

Alexander Gerasimenko

List of Publications by Year in descending order

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65
papers

495
citations

623188

14
h-index

752256

20
g-index

65
all docs

65
docs citations

65
times ranked

232
citing authors

#	ARTICLE	IF	CITATIONS
1	Conjugates of thermally stable phthalocyanine J-type dimers with single-walled carbon nanotubes for enhanced optical limiting applications. <i>Optics and Laser Technology</i> , 2019, 117, 272-279.	2.2	39
2	Laser structuring of carbon nanotubes in the albumin matrix for the creation of composite biostructures. <i>Journal of Biomedical Optics</i> , 2017, 22, 065003.	1.4	31
3	Electroactive Polymer-Based Composites for Artificial Muscle-like Actuators: A Review. <i>Nanomaterials</i> , 2022, 12, 2272.	1.9	30
4	Thermally stable J-type phthalocyanine dimers as new non-linear absorbers for low-threshold optical limiters. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 15964-15971.	1.3	26
5	The study of the interaction mechanism between bovine serum albumin and single-walled carbon nanotubes depending on their diameter and concentration in solid nanocomposites by vibrational spectroscopy. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 227, 117682.	2.0	23
6	Laser fabrication of composite layers from biopolymers with branched 3D networks of single-walled carbon nanotubes for cardiovascular implants. <i>Composite Structures</i> , 2021, 260, 113517.	3.1	23
7	High-performance optical limiters based on stable phthalocyanine J-type dimers. <i>Chemical Physics Letters</i> , 2016, 661, 269-273.	1.2	19
8	Novel octabromo-substituted lanthanide(III) phthalocyanines – Prospective compounds for nonlinear optics. <i>Dyes and Pigments</i> , 2021, 185, 108871.	2.0	18
9	Flexible Strain-Sensitive Silicone-CNT Sensor for Human Motion Detection. <i>Bioengineering</i> , 2022, 9, 36.	1.6	18
10	Laser System with Adaptive Thermal Stabilization for Welding of Biological Tissues. <i>Bio-Medical Engineering</i> , 2016, 49, 344-348.	0.3	17
11	Influence of laser structuring and barium nitrate treatment on morphology and electrophysical characteristics of vertically aligned carbon nanotube arrays. <i>Diamond and Related Materials</i> , 2019, 96, 104-111.	1.8	16
12	Frame Coating of Single-Walled Carbon Nanotubes in Collagen on PET Fibers for Artificial Joint Ligaments. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6163.	1.8	16
13	Electrically Conductive Networks from Hybrids of Carbon Nanotubes and Graphene Created by Laser Radiation. <i>Nanomaterials</i> , 2021, 11, 1875.	1.9	16
14	Use of Indocyanine Green in Nanocomposite Solders to Increase Strength and Homogeneity in Laser Welding of Tendons. <i>Bio-Medical Engineering</i> , 2017, 50, 310-313.	0.3	15
15	Biocompatible SWCNT Conductive Composites for Biomedical Applications. <i>Nanomaterials</i> , 2020, 10, 2492.	1.9	15
16	A study of preparation techniques and properties of bulk nanocomposites based on aqueous albumin dispersion. <i>Optics and Spectroscopy (English Translation of Optika i Spektroskopiya)</i> , 2013, 115, 283-289.	0.2	14
17	Threshold effect under nonlinear limitation of the intensity of high-power light. <i>Quantum Electronics</i> , 2015, 45, 315-320.	0.3	13
18	Spectral analysis combined with nonlinear optical measurement of laser printed biopolymer composites comprising chitosan/SWCNT. <i>Analytical Biochemistry</i> , 2020, 598, 113710.	1.1	13

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19	Investigation of nonlinear characteristics of intensity limiters of high-power laser radiation. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2014, 116, 454-461.	0.2	12
20	Knee Joint Ligament Implants with Composite Nanocoatings. Bio-Medical Engineering, 2016, 50, 206-209.	0.3	11
21	Nonlinear absorption in pyran dyes. Optical Memory and Neural Networks (Information Optics), 2009, 18, 218-222.	0.4	10
22	Nanocomposite solder for laser welding of biological tissues. Semiconductors, 2011, 45, 1713-1718.	0.2	9
23	Protein-Polymer Matrices with Embedded Carbon Nanotubes for Tissue Engineering: Regularities of Formation and Features of Interaction with Cell Membranes. Materials, 2019, 12, 3083.	1.3	9
24	Effects of pulsed and continuous-wave laser radiation on the fabrication of tissue-engineered composite structures. Optical Engineering, 2020, 59, 1.	0.5	9
25	Interfaces Based on Laser-Structured Arrays of Carbon Nanotubes with Albumin for Electrical Stimulation of Heart Cell Growth. Polymers, 2022, 14, 1866.	2.0	8
26	Reconstruction of Soft Biological Tissues Using Laser Soldering Technology with Temperature Control and Biopolymer Nanocomposites. Bioengineering, 2022, 9, 238.	1.6	8
27	Laser Technology for the Formation of Bioelectronic Nanocomposites Based on Single-Walled Carbon Nanotubes and Proteins with Different Structures, Electrical Conductivity and Biocompatibility. Applied Sciences (Switzerland), 2021, 11, 8036.	1.3	7
28	Influence of edge defects on Raman spectra of graphene. Letters on Materials, 2020, 10, 89-93.	0.2	7
29	Spectral Studies of Biodegradation and Hemolysis Caused by Contact of Bulk and Film Nanocomposites with Biological Fluids. Bio-Medical Engineering, 2017, 51, 16-19.	0.3	6
30	Limitation of laser intensity using binary stratifying solutions. Quantum Electronics, 2012, 42, 591-594.	0.3	5
31	Fontan Hemodynamics Investigation via Modeling and Experimental Characterization of Idealized Pediatric Total Cavopulmonary Connection. Applied Sciences (Switzerland), 2020, 10, 6910.	1.3	5
32	Chitosan-Based Material for Cellular Tissue Engineering. Bio-Medical Engineering, 2018, 52, 46-50.	0.3	4
33	Two-Photon Polymerization of Albumin Hydrogel Nanowires Strengthened with Graphene Oxide. Biomimetics, 2021, 6, 66.	1.5	4
34	Research of nonlinear characteristics of albumin and collagen dispersions with single-walled carbon nanotubes. , 2018, , .		3
35	Electrical Stimulation of Human Connective Tissue Cells on Layers of Composite Structures with a Nanocarbon Framework. Bio-Medical Engineering, 2019, 52, 301-304.	0.3	3
36	A Study of the Biocompatibility of Carbon Nanotube-Based Nanocomposite Structures Implanted into Muscle Tissue. Bio-Medical Engineering, 2019, 53, 240-243.	0.3	2

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37	Electrical stimulation of cell growth on layers of composite material based on carbon nanotubes and polymers. AIP Conference Proceedings, 2019, , .	0.3	2
38	Laser-induced modification of amorphous GST225 phase change materials. Materiaux Et Techniques, 2019, 107, 307.	0.3	2
39	Reverse saturation absorption in PK 792 and PK 7098 dyes. Bulletin of the Lebedev Physics Institute, 2009, 36, 287-292.	0.1	1
40	Investigation of the Electrical Stimulation Effect on Cell Growth on Bioengineering Nanocomposite Substrates. , 2019, , .		1
41	The Effect of Laser Structuring of Carbon Nanotubes on the Proliferation of Chondroblasts and Mesenchymal Stem Cells. Bio-Medical Engineering, 2020, 53, 397-401.	0.3	1
42	Possibility Noninvasive Detection Magnetic Particles in Biological Objects. Engineering Proceedings, 2021, 6, 61.	0.4	1
43	Laser nanocomposites based on proteins and carbon nanotubes for restoration of biological tissues. , 2018, , .		1
44	Threshold effect in optical limiters based on conjugates J-type phthalocyanine dimers Zn and Mg with single-walled carbon nanotubes. , 2018, , .		1
45	Layers of Composite Nanomaterials as Prototype of a Tensoristor Sensor. Springer Proceedings in Physics, 2019, , 523-535.	0.1	1
46	Development of laser radiation limiters based on stratified solutions. Optical Memory and Neural Networks (Information Optics), 2010, 19, 325-329.	0.4	0
47	Creation of advanced optical limiters based on J-type phthalocyanine dimers and their conjugates with single-walled carbon nanotubes. Proceedings of SPIE, 2016, , .	0.8	0
48	Laser structuring of carbon nanoframe in a protein matrix for the creation of 3D composite materials and coatings for applications in tissue engineering. , 2017, , .		0
49	Investigation of the interaction of the solder components for laser welding of biological tissues. Proceedings of SPIE, 2017, , .	0.8	0
50	Development of the device prototype based on the semiconductor carbon nanotubes structure for optical radiation detection and study of its parameters. Bulletin of the Lebedev Physics Institute, 2017, 44, 243-245.	0.1	0
51	Nonlinear optical characteristics of composite biosolders based on bovine serum albumin and single-walled carbon nanotubes. , 2017, , .		0
52	Structure and biological properties study of synthetic fibers nanocomposite coating for implantable materials. , 2017, , .		0
53	Vibrational spectroscopy of nanocomposite biostructures for restoration of bone-cartilage joints. , 2018, , .		0
54	The possibility of creation tissue-engineered structures with a structured internal nanocarbon scaffold in an organic matrix for repairing tissues of the cardiovascular system. , 2018, , .		0

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55	Transport gap engineering in zigzag graphene nanoribbons through topological design of deposited oxygen atoms: a new way to control the quantum transport in graphene-like materials. Materials Research Express, 2019, 6, 0950b6.	0.8	0
56	Modeling the Mechanical Characteristics of the Regenerated Tissues of Cardiovascular System With the Use of Patches Based on Tissue Engineering Constructions. , 2019, , .		0
57	Manufacturing Technology of Nanocomposite Material From Carbon Nanotubes in a Polymer Matrix for Biological Tissues Strain Gauges. , 2021, , .		0
58	Strain Sensor Based on Biological Nanomaterial. Engineering Proceedings, 2021, 6, 23.	0.4	0
59	Enhancement of the conductivity of nanomaterial layers by laser irradiation. Proceedings of SPIE, 2017, , .	0.8	0
60	Threshold effect in properties of limiters for high-intensity laser radiation. , 2018, , .		0
61	Stimulation of the specific conductivity of the biocompatible nanomaterial layers by laser irradiation. , 2018, , .		0
62	Vibrational spectroscopy of tissue-engineered structures based on proteins, chitosan, and carbon nanotube conjugates. , 2018, , .		0
63	Interaction of new hybrid patch with blood vessels and heart layers. , 2019, , .		0
64	Nonlinear optical properties of single-walled carbon nanotubes/water dispersed media exposed to laser radiation with nano- and femtosecond pulse durations. Kondensirovannye Sredy Mezhfaznye Granitsy, 2021, 23, 496-506.	0.1	0
65	Single wall carbon nanotubes and their conjugates with dimeric phthalocyanine complexes of Cu for optical limiters in the protection of photosensitive detectors and micro-optoelectromechanical systems. , 2021, , .		0