

Sergey V Astafurov

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

526
citations

840776

11
h-index

677142

22
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56
all docs

56
docs citations

56
times ranked

246
citing authors

#	ARTICLE	IF	CITATIONS
1	Overcoming the limitations of distinct element method for multiscale modeling of materials with multimodal internal structure. <i>Computational Materials Science</i> , 2015, 102, 267-285.	3.0	92
2	Gradient transition zone structure in "steel" copper sample produced by double wire-feed electron beam additive manufacturing. <i>Journal of Materials Science</i> , 2020, 55, 9258-9272.	3.7	62
3	The strain-rate dependence of the Hall-Petch effect in two austenitic stainless steels with different stacking fault energies. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 756, 365-372.	5.6	58
4	Microstructure and grain growth inhomogeneity in austenitic steel produced by wire-feed electron beam melting: the effect of post-building solid-solution treatment. <i>Journal of Materials Science</i> , 2020, 55, 9211-9224.	3.7	41
5	Influence of Features of Interphase Boundaries on Mechanical Properties and Fracture Pattern in Metal-Ceramic Composites. <i>Journal of Materials Science and Technology</i> , 2013, 29, 1025-1034.	10.7	40
6	Phase Composition of Austenitic Stainless Steels in Additive Manufacturing: A Review. <i>Metals</i> , 2021, 11, 1052.	2.3	40
7	Influence of phase interface properties on mechanical characteristics of metal ceramic composites. <i>Physical Mesomechanics</i> , 2014, 17, 282-291.	1.9	22
8	Low-temperature tensile ductility by V-alloying of high-nitrogen CrMn and CrNiMn steels: Characterization of deformation microstructure and fracture micromechanisms. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 745, 265-278.	5.6	20
9	The microstructure, phase composition and tensile properties of austenitic stainless steel in a wire-feed electron beam melting combined with ultrasonic vibration. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 820, 141519.	5.6	19
10	A comparative study of a solid solution hardening in carbon-alloyed FeMnCrNiCo _{0.95} C _{0.05} high-entropy alloy subjected to different thermal-mechanical treatments. <i>Materials Letters</i> , 2021, 285, 129073.	2.6	16
11	Anisotropy of the tensile properties in austenitic stainless steel obtained by wire-feed electron beam additive growth. <i>Letters on Materials</i> , 2019, 9, 460-464.	0.7	15
12	Electron-beam additive manufacturing of high-nitrogen steel: Microstructure and tensile properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 826, 141951.	5.6	13
13	The effect of age-hardening mechanism on hydrogen embrittlement in high-nitrogen steels. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20529-20544.	7.1	11
14	Microstructure and mechanical properties of Nb-alloyed austenitic CrNi steel fabricated by wire-feed electron beam additive manufacturing. <i>Materials Characterization</i> , 2022, 190, 112063.	4.4	9
15	Effect of hydrogenation on mechanical properties and tensile fracture mechanism of a high-nitrogen austenitic steel. <i>Journal of Materials Science</i> , 2017, 52, 4224-4233.	3.7	7
16	The Effect of Test Temperature on Deformation Microstructure and Fracture Mechanisms in CrMn High-Nitrogen Steels Alloyed (0-3 wt.%) with Vanadium. <i>Materials Science Forum</i> , 2018, 941, 27-32.	0.3	6
17	Effect of Ion-Plasma Nitriding on Phase Composition and Tensile Properties of AISI 321-Type Stainless Steel Produced by Wire-Feed Electron-Beam Additive Manufacturing. <i>Metals</i> , 2022, 12, 176.	2.3	5
18	Effect of compression nonequiality on shear-induced dilatation in a block-structured medium. <i>Physical Mesomechanics</i> , 2012, 15, 80-87.	1.9	4

#	ARTICLE	IF	CITATIONS
19	Effect of Grain Refinement on the Elemental Composition and Nanohardness of the Surface Layers in AISI 316L Austenitic Steel Subjected to Ion-Plasma Hardening. Defect and Diffusion Forum, 0, 385, 267-272.	0.4	4
20	Microstructural inhomogeneity of phase composition and grain structure in electron beam wire-feed additive manufactured AISI 304 stainless steel. AIP Conference Proceedings, 2019, , .	0.4	4
21	THE EFFECT OF NIOBIUM ON MICROSTRUCTURE AND MECHANICAL PROPERTIES OF AUSTENITIC CrNi STEEL PRODUCED BY WIRE-FEED ELECTRON BEAM ADDITIVE MANUFACTURING. Nanoscience and Technology, 2020, 11, 109-118.	1.8	4
22	Effect of vanadium-alloying on hydrogen embrittlement of austenitic high-nitrogen steels. Procedia Structural Integrity, 2018, 13, 1053-1058.	0.8	3
23	Effect of stacking fault energy on Hall-Petch relationship parameters of austenitic stainless steels. AIP Conference Proceedings, 2019, , .	0.4	3
24	On the Superplastic Deformation in Vanadium-Alloyed High-Nitrogen Steel. Metals, 2020, 10, 27.	2.3	3
25	Microstructure and mechanical properties of low-carbon steel fabricated by electron-beam additive manufacturing. Letters on Materials, 2021, 11, 427-432.	0.7	3
26	The Fundamental Regularities of the Evolution of Elastic Vortices Generated in the Surface Layers of Solids under Tangential Contact Loading. Lubricants, 2018, 6, 51.	2.9	2
27	A comparative study of the macroscopical and microscopical fracture mechanisms in cast and additively manufactured austenitic stainless steels. AIP Conference Proceedings, 2019, , .	0.4	2
28	The Influence of Phase Composition and Phase Distribution on Crack Formation and Fracture Mechanisms of Cr-Ni Steels Produced by the Method of 3D Electron-Beam Printing. Russian Physics Journal, 2020, 63, 917-925.	0.4	2
29	On Temperature Dependence of Microstructure, Deformation Mechanisms and Tensile Properties in Austenitic Cr-Mn Steel with Ultrahigh Interstitial Content C + N = 1.9 Mass.%. Metals, 2020, 10, 786.	2.3	2
30	Microstructure and phase composition of vanadium-alloyed high-nitrogen steel fabricated by additive manufacturing. AIP Conference Proceedings, 2020, , .	0.4	2
31	The Effect of Phase Transformations During Electron-Beam 3D-Printing and Post-Built Heat Treatment on Plastic Deformation and Fracture of Additively Manufactured High Nitrogen Cr-Mn Steel. Russian Physics Journal, 2021, 64, 1183-1190.	0.4	2
32	A theoretical study of the influence of technological friction stir welding parameters on weld structures. AIP Conference Proceedings, 2015, , .	0.4	1
33	Temperature Dependence of Tensile Deformation and Fracture Micromechanisms in V-Alloyed High-Nitrogen Steel: Effect of Solution-Treatment Temperature. Procedia Structural Integrity, 2018, 13, 1129-1134.	0.8	1
34	Influence of hydrogen-charging on microstructure and microhardness of high-nitrogen austenitic steel processed by high-pressure torsion. AIP Conference Proceedings, 2018, , .	0.4	1
35	The Influence of Warm Hot-Pressing on the Structure and Mechanical Properties of Stable Chromium-Nickel-Molybdenum Steel. Russian Physics Journal, 2018, 61, 1062-1069.	0.4	1
36	On the influence of post-built heat treatment on strength and ductility of AISI 304 steel produced by electron-beam additive technology. AIP Conference Proceedings, 2019, , .	0.4	1

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37	The Effect of Thermo-Mechanical Processing Regime on High-Temperature Tensile Properties of V-Alloyed High-Nitrogen Steel. <i>Solid State Phenomena</i> , 2020, 306, 53-61.	0.3	1
38	The influence of prior deformation on phase composition and strength properties of austenitic stainless steel in ion-plasma treatment. <i>Letters on Materials</i> , 2019, 9, 377-381.	0.7	1
39	Microstructure and phase composition of high-nitrogen steel fabricated by electron beam additive manufacturing. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	1
40	Influence of thermal and thermal-mechanical treatments on microstructure and mechanical properties of the multicomponent alloy FeCrMnNiCo _{0.85} C _{0.15} . <i>Letters on Materials</i> , 2021, 11, 375-381.	0.7	1
41	Theoretical investigation of influence of pore pressure on mechanical response of gas-filled permeable materials. , 2014, , .		0
42	The computer-aided simulation of deformation and fracture of water-saturated elastic porous material with hybrid cellular automaton method. , 2014, , .		0
43	Comparative analysis of different models of interphase boundaries in metal-ceramic composites. <i>AIP Conference Proceedings</i> , 2016, , .	0.4	0
44	Influence of thermomechanical treatments on mechanical properties and fracture mechanism of high-nitrogen austenitic steel. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	0
45	The effect of solution treatment regime on temperature dependence of 0.2% offset yield strength in V-alloyed high-nitrogen austenitic steel. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	0
46	Effect of age hardening on phase composition and microhardness of V-free and V-alloyed high-nitrogen austenitic steels. <i>AIP Conference Proceedings</i> , 2018, , .	0.4	0
47	The effect of solid-solution temperature on phase composition and tensile properties of vanadium-alloyed high interstitial steels. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	0
48	Hydrogen-Assisted Fracture Mechanisms in Ultrafine-Grained CrNi Austenitic Stainless Steels with Different Initial Microstructures. <i>Materials Science Forum</i> , 0, 941, 370-375.	0.3	0
49	On the influence of strain rate and deformation temperature on the peculiarities of plastic flow in vanadium-alloyed austenitic steel with high interstitial content. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
50	Mechanical properties and fracture micromechanisms in 316L stainless steel subjected to ion-plasma treatment with mixture of N, H and Ar gases. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
51	The change in solidification mode and phase composition in ϵ -321 stainless Steel/NiCr Alloy joint produced by Wire-feed electron beam melting. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
52	The peculiarities of hydrogen embrittlement of Nb-alloyed stainless steel fabricated by electron-beam additive manufacturing. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
53	Peculiarities of tensile deformation and fracture of high-nitrogen steel obtained by electron beam additive manufacturing. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0
54	Microstructure/mechanical properties relationship in high-nitrogen steel obtained by electron beam additive manufacturing and conventional casting. <i>AIP Conference Proceedings</i> , 2020, , .	0.4	0

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55	Hydrogen embrittlement of the additively manufactured Nb-free and Nb-alloyed austenitic steels. AIP Conference Proceedings, 2022, , .	0.4	0