Anatolii Orishich

List of Publications by Year in descending order

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73 papers	494 citations	687363 13 h-index	752698 20 g-index
73 all docs	73 docs citations	73 times ranked	224 citing authors

#	Article	IF	Citations
1	Mathematical modelling of striation formation in oxygen laser cutting of mild steel. Journal Physics D: Applied Physics, 2006, 39, 4236-4244.	2.8	45
2	Creation of heterogeneous materials on the basis of B4C and Ni powders by the method of cold spraying with subsequent layer-by-layer laser treatment. Journal of Applied Mechanics and Technical Physics, 2017, 58, 947-955.	0.5	35
3	Investigation of the structure and properties of titanium-stainless steel permanent joints obtained by laser welding with the use of intermediate inserts and nanopowders. Thermophysics and Aeromechanics, 2015, 22, 135-142.	0.5	26
4	Microstructure of WCâ€“Co hard alloy surface after laser treatment. Surface Engineering, 2015, 31, 74-77.	2.2	25
5	Laser welding of stainless steel to titanium using explosively welded composite inserts. International Journal of Advanced Manufacturing Technology, 2017, 90, 3037-3043.	3.0	22
6	Scaling laws for the laser-oxygen cutting of thick-sheet mild steel. International Journal of Machine Tools and Manufacture, 2009, 49, 1152-1154.	13.4	21
7	Numerical analysis of the effect of the TEM00radiation mode polarisation on the cut shape in laser cutting of thick metal sheets. Quantum Electronics, 2005, 35, 200-204.	1.0	20
8	Experimental optimisation of the gas-assisted laser cutting of thick steel sheets. Quantum Electronics, 2009, 39, 547-551.	1.0	20
9	Mechanical characteristics of high-quality laser cutting of steel by fiber and CO2 lasers. Journal of Applied Mechanics and Technical Physics, 2015, 56, 726-735.	0.5	19
10	Energy balance in high-quality cutting of steel by fiber and CO2 lasers. Journal of Applied Mechanics and Technical Physics, 2017, 58, 371-378.	0.5	19
11	Effect of Heat Treatment on Mechanical and Microstructural Properties of the Welded Joint of the Alâ€“Mgâ€“Li Alloy Obtained by Laser Welding. Journal of Applied Mechanics and Technical Physics, 2018, 59, 561-568.	0.5	16
12	Laser welding of the high-strength Alâ€“Cuâ€“Li alloy. International Journal of Advanced Manufacturing Technology, 2018, 94, 2217-2227.	3.0	15
13	High-power repetitively pulsed CO₂laser with mechanical Q-switching and its application to studies in aerodynamic installations. Quantum Electronics, 2011, 41, 1027-1032.	1.0	14
14	Experimental study of laser-oxygen cutting of low-carbon steel using fibre and CO₂lasers under conditions of minimal roughness. Quantum Electronics, 2014, 44, 970-974.	1.0	14
15	High-quality laser cutting of stainless steel in inert gas atmosphere by ytterbium fibre and CO2lasers. Quantum Electronics, 2014, 44, 233-238.	1.0	13
16	Effect of Mg and Cu on mechanical properties of high-strength welded joints of aluminum alloys obtained by laser welding. Journal of Applied Mechanics and Technical Physics, 2017, 58, 939-946.	0.5	13
17	Laser welding of stainless steel with a titanium alloy with the use of a multilayer insert obtained in an explosion. Combustion, Explosion and Shock Waves, 2014, 50, 483-487.	0.8	12
18	Investigation of the technology of laser welding of aluminum alloy 1424. Doklady Physics, 2015, 60, 533-538.	0.7	11

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19	Optical discharge with absorption of repetitive CO₂laser pulses in supersonic air flow: wave structure and condition of a quasi-steady state. Quantum Electronics, 2014, 44, 836-840.	1.0	10
20	Formation of an optical pulsed discharge in a supersonic air flow by radiation of a repetitively pulsed CO₂laser. Quantum Electronics, 2012, 42, 843-847.	1.0	9
21	Experimental comparison of laser energy losses in high-quality laser-oxygen cutting of low-carbon steel using radiation from fibre and CO₂lasers. Quantum Electronics, 2015, 45, 873-878.	1.0	9
22	Investigation of laser-welded titanium and stainless steel specimens using digital radiography methods. Russian Journal of Nondestructive Testing, 2012, 48, 238-244.	0.9	8
23	The influence of the thermal wake due to pulsating optical discharge on the aerodynamic-drag force. Thermophysics and Aeromechanics, 2018, 25, 257-264.	0.5	8
24	Energy characteristics of laser-oxygen cutting of steel by CO2-laser radiation. Quantum Electronics, 2012, 42, 640-644.	1.0	7
25	Development of a technology for laser welding of the 1424 aluminum alloy with a high strength of the welded joint. Journal of Applied Mechanics and Technical Physics, 2015, 56, 945-950.	0.5	7
26	The Utmost Thickness of the Cut Sheet for the Qualitative Oxygen-assisted Laser Cutting of Low-carbon Steel. Physics Procedia, 2016, 83, 296-301.	1.2	7
27	Ultimate energy characteristics of a mechanically Q-switched CO2 LASER. Technical Physics Letters, 2014, 40, 170-173.	0.7	6
28	Laser cutting of thick steel sheets using supersonic oxygen jets. Quantum Electronics, 2007, 37, 891-892.	1.0	5
29	The structure and mechanical properties of VT23 laser-welded joints. AIP Conference Proceedings, 2016, , .	0.4	5
30	Craterlike structures on the cut surface after oxygen-assisted laser cutting of steel. Journal of Laser Applications, 2016, 28, 012007.	1.7	5
31	The development of heterogeneous materials based on Ni and B₄C powders using a cold spray and stratified selective laser melting technologies. Journal of Physics: Conference Series, 2018, 946, 012005.	0.4	5
32	Investigation of the microstructure of Ni and B4C ceramic-metal mixtures obtained by cold spray coating and followed by laser cladding. AIP Conference Proceedings, 2017, , .	0.4	4
33	EFFECT OF LASER RADIATION ON THE STRUCTURE OF METALâ€“CERAMIC MIXTURES BASED ON BORON CARBIDE. International Journal of Nanomechanics Science and Technology, 2017, 8, 55-66.	0.5	4
34	Optical breakdown in supersonic air jet. Technical Physics Letters, 2012, 38, 70-73.	0.7	3
35	Study of spectral characteristics of radiation from a thermal wake of a pulsating optical discharge in a supersonic air flow. Quantum Electronics, 2015, 45, 973-978.	1.0	3
36	The investigation of ultrasonic mechanical forging influence on the structure and mechanical properties of VT23 welded joints by methods of laser and electron beam welding. AIP Conference Proceedings, 2016, , .	0.4	3

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37	Cold spraying of aluminum bronze on profiled submillimeter cermet structures formed by laser cladding. AIP Conference Proceedings, 2017, , .	0.4	3
38	Beam polarization effect on the surface quality during steel cutting by a CO2 laser. Journal of Laser Applications, 2018, 30, .	1.7	3
39	The effect of vortex gas flow on the surface quality for the oxygen-laser cutting of mild steel. Doklady Physics, 2009, 54, 72-76.	0.7	2
40	Flow fluctuation measurement in the flow-through path of continuous electric-discharge CO2-laser contour. Thermophysics and Aeromechanics, 2011, 18, 65-71.	0.5	2
41	Influence of an optical pulsed discharge on the structure of a supersonic air flow. Quantum Electronics, 2014, 44, 83-88.	1.0	2
42	Acoustic-emission inspection of flaws during laser bonding of articles made of VT20 titanium alloy. Russian Journal of Nondestructive Testing, 2017, 53, 430-435.	0.9	2
43	Space-saving electric-discharge CO 2 laser of high (up to 14kW) radiation power with convective cooling of the working medium and gas pumping by an extended disc fan. , 2006, , .		1
44	Development of resonators for high-power CO 2 lasers. , 2007, , .		1
45	High-power repetition rate Q-switched CO 2 laser and its application to study the optical breakdown in a supersonic air stream. , 2008, , .		1
46	On similarity laws for gas-laser cutting of thick steel sheets. Doklady Physics, 2009, 54, 413-417.	0.7	1
47	Metal cutting by radiation from a CO2laser with a self-filtering cavity. Quantum Electronics, 2009, 39, 191-196.	1.0	1
48	Energy conditions of high quality laser-oxygen cutting of mild steel. Proceedings of SPIE, 2010, , .	0.8	1
49	Energy conditions of gas laser cutting of thick steel sheets. Journal of Applied Mechanics and Technical Physics, 2011, 52, 340-346.	0.5	1
50	Optimum power consumption at high-quality laser-oxygen cutting. Proceedings of SPIE, 2012, , .	0.8	1
51	Energy characteristics of the CO₂laser cutting of thick steel sheets. Proceedings of SPIE, 2013, , .	0.8	1
52	Optimization of laser cladding on the base of additive technologies of metal-ceramic powders. AIP Conference Proceedings, 2017, , .	0.4	1
53	Optimization of laser cladding of cold spray coatings with B4C and Ni powders. AIP Conference Proceedings, 2017, , .	0.4	1
54	Investigation of the Microstructure of High-Strength Laser Welded Joints of Aluminum-Lithium Aeronautical Alloys. Metal Working and Material Science, 2018, 20, 50-62.	0.3	1

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55	Technological continuous electric-discharge CO 2 laser of 8-KW power with cross gas pumping and high-quality radiation. , 2005, , .		0
56	Crisis of consumption in diametrical disc pumps at low pressure. Doklady Physics, 2006, 51, 617-620.	0.7	0
57	Formation of a two-phase vortex structure in paraffin melt subjected to an air jet in a narrow channel. Doklady Physics, 2007, 52, 346-350.	0.7	0
58	Operation features of the diametrical disc fan at low pressures. Thermophysics and Aeromechanics, 2008, 15, 159-165.	0.5	0
59	Experimental search of similarity criteria for the high-quality cutting of mild steel. , 2008, , .		0
60	<title>Optical breakdown and absorption of radiation of powerful pulse-periodic CO<formula><inf><roman>2</roman></inf></formula> laser in a supersonic air stream</title>. , 2010, , .		0
61	Similarity of heat fluxes upon laser oxygen cutting of steel. Doklady Physics, 2011, 56, 12-15.	0.7	0
62	Energy characteristics of cutting of thick steel sheets by a CO2and fiber laser. , 2013, , .		0
63	Experimental comparison of the oxygen-assist laser cutting with a fiber and CO2-laser under the condition of minimal roughness. , 2014, , .		0
64	Experimental comparison of the cutting speed and quality for mild and stainless steel sheets with fiber and CO₂lasers. Proceedings of SPIE, 2014, , .	0.8	0
65	Creation of heterogeneous materials by laser cladding of heterogeneous powder compositions on the base of steel and nickel. AIP Conference Proceedings, 2016, , .	0.4	0
66	Properties of welded joints in laser welding of aeronautic aluminum-lithium alloys. Proceedings of SPIE, 2017, , .	0.8	0
67	Experimental investigation of the effect of the laser beam polarization state on the quality of steel sheet cutting. AIP Conference Proceedings, 2017, , .	0.4	0
68	Influence of nanomodification additives on the properties of multilayer composite coating obtained in laser surfacing. , 2017, , .		0
69	Craterlike structures on the laser cut surface. AIP Conference Proceedings, 2017, , .	0.4	0
70	Investigation of the structure and properties of a composite insert applied at laser welding of steel with titanium. AIP Conference Proceedings, 2017, , .	0.4	0
71	Investigation of the effect of an optical pulsating discharge on the modelâ€™s aerodynamic drag in supersonic air flow. AIP Conference Proceedings, 2017, , .	0.4	0
72	Microcraters and surface quality in laser oxygen cutting of thick steel sheets. Journal of Laser Applications, 2018, 30, 022003.	1.7	0

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73	Optimal choice of the technology of thick steel sheets laser cutting. Metal Working and Material Science, 2016, , 15-22.	0.3	0