Igor Y Litovchenko

List of Publications by Year
in descending order

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49 papers	387 citations	840776 11 h-index	839539 18 g-index
51 all docs	51 docs citations	51 times ranked	178 citing authors

#	Article	IF	Citations
1	The Microstructure and Mechanical Properties of Ferritic-Martensitic Steel EP-823 after High-Temperature Thermomechanical Treatment. Metals, 2022, 12, 79.	2.3	11
2	Effect of Multistage High Temperature Thermomechanical Treatment on the Microstructure and Mechanical Properties of Austenitic Reactor Steel. Metals, 2022, 12, 63.	2.3	6
3	Behavior of 12% Cr low-activation ferritic-martensitic steel EK-181 after holding in a static lead melt at 600 Â°Ð¡ for 3000 hours. Journal of Nuclear Materials, 2021, 545, 152754.	2.7	4
4	Structural Transformations and Mechanical Properties of Metastable Austenitic Steel under High Temperature Thermomechanical Treatment. Metals, 2021, 11, 645.	2.3	12
5	Features of Phase Transformations of Low-activation 12%-Chromium Ferritic-Martensitic Steel Ek-181. Russian Physics Journal, 2020, 62, 2314-2318.	0.4	3
6	Microstructure and Mechanical Properties of Austenitic Steel EK-164 After Thermomechanical Treatments. Russian Physics Journal, 2019, 62, 698-704.	0.4	11
7	Atomic Models of Mechanical Twinning and <110>-Reorientations in BCC-Crystals. Russian Physics Journal, 2019, 62, 886-892.	0.4	4
8	Microstructure and mechanical properties of ferritic-martensitic steel EP-823 after high-temperature thermomechanical treatment. AIP Conference Proceedings, 2019, , .	0.4	4
9	Microstructure and elemental composition of ferritic-martensitic steel EK-181 after a prolonged contact with a coolant. AIP Conference Proceedings, 2019, , .	0.4	0
10	The Influence of Deformation and Short-Term Hightemperature Annealing on the Microstructure and Mechanical Properties of Austenitic Steel 17Cr-14Ni-3Mo (316 Type). Russian Physics Journal, 2019, 62, 1511-1517.	0.4	5
11	Deformed microstructure of ferritic-martensitic steel EK-181. AIP Conference Proceedings, 2019, , .	0.4	1
12	Effect of high-temperature thermomechanical treatments on microstructure and mechanical properties of a high-nitrogen austenitic steel. AIP Conference Proceedings, 2019, , .	0.4	2
13	Structural-Phase State, Elastic Stress, and Functional Properties of Nanocomposite Coatings Based on Amorphous Carbon. Physical Mesomechanics, 2019, 22, 488-495.	1.9	6
14	Nucleation of dislocations and twins in fcc nanocrystals: Dynamics of structural transformations. Journal of Materials Science and Technology, 2019, 35, 201-206.	10.7	46
15	Temperature Dependences of Mechanical Properties and Fracture Features of Low-Activation Ferritic-Martensitic EK-181 Steel in a Temperature Range from â€“ 196 to 720Â°C. Physics of Atomic Nuclei, 2018, 81, 1024-1032.	0.4	11
16	Thermal Stability of the Microstructure and Mechanical Properties of the Ferritic-Martensitic Steel EK-181. Russian Physics Journal, 2018, 61, 1536-1540.	0.4	2
17	Mechanical properties and fracture of heat-resistant ferritic-martensitic steels EK-181, ChS-139 and EP-823 at the temperatures from â€“196 to 720Â°C. AIP Conference Proceedings, 2018, , .	0.4	0
18	A comparative investigation of mechanical properties of the ferritic-martensitic steel EK-181 in the temperature range 700â€“800Â°C after high-temperature thermomechanical and traditional heat treatments. AIP Conference Proceedings, 2018, , .	0.4	3

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19	Strengthening of stable Cr-Ni austenitic stainless steel under thermomechanical treatments. AIP Conference Proceedings, 2017, , .	0.4	1
20	Effect of high-temperature thermomechanical treatment in the austenite region on microstructure and mechanical properties of low-activated 12% chromium ferritic-martensitic steel EK-181. Technical Physics, 2017, 62, 736-740.	0.7	18
21	Mechanical properties and fracture features of low-activation ferritic-martensitic steel EK-181 at subzero temperatures. AIP Conference Proceedings, 2017, , .	0.4	0
22	Mechanisms for improving strength of metastable austenitic steel by thermomechanical treatments. AIP Conference Proceedings, 2017, , .	0.4	0
23	Strengthening mechanisms of heat-resistant 12% Cr ferritic-martensitic steels after different modes of heat treatment. AIP Conference Proceedings, 2016, , .	0.4	3
24	Martensitic transformations and the evolution of the defect microstructure of metastable austenitic steel during severe plastic deformation by high-pressure torsion. Physics of Metals and Metallography, 2016, 117, 847-856.	1.0	14
25	Features of deformation localization in stable austenitic steel under thermomechanical treatment. AIP Conference Proceedings, 2016, , .	0.4	1
26	The Features of Microstructure and Mechanical Properties of Metastable Austenitic Steel Subjected to Low-Temperature and Subsequent Warm Deformation. Russian Physics Journal, 2016, 59, 782-787.	0.4	12
27	Effect of thermomechanical treatment modes on structural-phase states and mechanical properties of metastable austenitic steel. AIP Conference Proceedings, 2016, , .	0.4	4
28	Thermal stability of the microstructure of 12% chromium ferriticâ€“martensitic steels after long-term aging at high temperatures. Technical Physics, 2016, 61, 209-214.	0.7	20
29	Structureâ€“phase transformations and physical properties of ferriticâ€“martensitic 12% chromium steels EK-181 and ChS-139. Technical Physics, 2016, 61, 97-102.	0.7	15
30	Effect of thermomechanical treatments on the formation of submicrocrystalline structural states and mechanical properties of metastable austenitic steel. Letters on Materials, 2016, 6, 290-293.	0.7	3
31	Microstructure and mechanical properties of heat-resistant 12% Cr ferritic-martensitic steel EK-181 after thermomechanical treatment. AIP Conference Proceedings, 2015, , .	0.4	1
32	The features of microstructure and mechanical properties of austenitic steel after direct and reverse martensitic transformations. AIP Conference Proceedings, 2015, , .	0.4	4
33	Investigation of the microstructure, mechanical properties and thermal stability of nanocomposite coatings based on amorphous carbon. AIP Conference Proceedings, 2015, , .	0.4	0
34	Thermal Stability of Ti-C-Ni-Cr and Ti-C-Ni-Cr-Al-Si Nanocomposite Coatings. Journal of Physics: Conference Series, 2015, 652, 012057.	0.4	7
35	Features of structure-phase state of multielement nanocomposite coatings based on amorphous carbon. , 2014, , .		2
36	The microstructural stability of low-activation 12%-chromium ferritic-martensitic steel EK-181 during thermal aging. AIP Conference Proceedings, 2014, , .	0.4	2

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37	Features of deformed structure of metastable austenitic steel after deformation-induced direct and reverse martensitic transformations. , 2014, , .		2
38	The effect of tempering temperature on the features of phase transformations in the ferriticâ€“martensitic steel EK-181. Journal of Nuclear Materials, 2014, 455, 496-499.	2.7	7
39	The effect of heat treatment on the microstructure and mechanical properties of heat-resistant ferriticâ€“martensitic steel EK-181. Journal of Nuclear Materials, 2014, 455, 665-668.	2.7	13
40	The Effect of Heat-Treatment Modes on Microstructure of Reduced-Activation Ferritic-Martensitic Steel EK-181. Russian Physics Journal, 2013, 56, 542-545.	0.4	6
41	Microstructure of EK-181 ferritic-martensitic steel after heat treatment under various conditions. Technical Physics, 2012, 57, 48-54.	0.7	20
42	Evolution of structural and phase states at large plastic deformations of an austenitic steel 17Cr-14Ni-2Mo. Physics of Metals and Metallography, 2011, 112, 412-423.	1.0	22
43	Regularities and mechanisms of mechanical twinning in TiNi alloys. Physical Mesomechanics, 2007, 10, 190-202.	1.9	3
44	Crystal-lattice distortions during mechanical twinning of the B2 phase of titanium nickelide via the mechanism of local reversible martensitic transformations. Physics of Metals and Metallography, 2006, 101, 223-230.	1.0	4
45	Crystal-lattice distortions upon the formation of localized-deformation bands via combined forward-plus-reverse martensitic transformations. Physics of Metals and Metallography, 2006, 101, 296-302.	1.0	2
46	Atomic models of the nucleation of dislocations and mechanical twinning in fcc crystals. Doklady Physics, 2005, 50, 401-404.	0.7	7
47	Mechanism of deformation and crystal lattice reorientation in strain localization bands and deformation twins of the B2 phase of titanium nickelide. Acta Materialia, 2004, 52, 2067-2074.	7.9	56
48	Reversible Martensitic Transformation Produced by Severe Plastic Deformation of Metastable Austenitic Steel. Materials Science Forum, 0, 738-739, 491-495.	0.3	5
49	Models of Dislocation Formation and Mechanical Twinning by Local Reversible Martensitic Transformations in FCC Nanocrystals. Advanced Materials Research, 0, 1013, 234-241.	0.3	2