

Maxim A Abakumov

List of Publications by Year in descending order

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102
papers

1,768
citations

304602

22
h-index

330025

37
g-index

103
all docs

103
docs citations

103
times ranked

2747
citing authors

#	ARTICLE	IF	CITATIONS
1	Genetically encodable bioluminescent system from fungi. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12728-12732.	3.3	130
2	VEGF-targeted magnetic nanoparticles for MRI visualization of brain tumor. Nanomedicine: Nanotechnology, Biology, and Medicine, 2015, 11, 825-833.	1.7	101
3	Luciferase Expression Allows Bioluminescence Imaging But Imposes Limitations on the Orthotopic Mouse (4T1) Model of Breast Cancer. Scientific Reports, 2017, 7, 7715.	1.6	89
4	Toxicity of iron oxide nanoparticles: Size and coating effects. Journal of Biochemical and Molecular Toxicology, 2018, 32, e22225.	1.4	82
5	Magnetite-Gold nanohybrids as ideal all-in-one platforms for theranostics. Scientific Reports, 2018, 8, 11295.	1.6	77
6	Core-shell corona doxorubicin-loaded superparamagnetic Fe ₃ O ₄ nanoparticles for cancer theranostics. Colloids and Surfaces B: Biointerfaces, 2015, 136, 1073-1080.	2.5	59
7	In Vitro and In Vivo Electrochemical Measurement of Reactive Oxygen Species After Treatment with Anticancer Drugs. Analytical Chemistry, 2020, 92, 8010-8014.	3.2	58
8	Multimodal doxorubicin loaded magnetic nanoparticles for VEGF targeted theranostics of breast cancer. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 1733-1742.	1.7	56
9	Temperature-controlled magnetic nanoparticles hyperthermia inhibits primary tumor growth and metastases dissemination. Nanomedicine: Nanotechnology, Biology, and Medicine, 2020, 25, 102171.	1.7	53
10	Synthesis of iron oxide nanorods for enhanced magnetic hyperthermia. Journal of Magnetism and Magnetic Materials, 2019, 469, 443-449.	1.0	47
11	Multilayer polyion complex nanoformulations of superoxide dismutase 1 for acute spinal cord injury. Journal of Controlled Release, 2018, 270, 226-236.	4.8	45
12	Intravital microscopy reveals a novel mechanism of nanoparticles excretion in kidney. Journal of Controlled Release, 2019, 307, 368-378.	4.8	40
13	Extravasating Neutrophils Open Vascular Barrier and Improve Liposomes Delivery to Tumors. ACS Nano, 2019, 13, 12599-12612.	7.3	39
14	Synthesis, characterization and MRI application of magnetite water-soluble cubic nanoparticles. Journal of Magnetism and Magnetic Materials, 2017, 441, 6-13.	1.0	33
15	Size-selected Fe ₃ O ₄ @Au hybrid nanoparticles for improved magnetism-based theranostics. Beilstein Journal of Nanotechnology, 2018, 9, 2684-2699.	1.5	32
16	Neutrophil-mediated transport is crucial for delivery of short-circulating magnetic nanoparticles to tumors. Acta Biomaterialia, 2020, 104, 176-187.	4.1	32
17	Synthesis and characterization of bacteriochlorin loaded magnetic nanoparticles (MNP) for personalized MRI guided photosensitizers delivery to tumor. Journal of Colloid and Interface Science, 2019, 537, 132-141.	5.0	30
18	Synthesis of Iron Oxide Nanoclusters by Thermal Decomposition. Langmuir, 2018, 34, 4640-4650.	1.6	29

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19	Encapsulinsâ€”Bacterial Protein Nanocompartments: Structure, Properties, and Application. <i>Biomolecules</i> , 2020, 10, 966.	1.8	29
20	Multifunctional Fe ₃ O ₄ -Au Nanoparticles for the MRI Diagnosis and Potential Treatment of Liver Cancer. <i>Nanomaterials</i> , 2020, 10, 1646.	1.9	27
21	Biocompatible dextran-coated gadolinium-doped cerium oxide nanoparticles as MRI contrast agents with high <i>T</i> ₁ relaxivity and selective cytotoxicity to cancer cells. <i>Journal of Materials Chemistry B</i> , 2021, 9, 6586-6599.	2.9	24
22	Precise Delivery Into Chronic Spinal Cord Injury Syringomyelic Cysts with Magnetic Nanoparticles MRI Visualization. <i>Medical Science Monitor</i> , 2015, 21, 3179-3185.	0.5	23
23	Development of bacteriochlorophyll a-based near-infrared photosensitizers conjugated to gold nanoparticles for photodynamic therapy of cancer. <i>Biochemistry (Moscow)</i> , 2015, 80, 752-762.	0.7	22
24	Intra-Arterial Stem Cell Transplantation in Experimental Stroke in Rats: Real-Time MR Visualization of Transplanted Cells Starting With Their First Pass Through the Brain With Regard to the Therapeutic Action. <i>Frontiers in Neuroscience</i> , 2021, 15, 641970.	1.4	22
25	Pt(IV) Prodrugs with Non-Steroidal Anti-inflammatory Drugs in the Axial Position. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 8227-8244.	2.9	21
26	Codon optimization and improved delivery/immunization regimen enhance the immune response against wild-type and drug-resistant HIV-1 reverse transcriptase, preserving its Th2-polarity. <i>Scientific Reports</i> , 2018, 8, 8078.	1.6	20
27	Electrodeposition of cobalt-substituted calcium phosphate coatings on Ti ₂₂ Nb ₆ Zr alloy for bone implant applications. <i>Journal of Alloys and Compounds</i> , 2019, 793, 576-582.	2.8	20
28	Synthesis and Biological Evaluation of PSMA Ligands with Aromatic Residues and Fluorescent Conjugates Based on Them. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 4532-4552.	2.9	19
29	Progressive lysosomal membrane permeabilization induced by iron oxide nanoparticles drives hepatic cell autophagy and apoptosis. <i>Nano Convergence</i> , 2020, 7, 17.	6.3	19
30	Cobalt Ferrite Nanoparticles for Tumor Therapy: Effective Heating versus Possible Toxicity. <i>Nanomaterials</i> , 2022, 12, 38.	1.9	19
31	Methodological aspects of MRI of transplanted superparamagnetic iron oxide-labeled mesenchymal stem cells in live rat brain. <i>PLoS ONE</i> , 2017, 12, e0186717.	1.1	18
32	Visualization of Experimental Glioma C6 by MRI with Magnetic Nanoparticles Conjugated with Monoclonal Antibodies to Vascular Endothelial Growth Factor. <i>Bulletin of Experimental Biology and Medicine</i> , 2012, 154, 274-277.	0.3	16
33	Magnetic properties of biofunctionalized iron oxide nanoparticles as magnetic resonance imaging contrast agents. <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 1964-1972.	1.5	16
34	Variation in tumor pH affects pH-triggered delivery of peptide-modified magnetic nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2021, 32, 102317.	1.7	16
35	Non-magnetic shell coating of magnetic nanoparticles as key factor of toxicity for cancer cells in a low frequency alternating magnetic field. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 206, 111931.	2.5	16
36	Targeted Delivery of Cisplatin by ðionnexin 43 Vector Nanogels to the Focus of Experimental Glioma C6. <i>Bulletin of Experimental Biology and Medicine</i> , 2014, 157, 524-529.	0.3	15

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37	Site-Directed Delivery of VEGF-Targeted Liposomes into Intracranial C6 Glioma. <i>Bulletin of Experimental Biology and Medicine</i> , 2015, 158, 371-376.	0.3	15
38	HSA-Coated Magnetic Nanoparticles for MRI-Guided Photodynamic Cancer Therapy. <i>Pharmaceutics</i> , 2018, 10, 284.	2.0	15
39	Biodistribution and Tumors MRI Contrast Enhancement of Magnetic Nanocubes, Nanoclusters, and Nanorods in Multiple Mice Models. <i>Contrast Media and Molecular Imaging</i> , 2018, 2018, 1-12.	0.4	15
40	Impact of forsterite addition on mechanical and biological properties of composites. <i>Journal of Asian Ceramic Societies</i> , 2020, 8, 1051-1065.	1.0	15
41	Modeling and Integral X-Ray, Optical, and MRI Visualization of Multiorgan Metastases of Orthotopic 4T1 Breast Carcinoma in BALB/c Mice. <i>Bulletin of Experimental Biology and Medicine</i> , 2015, 158, 581-588.	0.3	14
42	Magnetic Nanoparticles as a Tool for Remote DNA Manipulations at a Single-Molecule Level. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 14458-14469.	4.0	14
43	Effect of Iron Oxide Nanoparticle Shape on Doxorubicin Drug Delivery Toward LNCaP and PC-3 Cell Lines. <i>BioNanoScience</i> , 2018, 8, 394-406.	1.5	13
44	Immobilization of a pH-low insertion peptide onto SiO ₂ /aminosilane-coated magnetite nanoparticles. <i>Mendeleev Communications</i> , 2019, 29, 631-634.	0.6	13
45	Synthesis and Investigation of Photophysical and Biological Properties of Novel S-Containing Bacteriopurpurinimides. <i>Journal of Medicinal Chemistry</i> , 2017, 60, 10220-10230.	2.9	12
46	Fluorescently Labeled PLGA Nanoparticles for Visualization In Vitro and In Vivo: The Importance of Dye Properties. <i>Pharmaceutics</i> , 2021, 13, 1145.	2.0	12
47	Magnetic Resonance Imaging of Tumors with the Use of Iron Oxide Magnetic Nanoparticles as a Contrast Agent. <i>Bulletin of Experimental Biology and Medicine</i> , 2017, 162, 808-811.	0.3	11
48	Intravital imaging of liposome behavior upon repeated administration: A step towards the development of liposomal companion diagnostic for cancer nanotherapy. <i>Journal of Controlled Release</i> , 2021, 330, 244-256.	4.8	11
49	Synthesis and intensive analysis of antibody labeled single core magnetic nanoparticles for targeted delivery to the cell membrane. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 521, 167487.	1.0	11
50	Connexin 43-targeted T ₁ contrast agent for MRI diagnosis of glioma. <i>Contrast Media and Molecular Imaging</i> , 2016, 11, 15-23.	0.4	10
51	Isolation of Rat Olfactory Ensheathing Cells and Their Use in the Therapy of Posttraumatic Cysts of the Spinal Cord. <i>Bulletin of Experimental Biology and Medicine</i> , 2018, 165, 132-135.	0.3	10
52	Effects of Macromolecular Crowding on Nanoparticle Diffusion: New Insights from Mössbauer Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 6804-6811.	2.1	10
53	Encapsulin Based Self-Assembling Iron-Containing Protein Nanoparticles for Stem Cells MRI Visualization. <i>International Journal of Molecular Sciences</i> , 2021, 22, 12275.	1.8	10
54	Design of Conductive Microwire Systems for Manipulation of Biological Cells. <i>IEEE Transactions on Magnetics</i> , 2018, 54, 1-5.	1.2	9

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55	Enzyme Release from Polyion Complex by Extremely Low Frequency Magnetic Field. <i>Scientific Reports</i> , 2020, 10, 4745.	1.6	9
56	Genetically Encoded Self-Assembling Iron Oxide Nanoparticles as a Possible Platform for Cancer-Cell Tracking. <i>Pharmaceutics</i> , 2021, 13, 397.	2.0	9
57	Advances and Challenges of Nanoparticle-Based Macrophage Reprogramming for Cancer Immunotherapy. <i>Biochemistry (Moscow)</i> , 2019, 84, 729-745.	0.7	8
58	Effect of Magnetite Nanoparticle Morphology on the Parameters of MRI Relaxivity. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2018, 82, 1214-1221.	0.1	7
59	The Stress and Vascular Catastrophes in Newborn Rats: Mechanisms Preceding and Accompanying the Brain Hemorrhages. <i>Frontiers in Physiology</i> , 2016, 7, 210.	1.3	6
60	Hyperthermal Effect of Cubic Magnetic Nanoparticles. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2019, 83, 1294-1299.	0.1	6
61	Preparation and Testing of Cells Expressing Fluorescent Proteins for Intravital Imaging of Tumor Microenvironment. <i>Bulletin of Experimental Biology and Medicine</i> , 2019, 167, 123-130.	0.3	6
62	Magnetic and Optical Properties of Gold-Coated Iron Oxide Nanoparticles. <i>Journal of Nanoscience and Nanotechnology</i> , 2019, 19, 4987-4993.	0.9	6
63	Human serum albumin as an effective coating for hydrophobic photosensitizes immobilization on magnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 475, 108-114.	1.0	6
64	Synthesis and characterization of PEG-silane functionalized iron oxide(II, III) nanoparticles for biomedical application. <i>Nanotechnologies in Russia</i> , 2015, 10, 896-903.	0.7	5
65	Relationship between the Size of Magnetic Nanoparticles and Efficiency of MRT Imaging of Cerebral Glioma in Rats. <i>Bulletin of Experimental Biology and Medicine</i> , 2016, 161, 292-295.	0.3	5
66	Diffusion Tensor Imaging in Diagnosis of Post-Traumatic Syringomyelia in Spinal Cord Injury in Rats. <i>Medical Science Monitor</i> , 2018, 24, 177-182.	0.5	5
67	Evaluation of cyclic luciferin as a substrate for luminescence measurements in <i>in vitro</i> and <i>in vivo</i> applications. <i>Biochemical and Biophysical Research Communications</i> , 2019, 513, 535-539.	1.0	5
68	Study of the Brownian Broadening in the Mössbauer Spectra of Magnetic Nanoparticles in Colloids with Different Viscosities. <i>Crystallography Reports</i> , 2020, 65, 398-403.	0.1	5
69	Unravelling the nucleation, growth, and faceting of magnetite-gold nanohybrids. <i>Journal of Materials Chemistry B</i> , 2020, 8, 3886-3895.	2.9	5
70	Versatile seed-mediated method of $\text{Co}_x\text{Fe}_{3-x}\text{O}_4$ nanoparticles synthesis in glycol media via thermal decomposition. <i>Materials Letters</i> , 2020, 276, 128210.	1.3	5
71	Photochemical synthesis, intercalation with DNA and antitumor evaluation <i>in vitro</i> of benzo[d]thiazolo[3,2-a]quinolin-10-ium derivatives. <i>Bioorganic Chemistry</i> , 2021, 115, 105267.	2.0	5
72	Renal Artery Catheterization for Microcapsules Targeted Delivery to the Mouse Kidney. <i>Pharmaceutics</i> , 2022, 14, 1056.	2.0	5

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73	Survival and Migration of Rat Olfactory Ensheathing Cells after Transplantation into Posttraumatic Cysts in the Spinal Cord. <i>Bulletin of Experimental Biology and Medicine</i> , 2018, 166, 118-123.	0.3	4
74	Assessment of the Parameters of Adaptive Cell-Mediated Immunity in Na ⁺ -ve Common Marmosets (<i>Callithrix jacchus</i>). <i>Acta Naturae</i> , 2018, 10, 63-69.	1.7	4
75	The Impact of Cerebral Perfusion on Mesenchymal Stem Cells Distribution after Intra-Arterial Transplantation: A Quantitative MR Study. <i>Biomedicines</i> , 2022, 10, 353.	1.4	4
76	New Approach to Non-Invasive Tumor Model Monitoring via Self-Assemble Iron Containing Protein Nanocompartments. <i>Nanomaterials</i> , 2022, 12, 1657.	1.9	4
77	Tumor-Specific Contrast Agent Based on Ferric Oxide Superparamagnetic Nanoparticles for Visualization of Gliomas by Magnetic Resonance Tomography. <i>Bulletin of Experimental Biology and Medicine</i> , 2012, 153, 89-93.	0.3	3
78	Studying the Effect of Brownian Motion on the Mössbauer Spectra of Nanoparticles in a Medium Simulating Cell Cytoplasm. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , 2020, 84, 1399-1402.	0.1	3
79	In Vivo Tracking for Oncolytic Adenovirus Interactions with Liver Cells. <i>Biomedicines</i> , 2022, 10, 1697.	1.4	3
80	Study of iodine, gadolinium and bismuth quantification possibility with micro-CT IVIS spectrumct in vivo imaging system. <i>Journal of Physics: Conference Series</i> , 2017, 784, 012043.	0.3	2
81	Anisotropic Iron-Oxide Nanoparticles for Diagnostic MRI: Synthesis and Contrast Properties. <i>Pharmaceutical Chemistry Journal</i> , 2018, 52, 231-235.	0.3	2
82	Contrast Agents Based on Iron Oxide Nanoparticles for Clinical Magnetic Resonance Imaging. <i>Bulletin of Experimental Biology and Medicine</i> , 2019, 167, 272-274.	0.3	2
83	Comparison of the Efficiency of Transplantation of Rat and Human Olfactory Ensheathing Cells in Posttraumatic Cysts of the Spinal Cord. <i>Bulletin of Experimental Biology and Medicine</i> , 2019, 167, 536-540.	0.3	2
84	Relaxation Properties of Contrast Media for MRI Based on Iron Oxide Nanoparticles in Different Magnetic Fields. <i>Bulletin of Experimental Biology and Medicine</i> , 2019, 167, 97-99.	0.3	2
85	Expression of the Reverse Transcriptase Domain of Telomerase Reverse Transcriptase Induces Lytic Cellular Response in DNA-Immunized Mice and Limits Tumorigenic and Metastatic Potential of Murine Adenocarcinoma 4T1 Cells. <i>Vaccines</i> , 2020, 8, 318.	2.1	2
86	Urokinase-Type Plasminogen Activator Enhances the Neuroprotective Activity of Brain-Derived Neurotrophic Factor in a Model of Intracerebral Hemorrhage. <i>Biomedicines</i> , 2022, 10, 1346.	1.4	2
87	Magnetic Resonance Imaging of Endothelial Cells with Vectorized Iron Oxide Nanoparticles. <i>Bulletin of Experimental Biology and Medicine</i> , 2011, 151, 726-730.	0.3	1
88	Pulsed Dendritic Cells for the Therapy of Experimental Glioma. <i>Bulletin of Experimental Biology and Medicine</i> , 2016, 161, 792-796.	0.3	1
89	Stress plays provoking role in hypertension-related stroke: injuries of blood-brain barrier function. <i>Proceedings of SPIE</i> , 2017, , .	0.8	1
90	Nanocarbon colloid produced by electro-spark discharge in ethanol for seeding the substrates in MPACVD synthesis of polycrystalline diamond films. <i>Journal of Physics: Conference Series</i> , 2018, 1094, 012030.	0.3	1

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91	Synthesis and Mössbauer study of anomalous magnetic behavior of Fe ₂ O ₃ nanoparticle-montmorillonite nanocomposites. <i>Hyperfine Interactions</i> , 2020, 241, 1.	0.2	1
92	Synthesis and In Vitro Study of the Biodegradation Resistance of Magnetic Nanoparticles Designed for Studying the Viscoelasticity of Cytoplasm. <i>Crystallography Reports</i> , 2020, 65, 381-386.	0.1	1
93	Contrast enhanced MRI of tumors using gadopentetic acid linked to cyclodextrin by an ester bond. <i>Bulletin of Russian State Medical University</i> , 2016, , 34-39.	0.3	1
94	Stress Plays Provoking Role in Hypertension-Related Stroke: Injuries of Blood-Brain Barrier Function. , 2016, , .		0
95	Critical changes in the brain leads to the intracranial hemorrhages in newborn rats. , 2016, , .		0
96	FEASIBILITY STUDY OF MAGNETIC RESONANCE IMAGING APPLICATION IN EXPERIMENTAL RADIOLOGY FOR INTRAVITAL VERIFICATION OF LUNGS METASTASES IN MICE. , 2021, 20, 69-75.	0.3	0
97	Study of the contrasting effectiveness of various tumors types using cubic magnetite nanoparticles. <i>Bulletin of Siberian Medicine</i> , 2018, 17, 139-148.	0.1	0
98	Evaluation of absorbed dose distribution in melanoma B16F10 during contrast enhanced radiotherapy with intratumoral administration of dose-enhancing agent. <i>Bulletin of Russian State Medical University</i> , 2018, , 60-64.	0.3	0
99	Magnetic resonance imaging for predicting personalized antitumor nanomedicine efficacy. <i>Bulletin of Russian State Medical University</i> , 2019, , 21-24.	0.3	0
100	Lipidoid iron oxide nanoparticles are a platform for nucleic acid delivery to the liver. <i>Bulletin of Russian State Medical University</i> , 2019, , 40-48.	0.3	0
101	Assessment of the Parameters of Adaptive Cell-Mediated Immunity in Na ⁺ -ve Common Marmosets (<i>Callithrix jacchus</i>). <i>Acta Naturae</i> , 2018, 10, 63-69.	1.7	0
102	Liposomal Form of 2,4-Dinitrophenol Lipophilic Derivatives as a Promising Therapeutic Agent for ATP Synthesis Inhibition. <i>Nanomaterials</i> , 2022, 12, 2162.	1.9	0