

Maxim Nikitin

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5115994/publications.pdf>

Version: 2024-02-01

90
papers

2,465
citations

147566

31
h-index

214527

47
g-index

90
all docs

90
docs citations

90
times ranked

2088
citing authors

#	ARTICLE	IF	CITATIONS
1	Advanced Smart Nanomaterials with Integrated Logic-Gating and Biocomputing: Dawn of Theranostic Nanorobots. <i>Chemical Reviews</i> , 2018, 118, 10294-10348.	23.0	136
2	Biocomputing based on particle disassembly. <i>Nature Nanotechnology</i> , 2014, 9, 716-722.	15.6	132
3	Nanoparticle-based drug delivery via RBC-hitchhiking for the inhibition of lung metastases growth. <i>Nanoscale</i> , 2019, 11, 1636-1646.	2.8	126
4	Enhancement of the blood-circulation time and performance of nanomedicines via the forced clearance of erythrocytes. <i>Nature Biomedical Engineering</i> , 2020, 4, 717-731.	11.6	103
5	Protein-assisted self-assembly of multifunctional nanoparticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 5827-5832.	3.3	96
6	Magnetic Immunoassay for Detection of Staphylococcal Toxins in Complex Media. <i>Analytical Chemistry</i> , 2013, 85, 1154-1163.	3.2	77
7	Multiplex Biosensing Based on Highly Sensitive Magnetic Nanolabel Quantification: Rapid Detection of Botulinum Neurotoxins A, B, and E in Liquids. <i>Analytical Chemistry</i> , 2016, 88, 10419-10426.	3.2	76
8	Antibody-directed metal-organic framework nanoparticles for targeted drug delivery. <i>Acta Biomaterialia</i> , 2020, 103, 223-236.	4.1	74
9	Rapid dry-reagent immunomagnetic biosensing platform based on volumetric detection of nanoparticles on 3D structures. <i>Biosensors and Bioelectronics</i> , 2016, 79, 423-429.	5.3	70
10	Rapid lateral flow assays based on the quantification of magnetic nanoparticle labels for multiplexed immunodetection of small molecules: application to the determination of drugs of abuse. <i>Mikrochimica Acta</i> , 2019, 186, 621.	2.5	67
11	Smart materials on the way to theranostic nanorobots: Molecular machines and nanomotors, advanced biosensors, and intelligent vehicles for drug delivery. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2017, 1861, 1530-1544.	1.1	61
12	Nanoparticle Beacons: Supersensitive Smart Materials with On/Off-Switchable Affinity to Biomedical Targets. <i>ACS Nano</i> , 2020, 14, 1792-1803.	7.3	53
13	Long-Term Fate of Magnetic Particles in Mice: A Comprehensive Study. <i>ACS Nano</i> , 2021, 15, 11341-11357.	7.3	50
14	MPQ-cytometry: a magnetism-based method for quantification of nanoparticle-cell interactions. <i>Nanoscale</i> , 2016, 8, 12764-12772.	2.8	48
15	Ultrasensitive quantitative detection of small molecules with rapid lateral-flow assay based on high-affinity bifunctional ligand and magnetic nanolabels. <i>Analytica Chimica Acta</i> , 2018, 1034, 161-167.	2.6	48
16	Ultrasensitive detection enabled by nonlinear magnetization of nanomagnetic labels. <i>Nanoscale</i> , 2018, 10, 11642-11650.	2.8	48
17	Fast processes of nanoparticle blood clearance: Comprehensive study. <i>Journal of Controlled Release</i> , 2020, 326, 181-191.	4.8	46
18	Analytical Platform with Selectable Assay Parameters Based on Three Functions of Magnetic Nanoparticles: Demonstration of Highly Sensitive Rapid Quantitation of Staphylococcal Enterotoxin B in Food. <i>Analytical Chemistry</i> , 2019, 91, 9852-9857.	3.2	45

#	ARTICLE	IF	CITATIONS
19	In vivo blockade of mononuclear phagocyte system with solid nanoparticles: Efficiency and affecting factors. <i>Journal of Controlled Release</i> , 2021, 330, 111-118.	4.8	44
20	Quantitative real-time in vivo detection of magnetic nanoparticles by their nonlinear magnetization. <i>Journal of Applied Physics</i> , 2008, 103, 07A304.	1.1	43
21	Highly sensitive room-temperature method of non-invasive in vivo detection of magnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2009, 321, 1658-1661.	1.0	42
22	Highly reproducible and sensitive detection of mycotoxins by label-free biosensors. <i>Sensors and Actuators B: Chemical</i> , 2017, 246, 1080-1084.	4.0	42
23	Metal-organic frameworks for simultaneous gene and small molecule delivery in vitro and in vivo. <i>Chemical Engineering Journal</i> , 2021, 418, 129386.	6.6	42
24	Surface plasmon resonance as a tool for investigation of non-covalent nanoparticle interactions in heterogeneous self-assembly & disassembly systems. <i>Biosensors and Bioelectronics</i> , 2017, 88, 3-8.	5.3	41
25	Denaturation-Resistant Bifunctional Colloidal Superstructures Assembled via the Proteinaceous Barnase-Barstar Interface. <i>ACS Nano</i> , 2013, 7, 950-961.	7.3	40
26	Versatile Platform for Nanoparticle Surface Bioengineering Based on SiO ₂ -Binding Peptide and Proteinaceous Barnase-Barstar Interface. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 17437-17447.	4.0	40
27	A new real-time method for investigation of affinity properties and binding kinetics of magnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 380, 231-235.	1.0	39
28	Magnetic hybrid magnetite/metal organic framework nanoparticles: facile preparation, post-synthetic biofunctionalization and tracking in vivo with magnetic methods. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 449, 590-596.	1.0	36
29	Nanomagnetic lateral flow assay for high-precision quantification of diagnostically relevant concentrations of serum TSH. <i>Talanta</i> , 2020, 216, 120961.	2.9	36
30	Generation and delivery of nanoaerosols from biological and biologically active substances. <i>Journal of Aerosol Science</i> , 2014, 69, 48-61.	1.8	33
31	Reversible Conformational Transitions of a Polymer Brush Containing Boronic Acid and its Interaction with Mucin Glycoprotein. <i>Macromolecular Bioscience</i> , 2011, 11, 275-284.	2.1	31
32	Direct immunosensing by spectral correlation interferometry: assay characteristics versus antibody immobilization chemistry. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 3955-3964.	1.9	31
33	Applications of Pristine and Functionalized Carbon Nanotubes, Graphene, and Graphene Nanoribbons in Biomedicine. <i>Nanomaterials</i> , 2021, 11, 3020.	1.9	30
34	Photothermal Therapy with HER2-Targeted Silver Nanoparticles Leading to Cancer Remission. <i>Pharmaceutics</i> , 2022, 14, 1013.	2.0	27
35	Biodegradation of Magnetic Nanoparticles in Mouse Liver From Combined Analysis of Mössbauer and Magnetization Data. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 394-397.	1.2	26
36	Development and label-free investigation of logic-gating biolayers for smart biosensing. <i>Sensors and Actuators B: Chemical</i> , 2018, 257, 971-979.	4.0	25

#	ARTICLE	IF	CITATIONS
37	Self-assembling nanoparticles biofunctionalized with magnetite-binding protein for the targeted delivery to HER2/neu overexpressing cancer cells. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 469, 450-455.	1.0	25
38	Detection of pyrethroids by spectral correlation interferometry. <i>Applied Biochemistry and Microbiology</i> , 2013, 49, 306-311.	0.3	23
39	Dynamic light scattering biosensing based on analyte-induced inhibition of nanoparticle aggregation. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 3423-3431.	1.9	23
40	Comparative Evaluation of Engineered Polypeptide Scaffolds in HER2-Targeting Magnetic Nanocarrier Delivery. <i>ACS Omega</i> , 2021, 6, 16000-16008.	1.6	23
41	Interferometric detection of chloramphenicol via its immunochemical recognition at polymer-coated nano-corrugated surfaces. <i>Sensors and Actuators B: Chemical</i> , 2019, 282, 984-991.	4.0	21
42	Synthesis of highly-specific stable nanocrystalline goethite-like hydrous ferric oxide nanoparticles for biomedical applications by simple precipitation method. <i>Journal of Colloid and Interface Science</i> , 2019, 541, 143-149.	5.0	21
43	Nanobiosensing based on optically selected antibodies and superparamagnetic labels for rapid and highly sensitive quantification of polyvalent hepatitis B surface antigen. <i>Analytical Methods</i> , 2021, 13, 2424-2433.	1.3	19
44	Interpretation of the Mössbauer Spectra of the Magnetic Nanoparticles in Mouse Spleen. , 2010, , .		18
45	Magnetic Nanoparticle Degradation in vivo Studied by Mössbauer Spectroscopy. , 2010, , .		18
46	Targeting Cancer Cell Tight Junctions Enhances PLGA-Based Photothermal Sensitizers' Performance In Vitro and In Vivo. <i>Pharmaceutics</i> , 2022, 14, 43.	2.0	18
47	Synthesis of Magnetic Nanoparticles Stabilized by Magnetite-Binding Protein for Targeted Delivery to Cancer Cells. <i>Doklady Biochemistry and Biophysics</i> , 2018, 481, 198-200.	0.3	17
48	Precise Quantitative Analysis of Cell Targeting by Particle-Based Agents Using Imaging Flow Cytometry and Convolutional Neural Network. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2020, 97, 279-287.	1.1	16
49	Hematite Nanoparticles from Unexpected Reaction of Ferrihydrite with Concentrated Acids for Biomedical Applications. <i>Molecules</i> , 2020, 25, 1984.	1.7	15
50	Binding of mucin to water-soluble and surface-grafted boronate-containing polymers. <i>Polymer Science - Series A</i> , 2012, 54, 1-10.	0.4	14
51	A comprehensive study of interactions between lectins and glycoproteins for the development of effective theranostic nanoagents. <i>Doklady Biochemistry and Biophysics</i> , 2015, 464, 315-318.	0.3	14
52	Magnetometry based method for investigation of nanoparticle clearance from circulation in a liver perfusion model. <i>Nanotechnology</i> , 2019, 30, 105101.	1.3	14
53	Spindle-like MRI-active europium-doped iron oxide nanoparticles with shape-induced cytotoxicity from simple and facile ferrihydrite crystallization procedure. <i>RSC Advances</i> , 2020, 10, 7301-7312.	1.7	14
54	Nonviral Locally Injected Magnetic Vectors for In Vivo Gene Delivery: A Review of Studies on Magnetofection. <i>Nanomaterials</i> , 2021, 11, 1078.	1.9	13

#	ARTICLE	IF	CITATIONS
55	Smart multifunctional nanoagents for in situ monitoring of small molecules with a switchable affinity towards biomedical targets. <i>Applied Nanoscience (Switzerland)</i> , 2018, 8, 195-203.	1.6	11
56	Magnetofection In Vivo by Nanomagnetic Carriers Systemically Administered into the Bloodstream. <i>Pharmaceutics</i> , 2021, 13, 1927.	2.0	11
57	Antitumor effects of the combination of magnetohydrodynamic thermochemotherapy and magnetic resonance tomography. <i>Pharmaceutical Chemistry Journal</i> , 2010, 44, 291-295.	0.3	9
58	Biodegradation of Magnetic Nanoparticles in Rat Brain Studied by Mössbauer Spectroscopy. <i>IEEE Transactions on Magnetics</i> , 2013, 49, 436-439.	1.2	9
59	Mössbauer study of exogenous iron redistribution between the brain and the liver after administration of $^{57}\text{Fe}_3\text{O}_4$ ferrofluid in the ventricle of the rat brain. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 380, 78-84.	1.0	9
60	Exogenous iron redistribution between brain and spleen after the administration of the $^{57}\text{Fe}_3\text{O}_4$ ferrofluid into the ventricle of the brain. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 427, 41-47.	1.0	9
61	Green Synthesis of Size-Controlled <i>in Vivo</i> Biocompatible Immunoglobulin-Based Nanoparticles by a Swift Thermal Formation. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 13128-13134.	3.2	9
62	Imaging flow cytometry data analysis using convolutional neural network for quantitative investigation of phagocytosis. <i>Biotechnology and Bioengineering</i> , 2022, 119, 626-635.	1.7	9
63	Synthesis and Characterization of Hybrid Core-Shell $\text{Fe}_3\text{O}_4/\text{SiO}_2$ Nanoparticles for Biomedical Applications. <i>Acta Naturae</i> , 2017, 9, 58-65.	1.7	8
64	Label-free methods of multiparametric surface plasmon resonance and MPQ-cytometry for quantitative real-time measurements of targeted magnetic nanoparticles complexation with living cancer cells. <i>Materials Today Communications</i> , 2021, 29, 102978.	0.9	7
65	Non-Invasive in vivo Mapping and Long-Term Monitoring of Magnetic Nanoparticles in Different Organs of Animals. , 2010, , .		6
66	Data on characterization and validation of assays for ultrasensitive quantitative detection of small molecules: Determination of free thyroxine with magnetic and interferometric methods. <i>Data in Brief</i> , 2018, 21, 1603-1611.	0.5	5
67	Biodegradation of Nanoparticles in a Body from Mössbauer and Magnetization Measurements. <i>Solid State Phenomena</i> , 2012, 190, 725-728.	0.3	4
68	Volumetric registration of magnetic nanoparticles for optimization of quantitative immunochromatographic assays for detection of small molecules. <i>EPJ Web of Conferences</i> , 2018, 185, 10006.	0.1	4
69	Macrophage blockade using nature-inspired ferrihydrite for enhanced nanoparticle delivery to tumor. <i>International Journal of Pharmaceutics</i> , 2022, 621, 121795.	2.6	4
70	Complexes of magnetic nanoparticles and scFv antibodies for targeting and visualizing cancer cells. , 2015, , .		3
71	Synthesis and Characterization of Hybrid Core-Shell $\text{Fe}_3\text{O}_4/\text{SiO}_2$ Nanoparticles for Biomedical Applications. <i>Acta Naturae</i> , 2017, 9, 58-65.	1.7	3
72	Optical picoscopes: new opportunities for biosensing and for molecular technologies. <i>Proceedings of SPIE</i> , 2007, , .	0.8	2

#	ARTICLE	IF	CITATIONS
73	Study of Nature of Paramagnetic Doublet in Mössbauer Spectra of Mice Liver Using External Magnetic Field. Solid State Phenomena, 2012, 190, 729-732.	0.3	2
74	Polyethyleneimine-coated magnetic nanoparticles for cell labeling and modification. Doklady Biochemistry and Biophysics, 2013, 452, 245-247.	0.3	2
75	Data on characterization of magnetic nanoparticles stabilized with fusion protein of Barstar and C-term part of Mms6. Data in Brief, 2018, 21, 1659-1663.	0.5	2
76	Synthesis and Characterization of Hybrid Core-Shell Fe ₃ O ₄ /SiO ₂ Nanoparticles for Biomedical Applications. Acta Naturae, 2017, 9, 58-65.	1.7	2
77	MRI-Adaptive Magneto-Thermo-Chemotherapy for Improved Cancer Treatment. , 2010, , .		1
78	Self-assembly of magnetic and fluorescent colloidal constructs based on protein-protein interactions. Doklady Biochemistry and Biophysics, 2012, 445, 210-212.	0.3	1
79	Nanorobots for biomedical applications. , 2016, , .		1
80	Mössbauer and X-ray study of biodegradation of ⁵⁷ Fe ₃ O ₄ magnetic nanoparticles in rat brain. Hyperfine Interactions, 2016, 237, 1.	0.2	1
81	Exogenous iron redistribution between brain and liver after administering ⁵⁷ Fe ₃ O ₄ ferrofluid to a rat brain ventricle. Bulletin of the Russian Academy of Sciences: Physics, 2017, 81, 788-792.	0.1	1
82	Combined Photodynamic Thermochemotherapy of Glial Tumors Controlled by MRI and Electronic Sensor. Solid State Phenomena, 0, 233-234, 757-760.	0.3	0
83	Lectin-based nanoagents for specific cell labelling and optical visualization. , 2016, , .		0
84	Near infrared luminescent-magnetic nanoparticles for bimodal imaging in vivo. , 2016, , .		0
85	Synthesis of magnetic silica nanomarkers with controlled physicochemical properties. Doklady Biochemistry and Biophysics, 2016, 470, 335-337.	0.3	0
86	Stimuli-responsive nano- and microstructures based on gold nanoparticles. , 2016, , .		0
87	Non-Covalent Conjugation of Antibodies and Lentiviruses to Nanoparticles as a Potential Tool for Gene Therapy. Clinical Lymphoma, Myeloma and Leukemia, 2017, 17, S394-S395.	0.2	0
88	Plasmon resonance enhanced nontoxic nanoagents for in vivo detection of antibiotic resistant bacteria. , 2020, , .		0
89	Synthesis of Fluorescent and Magnetic Liposomes and Their Application for Optical Detection of Migrating Cancer Cells. , 2020, , .		0
90	Multifunctional magnetic particle-based nanocarriers with easily modifiable surface for in vivo transfection. , 2020, , .		0