

# Maxim Nikitin

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

81  
papers

1,596  
citations

24  
h-index

37  
g-index

90  
ext. papers

2,161  
ext. citations

6.4  
avg, IF

5.26  
L-index

#	Paper	IF	Citations
81	Biocomputing based on particle disassembly. <i>Nature Nanotechnology</i> , <b>2014</b> , 9, 716-22	28.7	97
80	Advanced Smart Nanomaterials with Integrated Logic-Gating and Biocomputing: Dawn of Theranostic Nanorobots. <i>Chemical Reviews</i> , <b>2018</b> , 118, 10294-10348	68.1	90
79	Protein-assisted self-assembly of multifunctional nanoparticles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 5827-32	11.5	86
78	Nanoparticle-based drug delivery via RBC-hitchhiking for the inhibition of lung metastases growth. <i>Nanoscale</i> , <b>2019</b> , 11, 1636-1646	7.7	81
77	Magnetic immunoassay for detection of staphylococcal toxins in complex media. <i>Analytical Chemistry</i> , <b>2013</b> , 85, 1154-63	7.8	67
76	Multiplex Biosensing Based on Highly Sensitive Magnetic Nanolabel Quantification: Rapid Detection of Botulinum Neurotoxins A, B, and E in Liquids. <i>Analytical Chemistry</i> , <b>2016</b> , 88, 10419-10426	7.8	62
75	Rapid dry-reagent immunomagnetic biosensing platform based on volumetric detection of nanoparticles on 3D structures. <i>Biosensors and Bioelectronics</i> , <b>2016</b> , 79, 423-9	11.8	57
74	Enhancement of the blood-circulation time and performance of nanomedicines via the forced clearance of erythrocytes. <i>Nature Biomedical Engineering</i> , <b>2020</b> , 4, 717-731	19	54
73	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> , <b>2017</b> , 1861, 1530-1544	4	45
72	Ultrasensitive detection enabled by nonlinear magnetization of nanomagnetic labels. <i>Nanoscale</i> , <b>2018</b> , 10, 11642-11650	7.7	40
71	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> , <b>2019</b> , 186, 621	5.8	40
70	MPQ-cytometry: a magnetism-based method for quantification of nanoparticle-cell interactions. <i>Nanoscale</i> , <b>2016</b> , 8, 12764-72	7.7	39
69	Antibody-directed metal-organic framework nanoparticles for targeted drug delivery. <i>Acta Biomaterialia</i> , <b>2020</b> , 103, 223-236	10.8	38
68	Quantitative real-time in vivo detection of magnetic nanoparticles by their nonlinear magnetization. <i>Journal of Applied Physics</i> , <b>2008</b> , 103, 07A304	2.5	36
67	Highly reproducible and sensitive detection of mycotoxins by label-free biosensors. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 246, 1080-1084	8.5	35
66	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> , <b>2018</b> , 1034, 161-167	6.6	35
65	Versatile Platform for Nanoparticle Surface Bioengineering Based on SiO <sub>2</sub> -Binding Peptide and Proteinaceous Barnase*Barstar Interface. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 17437-17447	7.5	31

64	Surface plasmon resonance as a tool for investigation of non-covalent nanoparticle interactions in heterogeneous self-assembly & disassembly systems. <i>Biosensors and Bioelectronics</i> , <b>2017</b> , 88, 3-8	11.8	31
63	Highly sensitive room-temperature method of non-invasive in vivo detection of magnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2009</b> , 321, 1658-1661	2.8	31
62	Denaturation-resistant bifunctional colloidal superstructures assembled via the proteinaceous barnase-barstar interface. <i>ACS Nano</i> , <b>2013</b> , 7, 950-61	16.7	28
61	A new real-time method for investigation of affinity properties and binding kinetics of magnetic nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , <b>2015</b> , 380, 231-235	2.8	26
60	Nanoparticle Beacons: Supersensitive Smart Materials with On/Off-Switchable Affinity to Biomedical Targets. <i>ACS Nano</i> , <b>2020</b> , 14, 1792-1803	16.7	26
59	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> , <b>2019</b> , 91, 9852-9857	7.8	24
58	Fast processes of nanoparticle blood clearance: Comprehensive study. <i>Journal of Controlled Release</i> , <b>2020</b> , 326, 181-191	11.7	24
57	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> , <b>2018</b> , 449, 590-596	2.8	23
56	Generation and delivery of nanoaerosols from biological and biologically active substances. <i>Journal of Aerosol Science</i> , <b>2014</b> , 69, 48-61	4.3	23
55	Biodegradation of Magnetic Nanoparticles in Mouse Liver From Combined Analysis of Mössbauer and Magnetization Data. <i>IEEE Transactions on Magnetics</i> , <b>2013</b> , 49, 394-397	2	23
54	Reversible conformational transitions of a polymer brush containing boronic acid and its interaction with mucin glycoprotein. <i>Macromolecular Bioscience</i> , <b>2011</b> , 11, 275-84	5.5	22
53	In vivo blockade of mononuclear phagocyte system with solid nanoparticles: Efficiency and affecting factors. <i>Journal of Controlled Release</i> , <b>2021</b> , 330, 111-118	11.7	22
52	Direct immunosensing by spectral correlation interferometry: assay characteristics versus antibody immobilization chemistry. <i>Analytical and Bioanalytical Chemistry</i> , <b>2015</b> , 407, 3955-64	4.4	20
51	Nanomagnetic lateral flow assay for high-precision quantification of diagnostically relevant concentrations of serum TSH. <i>Talanta</i> , <b>2020</b> , 216, 120961	6.2	18
50	Development and label-free investigation of logic-gating biolayers for smart biosensing. <i>Sensors and Actuators B: Chemical</i> , <b>2018</b> , 257, 971-979	8.5	18
49	Metal-organic frameworks for simultaneous gene and small molecule delivery in vitro and in vivo. <i>Chemical Engineering Journal</i> , <b>2021</b> , 418, 129386	14.7	18
48	Magnetic Nanoparticle Degradation in vivo Studied by Mössbauer Spectroscopy <b>2010</b> ,		17
47	Long-Term Fate of Magnetic Particles in Mice: A Comprehensive Study. <i>ACS Nano</i> , <b>2021</b> ,	16.7	17

46	Interpretation of the Mössbauer Spectra of the Magnetic Nanoparticles in Mouse Spleen <b>2010</b> ,		16
45	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> , <b>2019</b> , 469, 450-455	2.8	16
44	Dynamic light scattering biosensing based on analyte-induced inhibition of nanoparticle aggregation. <i>Analytical and Bioanalytical Chemistry</i> , <b>2020</b> , 412, 3423-3431	4.4	14
43	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> , <b>2019</b> , 541, 143-149	9.3	14
42	Interferometric detection of chloramphenicol via its immunochemical recognition at polymer-coated nano-corrugated surfaces. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 282, 984-991	8.5	13
41	Binding of mucin to water-soluble and surface-grafted boronate-containing polymers. <i>Polymer Science - Series A</i> , <b>2012</b> , 54, 1-10	1.2	12
40	Synthesis of Magnetic Nanoparticles Stabilized by Magnetite-Binding Protein for Targeted Delivery to Cancer Cells. <i>Doklady Biochemistry and Biophysics</i> , <b>2018</b> , 481, 198-200	0.8	11
39	A comprehensive study of interactions between lectins and glycoproteins for the development of effective theranostic nanoagents. <i>Doklady Biochemistry and Biophysics</i> , <b>2015</b> , 464, 315-8	0.8	10
38	Detection of pyrethroids by spectral correlation interferometry. <i>Applied Biochemistry and Microbiology</i> , <b>2013</b> , 49, 306-311	1.1	10
37	Applications of Pristine and Functionalized Carbon Nanotubes, Graphene, and Graphene Nanoribbons in Biomedicine. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	10
36	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> , <b>2017</b> , 427, 41-47	2.8	9
35	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> , <b>2015</b> , 380, 78-84	2.8	9
34	Antitumor effects of the combination of magnetohydrodynamic thermochemotherapy and magnetic resonance tomography. <i>Pharmaceutical Chemistry Journal</i> , <b>2010</b> , 44, 291-295	0.9	9
33	Biodegradation of Magnetic Nanoparticles in Rat Brain Studied by Mössbauer Spectroscopy. <i>IEEE Transactions on Magnetics</i> , <b>2013</b> , 49, 436-439	2	8
32	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> , <b>2021</b> , 13, 2424-2433	3.2	8
31	Smart multifunctional nanoagents for in situ monitoring of small molecules with a switchable affinity towards biomedical targets. <i>Applied Nanoscience (Switzerland)</i> , <b>2018</b> , 8, 195-203	3.3	7
30	Synthesis and Characterization of Hybrid Core-Shell $\text{Fe}_3\text{O}_4/\text{SiO}_2$ Nanoparticles for Biomedical Applications. <i>Acta Naturae</i> , <b>2017</b> , 9, 58-65	2.1	7
29	Comparative Evaluation of Engineered Polypeptide Scaffolds in HER2-Targeting Magnetic Nanocarrier Delivery. <i>ACS Omega</i> , <b>2021</b> , 6, 16000-16008	3.9	7

28	Non-Invasive in vivo Mapping and Long-Term Monitoring of Magnetic Nanoparticles in Different Organs of Animals <b>2010</b> ,		6
27	Magnetometry based method for investigation of nanoparticle clearance from circulation in a liver perfusion model. <i>Nanotechnology</i> , <b>2019</b> , 30, 105101	3.4	6
26	Spindle-like MRI-active europium-doped iron oxide nanoparticles with shape-induced cytotoxicity from simple and facile ferrihydrite crystallization procedure.. <i>RSC Advances</i> , <b>2020</b> , 10, 7301-7312	3.7	5
25	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> , <b>2020</b> , 97, 279-287	4.6	5
24	Hematite Nanoparticles from Unexpected Reaction of Ferrihydrite with Concentrated Acids for Biomedical Applications. <i>Molecules</i> , <b>2020</b> , 25,	4.8	4
23	Nonviral Locally Injected Magnetic Vectors for In Vivo Gene Delivery: A Review of Studies on Magnetofection. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	4
22	Biodegradation of Nanoparticles in a Body from Mössbauer and Magnetization Measurements. <i>Solid State Phenomena</i> , <b>2012</b> , 190, 725-728	0.4	3
21	Synthesis and Characterization of Hybrid Core-Shell Fe <sub>3</sub> O <sub>4</sub> /SiO <sub>2</sub> Nanoparticles for Biomedical Applications. <i>Acta Naturae</i> , <b>2017</b> , 9, 58-65	2.1	3
20	Targeting Cancer Cell Tight Junctions Enhances PLGA-Based Photothermal SensitizersU Performance In Vitro and In Vivo.. <i>Pharmaceutics</i> , <b>2021</b> , 14,	6.4	3
19	Photothermal Therapy with HER2-Targeted Silver Nanoparticles Leading to Cancer Remission. <i>Pharmaceutics</i> , <b>2022</b> , 14, 1013	6.4	3
18	Complexes of magnetic nanoparticles and scFv antibodies for targeting and visualizing cancer cells <b>2015</b> ,		2
17	Study of Nature of Paramagnetic Doublet in Mössbauer Spectra of Mice Liver Using External Magnetic Field. <i>Solid State Phenomena</i> , <b>2012</b> , 190, 729-732	0.4	2
16	Optical picoscopes: new opportunities for biosensing and for molecular technologies <b>2007</b> ,		2
15	Magnetofection In Vivo by Nanomagnetic Carriers Systemically Administered into the Bloodstream. <i>Pharmaceutics</i> , <b>2021</b> , 13,	6.4	2
14	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> , <b>2021</b> , 29, 102978	2.5	2
13	Synthesis and Characterization of Hybrid Core-Shell Fe <sub>3</sub> O <sub>4</sub> /SiO <sub>2</sub> Nanoparticles for Biomedical Applications. <i>Acta Naturae</i> , <b>2017</b> , 9, 58-65	2.1	2
12	Green Synthesis of Size-Controlled in Vivo Biocompatible Immunoglobulin-Based Nanoparticles by a Swift Thermal Formation. <i>ACS Sustainable Chemistry and Engineering</i> ,	8.3	2
11	Nanorobots for biomedical applications <b>2016</b> ,		1

10	Mössbauer and X-ray study of biodegradation of $^{57}\text{Fe}_3\text{O}_4$ magnetic nanoparticles in rat brain. <i>Hyperfine Interactions</i> , <b>2016</b> , 237, 1	0.8	1
9	Exogenous iron redistribution between brain and liver after administering $^{57}\text{Fe}_3\text{O}_4$ ferrofluid to a rat brain ventricle. <i>Bulletin of the Russian Academy of Sciences: Physics</i> , <b>2017</b> , 81, 788-792	0.4	1
8	Self-assembly of magnetic and fluorescent colloidal constructs based on protein-protein interactions. <i>Doklady Biochemistry and Biophysics</i> , <b>2012</b> , 445, 210-2	0.8	1
7	Volumetric registration of magnetic nanoparticles for optimization of quantitative immunochromatographic assays for detection of small molecules. <i>EPJ Web of Conferences</i> , <b>2018</b> , 185, 10006	0.3	1
6	Polyethyleneimine-coated magnetic nanoparticles for cell labeling and modification. <i>Doklady Biochemistry and Biophysics</i> , <b>2013</b> , 452, 245-7	0.8	0
5	Data on characterization of magnetic nanoparticles stabilized with fusion protein of Barstar and C-term part of Mms6. <i>Data in Brief</i> , <b>2018</b> , 21, 1659-1663	1.2	0
4	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> , <b>2018</b> , 21, 1603-1611	1.2	0
3	Macrophage blockade using nature-inspired ferrihydrite for enhanced nanoparticle delivery to tumor.. <i>International Journal of Pharmaceutics</i> , <b>2022</b> , 621, 121795	6.5	0
2	Combined Photodynamic Thermochemotherapy of Glial Tumors Controlled by MRI and Electronic Sensor. <i>Solid State Phenomena</i> , <b>2015</b> , 233-234, 757-760	0.4	
1	Synthesis of magnetic silica nanomarkers with controlled physicochemical properties. <i>Doklady Biochemistry and Biophysics</i> , <b>2016</b> , 470, 335-337	0.8	