Serguei P Murzin

List of Publications by Year
in descending order

58	741	516710 16	642732 23
papers	citations	h-index	g-index

58	58	58	172
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Synthesis of nanoporous structures in metallic materials under laser action. Optics and Lasers in Engineering, 2011, 49, 1264-1267.	3.8	67
2	Microstructuring the surface of silicon carbide ceramic by laser action for reducing friction losses in rolling bearings. Optics and Laser Technology, 2017, 88, 96-98.	4.6	36
3	METHOD OF COMPOSITE NANOMATERIALS SYNTHESIS UNDER METAL/OXIDE PULSE-PERIODIC LASER TREATMENT. Computer Optics, 2014, 38, 469-475.	2.2	33
4	The Intonationâ€“Syntax Interface in the Speech of Individuals With Parkinsonâ€™s Disease. Journal of Speech, Language, and Hearing Research, 2011, 54, 19-32.	1.6	26
5	Analysis of the Advantages of Laser Processing of Aerospace Materials Using Diffractive Optics. Metals, 2021, 11, 963.	2.3	26
6	Exposure to laser radiation for creation of metal materials nanoporous structures. Optics and Laser Technology, 2013, 48, 509-512.	4.6	24
7	Method for estimating the uncertainty of the spatial mating of high-precision optical and mechanical parts. Computer Optics, 2016, 40, 360-369.	2.2	23
8	Formation of nanoporous structures in metallic materials by pulse-periodic laser treatment. Optics and Laser Technology, 2015, 72, 48-52.	4.6	22
9	Laser welding of dissimilar metallic materials with use of diffractive optical elements. Computer Optics, 2017, 41, 848-855.	2.2	22
10	Coloration of a copper surface by nanostructuring with femtosecond laser pulses. Optics and Laser Technology, 2019, 119, 105574.	4.6	20
11	APPLICATION OF RADIATION FOCUSATORS FOR CREATION OF NANOPOROUS METAL MATERIALS WITH HIGH SPECIFIC SURFACE AREA BY LASER ACTION. Computer Optics, 2013, 37, 226-232.	2.2	20
12	DETERMINATION OF CONDITIONS FOR THE LASER-INDUCED INTENSIFICATION OF MASS TRANSFER PROCESSES IN THE SOLID PHASE OF METALLIC MATERIALS. Computer Optics, 2015, 39, 392-396.	2.2	19
13	A Study of Vibration Characteristics and Determination of the Conditions of Nanopores Formation in Metallic Materials during Laser Action. Procedia Engineering, 2015, 106, 266-271.	1.2	18
14	THERMOCYCLING WITH PULSE-PERIODIC LASER ACTION FOR FORMATION OF NANOPOROUS STRUCTURE IN METAL MATERIAL. Computer Optics, 2013, 37, 99-104.	2.2	18
15	Formation of structures in materials by laser treatment to enhance the performance characteristics of aircraft engine parts. Computer Optics, 2016, 40, 353-359.	2.2	18
16	Influence of Conditions of the Samples Fixation on the Intensity of the Nanoporous Structure Formation in the Metallic Material by Laser Action with Thermocycling. Procedia Engineering, 2015, 106, 272-276.	1.2	17
17	Study of Cu-Zn Alloy Objects Vibration Characteristics During Laser-induced Nanopores Formation. Procedia Engineering, 2017, 176, 552-556.	1.2	16
18	Joining of Aluminium Alloy and Steel by Laser Assisted Reactive Wetting. Lasers in Manufacturing and Materials Processing, 2018, 5, 1-15.	2.2	16

#	Article	IF	Citations
19	Arrays Formation of Zinc Oxide Nano-Objects with Varying Morphology for Sensor Applications. Sensors, 2020, 20, 5575.	3.8	16
20	SYNTHESIS OF METAL MATERIALS NANOPOROUS STRUCTURES WITH CYCLIC ELASTO-PLASTIC DEFORMATION UNDER LASER TREATMENT USING RADIATION FOCUSATORS. Computer Optics, 2014, 38, 249-255.	2.2	16
21	Algorithm for calculation of the power density distribution of the laser beam to create a desired thermal effect on technological objects. Computer Optics, 2016, 40, 679-684.	2.2	16
22	Particularly Selective Sintering of Metal Powders by Pulsed Laser Radiation. Key Engineering Materials, 0, 685, 403-407.	0.4	15
23	Formation of ZnO / CuO Heterostructure Caused by Laser-induced Vibration Action. Procedia Engineering, 2017, 176, 546-551.	1.2	15
24	Determining ways of improving the tribological properties of the silicon carbide ceramic using a pulse-periodic laser treatment. Computer Optics, 2015, 39, 64-69.	2.2	15
25	Laser beam shaping for modification of materials with ferritic-martensitic structure. Procedia Engineering, 2017, 201, 164-168.	1.2	14
26	Simulation of forming processes with local heating of dual phase steels with use of laser beam shaping systems. Computer Optics, 2016, 40, 659-667.	2.2	14
27	Improving Tribological Properties of Stainless Steel Surfaces by Femtosecond Laser Irradiation. Coatings, 2020, 10, 606.	2.6	13
28	Laser Irradiation for Enhancing Mass Transfer in the Solid Phase of Metallic Materials. Metals, 2021, 11, 1359.	2.3	13
29	FEATURES OF CHANGES IN THE NANOSTRUCTURE AND COLORIZING OF COPPER DURING SCANNING WITH A FEMTOSECOND LASER BEAM. Computer Optics, 2017, 41, 504-509.	2.2	13
30	Selective modification of dual phase steel DP 1000 by laser action using diffractive optical element. Computer Optics, 2019, 43, .	2.2	13
31	Softening of Low-alloyed Titanium Billets with Laser Annealing. IOP Conference Series: Materials Science and Engineering, 2018, 302, 012070.	0.6	10
32	Creation of ZnO-based nanomaterials with use synergies of the thermal action and laser-induced vibrations. Journal of Physics: Conference Series, 2018, 1096, 012150.	0.4	10
33	Creation of zinc oxide based nanomaterials by repetitively pulsed laser treatment. Journal of Physics: Conference Series, 2019, 1368, 022004.	0.4	10
34	Ultraviolet Nanosecond Laser Treatment to Reduce the Friction Coefficient of Silicon Carbide Ceramics. Applied Sciences (Switzerland), 2021, 11, 11906.	2.5	10
35	Laser Welding of Metal-Polymer-Metal Sandwich Panels. Metals, 2022, 12, 256.	2.3	9
36	Pulse-periodic laser action to create an ordered heterogeneous structure based on copper and zinc oxides. Journal of Physics: Conference Series, 2018, 1096, 012139.	0.4	8

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37	Study of the action of a femtosecond laser beam on samples of a Cu-Zn alloy. Journal of Physics: Conference Series, 2018, 1096, 012138.	0.4	8
38	Experimental study of spatial frequency transition of laser induced periodic surface structures. Journal of Physics: Conference Series, 2021, 1745, 012017.	0.4	5
39	Formation of A Non-detachable Welded Titanium-aluminium Compound by Laser Action. IOP Conference Series: Materials Science and Engineering, 2018, 302, 012072.	0.6	4
40	Colorization of copper surfaces by nanostructure modifications with ultrashort laser pulses. Journal of Physics: Conference Series, 2019, 1368, 022063.	0.4	4
41	Influence of initial surface condition on intensity of porous structure formation in a metallic material during laser action. , 2016, , .		4
42	Determination of conditions for nanoporous structure formation in a metallic material by pulse-periodic laser action. , 2016, , .		4
43	Determination the allowable error to adjustment of a diffractive optical element and the accuracy demanded to set the parameters of the focused beam. , 2017, , .		4
44	Laser beam shaping with purposefully changing of spatial power distribution. , 2018, , .		4
45	Calculation of thermal processes during laser treatment of dual phase steel using computer-generated diffractive optical element. , 2020, , .		4
46	Conditions improving of laser heating for forming of materials with a ferritic-martensitic structure. Journal of Physics: Conference Series, 2019, 1368, 022023.	0.4	3
47	Testing of diffractive optical element as part of specific CO₂ laser equipment for metallic materials modification. Journal of Physics: Conference Series, 2019, 1368, 022025.	0.4	3
48	Modelling of temperature fields in DP1000 steel during laser treatment using diffractive optical elements. Journal of Physics: Conference Series, 2021, 1745, 012016.	0.4	3
49	Development of mathematical model of laser treatment heat processes using diffractive optical elements. , 2017, , .		3
50	Study of the beam intensity redistribution in the focal plane of diffractive optical element. , 2019, , .		3
51	Study of structure of dual phase steel after laser heat treatment using moving distributed surface heat sources. , 2020, , .		3
52	Use of diffractive optical elements for beam intensity redistribution. , 2020, , .		3
53	Study of the Formation of Zinc Oxide Nanowires on Brass Surface After Pulse-Periodic Laser Treatment. Lecture Notes in Mechanical Engineering, 2022, , 335-343.	0.4	3
54	Improving the Quality of Laser-Welded Butt Joints of Metalâ€“Polymer Sandwich Composites. Applied Sciences (Switzerland), 2022, 12, 7099.	2.5	3

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55	Redistribution of the laser beam power using diffractive optical elements. , 2017, , .		2
56	Creation of Submicroporous and Nanoporous Structures in Metallic Materials by Laser Thermocycling as Eutectic Is Reached. Advanced Materials Research, 2015, 1088, 245-249.	0.3	0
57	Modification of the surface of silicon carbide parts by laser treatment for improving their tribological properties. Vestnik of Samara University: Aerospace and Mechanical Engineering, 2015, , 9.	0.2	0
58	Determination of the conditions of nanoporous structures formation in metal materials by pulse-periodic laser treatment. Vestnik of Samara University: Aerospace and Mechanical Engineering, 2015, , 67.	0.2	0