Alexander Gerasimenko

List of Publications by Year
in descending order

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	Flexible Strain-Sensitive Silicone-CNT Sensor for Human Motion Detection. Bioengineering, 2022, 9, 36.	1.6	18
2	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
3	Reconstruction of Soft Biological Tissues Using Laser Soldering Technology with Temperature Control and Biopolymer Nanocomposites. Bioengineering, 2022, 9, 238.	1.6	8
4	Electroactive Polymer-Based Composites for Artificial Muscle-like Actuators: A Review. Nanomaterials, 2022, 12, 2272.	1.9	30
5	Novel octabromo-substituted lanthanide(III) phthalocyanines â€“ Prospective compounds for nonlinear optics. Dyes and Pigments, 2021, 185, 108871.	2.0	18
6	Manufacturing Technology of Nanocomposite Material From Carbon Nanotubes in a Polymer Matrix for Biological Tissues Strain Gauges. , 2021, , .		0
7	Laser fabrication of composite layers from biopolymers with branched 3D networks of single-walled carbon nanotubes for cardiovascular implants. Composite Structures, 2021, 260, 113517.	3.1	23
8	Strain Sensor Based on Biological Nanomaterial. Engineering Proceedings, 2021, 6, 23.	0.4	0
9	Possibility Noninvasive Detection Magnetic Particles in Biological Objects. Engineering Proceedings, 2021, 6, 61.	0.4	1
10	Electrically Conductive Networks from Hybrids of Carbon Nanotubes and Graphene Created by Laser Radiation. Nanomaterials, 2021, 11, 1875.	1.9	16
11	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
12	Two-Photon Polymerization of Albumin Hydrogel Nanowires Strengthened with Graphene Oxide. Biomimetics, 2021, 6, 66.	1.5	4
13	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
14	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
15	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. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 227, 117682.	2.0	23
16	Fontan Hemodynamics Investigation via Modeling and Experimental Characterization of Idealized Pediatric Total Cavopulmonary Connection. Applied Sciences (Switzerland), 2020, 10, 6910.	1.3	5
17	Frame Coating of Single-Walled Carbon Nanotubes in Collagen on PET Fibers for Artificial Joint Ligaments. International Journal of Molecular Sciences, 2020, 21, 6163.	1.8	16
18	Biocompatible SWCNT Conductive Composites for Biomedical Applications. Nanomaterials, 2020, 10, 2492.	1.9	15

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19	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
20	Spectral analysis combined with nonlinear optical measurement of laser printed biopolymer composites comprising chitosan/SWCNT. Analytical Biochemistry, 2020, 598, 113710.	1.1	13
21	Effects of pulsed and continuous-wave laser radiation on the fabrication of tissue-engineered composite structures. Optical Engineering, 2020, 59, 1.	0.5	9
22	Influence of edge defects on Raman spectra of graphene. Letters on Materials, 2020, 10, 89-93.	0.2	7
23	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
24	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
25	Electrical stimulation of cell growth on layers of composite material based on carbon nanotubes and polymers. AIP Conference Proceedings, 2019, , .	0.3	2
26	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
27	Conjugates of thermally stable phthalocyanine J-type dimers with single-walled carbon nanotubes for enhanced optical limiting applications. Optics and Laser Technology, 2019, 117, 272-279.	2.2	39
28	Influence of laser structuring and barium nitrate treatment on morphology and electrophysical characteristics of vertically aligned carbon nanotube arrays. Diamond and Related Materials, 2019, 96, 104-111.	1.8	16
29	Investigation of the Electrical Stimulation Effect on Cell Growth on Bioengineering Nanocomposite Substrates. , 2019, , .		1
30	Modeling the Mechanical Characteristics of the Regenerated Tissues of Cardiovascular System With the Use of Patches Based on Tissue Engineering Constructions. , 2019, , .		0
31	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
32	Laser-induced modification of amorphousâ€‰GST225 phase change materials. Materiaux Et Techniques, 2019, 107, 307.	0.3	2
33	Layers of Composite Nanomaterials as Prototype of a Tensoresistor Sensor. Springer Proceedings in Physics, 2019, , 523-535.	0.1	1
34	Interaction of new hybrid patch with blood vessels and heart layers. , 2019, , .		0
35	Vibrational spectroscopy of nanocomposite biostructures for restoration of bone-cartilage joints. , 2018, , .		0
36	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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37	Research of nonlinear characteristics of albumin and collagen dispersions with single-walled carbon nanotubes. , 2018, , .		3
38	Chitosan-Based Material for Cellular Tissue Engineering. Bio-Medical Engineering, 2018, 52, 46-50.	0.3	4
39	Laser nanocomposites based on proteins and carbon nanotubes for restoration of biological tissues. , 2018, , .		1
40	Threshold effect in properties of limiters for high-intensity laser radiation. , 2018, , .		0
41	Stimulation of the specific conductivity of the biocompatible nanomaterial layers by laser irradiation. , 2018, , .		0
42	Vibrational spectroscopy of tissue-engineered structures based on proteins, chitosan, and carbon nanotube conjugates. , 2018, , .		0
43	Threshold effect in optical limiters based on conjugates J-type phthalocyanine dimers Zn and Mg with single-walled carbon nanotubes. , 2018, , .		1
44	Use of Indocyanine Green in Nanocomposite Solders to Increase Strength and Homogeneity in Laser Welding of Tendons. Bio-Medical Engineering, 2017, 50, 310-313.	0.3	15
45	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
46	Investigation of the interaction of the solder components for laser welding of biological tissues. Proceedings of SPIE, 2017, , .	0.8	0
47	Development of the device prototype based on the semiconductorâ€“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
48	Laser structuring of carbon nanotubes in the albumin matrix for the creation of composite biostructures. Journal of Biomedical Optics, 2017, 22, 065003.	1.4	31
49	Nonlinear optical characteristics of composite biosolders based on bovine serum albumin and single-walled carbon nanotubes. , 2017, , .		0
50	Structure and biological properties study of synthetic fibers nanocomposite coating for implantable materials. , 2017, , .		0
51	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
52	Enhancement of the conductivity of nanomaterial layers by laser irradiation. Proceedings of SPIE, 2017, , .	0.8	0
53	Thermally stable J-type phthalocyanine dimers as new non-linear absorbers for low-threshold optical limiters. Physical Chemistry Chemical Physics, 2016, 18, 15964-15971.	1.3	26
54	Laser System with Adaptive Thermal Stabilization for Welding of Biological Tissues. Bio-Medical Engineering, 2016, 49, 344-348.	0.3	17

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55	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
56	Knee Joint Ligament Implants with Composite Nanocoatings. Bio-Medical Engineering, 2016, 50, 206-209.	0.3	11
57	High-performance optical limiters based on stable phthalocyanine J-type dimers. Chemical Physics Letters, 2016, 661, 269-273.	1.2	19
58	Threshold effect under nonlinear limitation of the intensity of high-power light. Quantum Electronics, 2015, 45, 315-320.	0.3	13
59	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
60	A study of preparation techniques and properties of bulk nanocomposites based on aqueous albumin dispersion. Optics and Spectroscopy (English Translation of Optika I Spektroskopiya), 2013, 115, 283-289.	0.2	14
61	Limitation of laser intensity using binary stratifying solutions. Quantum Electronics, 2012, 42, 591-594.	0.3	5
62	Nanocomposite solder for laser welding of biological tissues. Semiconductors, 2011, 45, 1713-1718.	0.2	9
63	Development of laser radiation limiters based on stratified solutions. Optical Memory and Neural Networks (Information Optics), 2010, 19, 325-329.	0.4	0
64	Nonlinear absorption in pyran dyes. Optical Memory and Neural Networks (Information Optics), 2009, 18, 218-222.	0.4	10
65	Reverse saturation absorption in PK 792 and PK 7098 dyes. Bulletin of the Lebedev Physics Institute, 2009, 36, 287-292.	0.1	1