. DOI: 10.1016/j.jnoncrysol.2011.09.017

Volchok, I.P., Girzhon, V.V., Tantsiura, I.V. Increasing of microhardness of Al-Si alloys by laser treatment (2011) Metallofizika i Noveishie Tekhnologii, 33 (8), pp. 1111-1118.

Girzhon, V.V., Dmitrenko, T.A. Structure and properties of the surface layers of Fe-C alloys after combined laser-plasma treatment (2011) Inorganic Materials: Applied Research, 2 (3), pp. 237-241. DOI: 10.1134/S2075113311030099

Girzhon, V.V., Smolyakov, A.V., Zakharenko, N.I., Babich, N.G., Semen'ko, M.P. Effect of pulsed laser heating on the magnetic properties of amorphous alloy 30KSR (2011) Physics of Metals and Metallography, 111 (6), pp. 561-565. DOI: 10.1134/S0031918X11050061

Girzhon, V.V., Smolyakov, A.V., Babich, N.G., Semen'Ko, M.P. Effect of pulsed laser heating on the magnetic properties of the amorphous alloy Fe76Si13B11 (2009) Physics of Metals and Metallography, 108 (2), pp. 125-130. DOI: 10.1134/S0031918X09080043

Girzhon, V.V., Smolyakov, A.V., Tantsyura, I.V. Structural state of surface layers of aluminum after laser alloying using a mixture of copper and iron powders (2008) Physics of Metals and Metallography, 106 (4), pp. 384-388. DOI: 10.1134/S0031918X08100086

Brekharya, G.P., Girzhon, V.V., Tantsyura, I.V. Formation of structure of surface layers of the eutectic and hypereutectic silumins after pulse laser processing (2007) Metallofizika i Noveishie Tekhnologii, 29 (9), pp. 1243-1254.

Girzhon, V.V., Maltseva, T.A. Laser alloying of Y12 high-carbon steel by TiB2 boride of the titanium (2006) Metallofizika i Noveishie Tekhnologii, 28 (10), pp. 1383-1396.

Girzhon, V.V., Tantsiura, I.V. Formation of quasi-eutectic structure in AK9 and AK12 alloys after pulse laser processing (2006) Metallofizika i Noveishie Tekhnologii, 28 (9), pp. 1249-1259.

Girzhon, V.V., Tahtsiuba, I.V. Formation of structure of surface layers of aluminium alloys after pulse laser treatment [Formation of structure of surface layers of aluminium alloys after pulse laser treatment] (2005) Metallofizika i Noveishie Tekhnologii, 27 (11), pp. 1519-1525.

Girzhon, V.V., Mal'tseva, T.A. Structure state of near-surface layers of a steel 30 after laser-assisted alloying by titanium boride TiB2 [Structure state of near-surface layers of a steel 30 after laser-assisted alloying by titanium boride TiB2](2005) Metallofizika i Noveishie Tekhnologii, 27 (10), pp. 1307-1316.

Girzhon, V.V., Mal'tseva, T.A. The features of formation of structure of surface layers of medium concentration steel (0-7% wt.) at laser alloying by titanium boride TiB 2 (2004) Metallofizika i Noveishie Tekhnologii, 26 (3), pp. 325-334+III.

Girzhon, V.V., Mal'tseva, T.A., Zolotarevskij, I.V. Laser alloying of the surface of armco-iron with titanium boride (2003) Fizika i Khimiya Obrabotki Materialov, (5), pp. 53-58.

Girzhon, V.V., Smolyakov, A.V., Yastrebova, T.S.

Crystallization of an amorphous Fe72Ni9Si8B11 alloy upon laser heating and isothermal annealing

(2003) Fizika Metallov i Metallovedenie, 96 (6), pp. 73-77.

Girzhon, V.V., Smolyakov, A.V., Yastrebova, T.S.

Crystallization of an Amorphous Fe72Ni9Si 8B11 Alloy upon Laser Heating and Isothermal Annealing

(2003) Physics of Metals and Metallography, 96 (6), pp. 615-619.

Girzhon, V.V., Smolyakov, A.V., Yastrebova, T.S., Sheiko, L.M.

Crystallization of metallic amorphous Fe-Si-B alloys upon pulse laser heating

(2002) Physics of Metals and Metallography, 93 (1), pp. 58-62.

Girzhon, V.V., Smolyakov, A.V., Yastrebova, T.S., Shejko, L.M.

Crystallization of metallic amorphous Fe-Si-B alloys upon pulse laser heating

(2002) Fizika Metallov i Metallovedenie, 93 (1), pp. 64-69.

Shejko, L.M., Sadovoj, A.V., Girzhon, V.V.

Effect of zones of mechanical deformation on the distribution of saturation magnetization Ms in amorphous ribbons of iron-based alloys

(2001) Fizika Metallov i Metallovedenie, 92 (1), pp. 5-11.

Sheiko, L.M., Sadovoi, A.V., Girzhon, V.V.

Effect of zones of mechanical deformation on the distribution of saturation magnetization Ms in amorphous ribbons of iron-based alloys

(2001) Physics of Metals and Metallography, 92 (1), pp. 1-7.

Girzhon, V.V.

Structure of invar alloy H36 after isothermal annealing and laser-light treatment

(2000) Metal Physics and Advanced Technologies, 18 (10), pp. 1133-1138.

Girzhon, V.V.

Structure of the invar alloy H36 after isothermal annealing and laser-light treatment

(1998) Metallofizika i Noveishie Tekhnologii, 20 (10), pp. 38-42.

Girzhon, V.V., Rudnev, Yu.V., Anpilogov, D.I., Smolyakov, A.V.

Crystallization of metal-metalloid glasses under laser heating

(1998) Scripta Materialia, 39 (6), pp. 815-823.

DOI: 10.1016/S1359-6462(98)00244-9

Girzhon, V.V. Relaxation processes in Fe-B metallic glasses under low energy laser treatment (1998) Materials Science Forum, 282-283, pp. 37-40. DOI: 10.4028/www.scientific.net/msf.282-283.37

Girzhon, V.V.

Peculiarities of the low magnetostrictive amorphous ribbons crystallization under laser heating

(1998) Materials Science Forum, 282-283, pp. 27-32.

DOI: 10.4028/www.scientific.net/msf.282-283.27

Brekharya, G.P., Girzhon, V.V., Smolyakov, A.V., Nemoshkalenko, V.V.

An effect of the cyclic heat treatment on a structure state of amorphous alloys of the Fe-B system

(1997) Metallofizika i Noveishie Tekhnologii, 19 (12), pp. 69-73.

Anpilogov, D.I., Girzhon, V.V., Danil'chenko, V.E.

Influence of laser treatment on the martensitic conversion and strength of N30 alloy

(1997) Russian Metallurgy (Metally), (5), pp. 112-116.

Volosevitch, P.Y., Girzhon, V.V., Danil'chenko, V.E.

Formation of the structure of Fe-Ni alloys at the result of multiple martensite transformations

(1997) Scripta Materialia, 37 (7), pp. 977-981.

DOI: 10.1016/S1359-6462(97)00200-5

Anpilogov, D.I., Girzhon, V.V., Danil'chenko, V.E.

Effect of laser processing on martensitic transformation and strength in alloy N30

(1997) Izvestia Akademii nauk SSSR. Metally, (5), pp. 97-100.

Girzhon, V.V., Anpilogov, D.I.

Influence of pulsed laser processing on structure of alloy cast iron

(1997) Metallovedenie i Termicheskaya Obrabotka Metallov, (4), pp. 11-13.

Girzhon, V.V., Anpilogov, D.I.

Effect of pulsed laser treatment on the structure of alloyed cast iron

(1997) Metal Science and Heat Treatment, 39 (4), pp. 144-145.

DOI: 10.1007/bf02469068

Anpilogov, D.I., Girzhon, V.V., Rudnev, Yu.V., Smolyakov, A.V.

Crystallization of amorphous Co68Fe4Cr4Si13B11 alloy upon isothermal and laser annealings

(1996) Physics of Metals and Metallography, 82 (3), pp. 281-284.

Anpilogov, D.I., Girzhon, V.V., Rudnev, Yu.V., Smolyakov, A.V.

Crystallization of Co68Fe4Cr4Si13B11 amorphous ribbon under conditions of isothermal annealing and laser beam heating

(1996) Fizika Metallov i Metallovedenie, 82 (3), pp. 110-116.

Girzhon, V.V., Danil'chenko, V.E.

Recrystallization of iron-nickel austenite hardened due to phase transformations

(1996) Metallovedenie i Termicheskaya Obrabotka Metallov, (2), pp. 2-4.

Girzhon, V.V., Danil'chenko, V.E.

Recrystallization of phase-hardened iron-nickel austenite

(1996) Metal Science and Heat Treatment, 38 (3), pp. 97-100.

DOI: 10.1007/BF01401434

Girzhon, V.V., Danilchenko, V.E.

Decomposition of phase-hardened martensite in Fe-Ni-C alloy

(1995) Scripta Metallurgica et Materiala, 32 (1), pp. 83-86.

DOI: 10.1016/S0956-716X(99)80016-8

Girzhon, V.V., Danil'chenko, V.E.

Microstructure of phase-hardened iron-nickel alloys

(1994) Metal Science and Heat Treatment, 36 (9), pp. 482-485.

DOI: 10.1007/BF01395907

Girzhon, V.V., Rudnev, Yu.V.

Specific features of Fe61Co20Si5B14 amorphous alloy crystallization under the action of isothermal and laser annealings

(1994) Fizika Metallov i Metallovedenie, 77 (1), pp. 142-145.

Brekharya, G.P., Vasil'eva, E.A., Girzhon, V.V., Zaryanov, M.L., Savin, V.V.

Influence of thermocyclic treatment on structure and properties of Fe-Nd-B permanent magnets

(1993) Fizika Metallov i Metallovedenie, 76 (2), pp. 129-133.

Girzhon, V.V.

Surface crystallization of the amorphous Y63Co37 ribbons under laser irradiation

(1992) Fizika i Khimiya Obrabotki Materialov, (6), pp. 140-142.

Volosevich, P.Yu., Girzhon, V.V., Danil'chenko, V.E.

Rules of formation of the structure of phase-strain-hardened 50N25 steel in slow heating

(1992) Metal Science and Heat Treatment, 34 (3), pp. 160-164.

DOI: 10.1007/BF00703628

Bondar, V.I., Girzhon, V.V., Danil'Chenko, V.Ve.

Influence of thermal cycling on the martensitic transformation in iron-nickel alloys

(1991) Physics of Metals and Metallography, 71 (1), pp. 152-157.

Brekharya, G.P., Girzhon, V.V., Danil'chenko, V.E.

Special features of the structure of laser welds in dissimilar metals

(1991) Physics and chemistry of materials treatment, 25 (3), pp. 310-313.

Brekharya, G.P., Girzhon, V.V., Danil'chenko, V.E.

Peculiarities of different metals laser weld structure

(1991) Fizika i Khimiya Obrabotki Materialov, (3), pp. 116-120.

Bondar', V.I., Girzhon, V.V., Danil'chenko, V.Yu.

Influence of thermocycling on martensite transformation in iron-nickel alloys

(1991) Fizika Metallov i Metallovedenie, (1), pp. 159-164.

Girzhon, V.V., Danil'Chenko, V.Ye.

Decomposition of precipitation-hardened martensite in steel 150N10

(1990) Physics of Metals and Metallography, 70 (1), pp. 186-189.

Volosevich, P.Yu., Girzhon, V.V., Danil'chenko, V.E.

The influence of repeated γ⇆α-transformations on the structure of iron-nickel alloys

(1990) Metal Science and Heat Treatment, 32 (11), pp. 811-814.

DOI: 10.1007/BF00700057

Bondar', V.I., Girzhon, V.V., Danil'chenko, V.E.

Effects of phase hardening on martensite transformations in high-nickel steel

(1990) Scripta Metallurgica et Materiala, 24 (1), pp. 75-78.

DOI: 10.1016/0956-716X(90)90569-3

Bondar, V.I., Girzhon, V.V., Danil'chenko, V.Ye.

Influence of γ↔α transitions on the martensitic transformation and crystal structure of a high-nickel steel

(1988) Physics of Metals and Metallography, 66 (2), pp. 101-106.

Bondar, V.I., Girzhon, V.V., Danil'chenko, V.E.

Influence of heating rate in the interval of inverse (α→γ) transition on the kinetics of subsequent martensitic transformation in steel 50N24

(1987) Russian metallurgy. Metally, (6), pp. 76-79.