

# Alexander A Lomzov

## List of Publications by Year in descending order

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66  
papers

926  
citations

516561

16  
h-index

526166

27  
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76  
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76  
docs citations

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times ranked

847  
citing authors

#	ARTICLE	IF	CITATIONS
1	Physiological-Temperature Distance Measurement in Nucleic Acid using Triarylmethyl-Based Spin Labels and Pulsed Dipolar EPR Spectroscopy. <i>Journal of the American Chemical Society</i> , 2014, 136, 9874-9877.	6.6	151
2	Triarylmethyl Labels: Toward Improving the Accuracy of EPR Nanoscale Distance Measurements in DNAs. <i>Journal of Physical Chemistry B</i> , 2015, 119, 13641-13648.	1.2	63
3	Nucleotide Modifications Decrease Innate Immune Response Induced by Synthetic Analogs of snRNAs and snoRNAs. <i>Genes</i> , 2018, 9, 531.	1.0	45
4	Complementary-addressed site-directed spin labeling of long natural RNAs. <i>Nucleic Acids Research</i> , 2016, 44, 7935-7943.	6.5	38
5	Apoptosis-mediated endothelial toxicity but not direct calcification or functional changes in anti-calcification proteins defines pathogenic effects of calcium phosphate bions. <i>Scientific Reports</i> , 2016, 6, 27255.	1.6	37
6	Molecular Dynamics Simulation of Polarizable Gold Nanoparticles Interacting with Sodium Citrate. <i>Journal of Chemical Theory and Computation</i> , 2019, 15, 1278-1292.	2.3	33
7	A Versatile Approach to Attachment of Triarylmethyl Labels to DNA for Nanoscale Structural EPR Studies at Physiological Temperatures. <i>Journal of Physical Chemistry B</i> , 2018, 122, 137-143.	1.2	32
8	Evaluation of the Gibbs Free Energy Changes and Melting Temperatures of DNA/DNA Duplexes Using Hybridization Enthalpy Calculated by Molecular Dynamics Simulation. <i>Journal of Physical Chemistry B</i> , 2015, 119, 15221-15234.	1.2	30
9	Hybridization of the Bridged Oligonucleotides with DNA: Thermodynamic and Kinetic Studies. <i>Journal of Biomolecular Structure and Dynamics</i> , 2006, 23, 567-579.	2.0	29
10	Efficiency of exonucleolytic action of apurinic/apyrimidinic endonuclease 1 towards matched and mismatched dNMP at the 3' terminus of different oligomeric DNA structures correlates with thermal stability of DNA duplexes. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2006, 1764, 699-706.	1.1	26
11	Diastereomers of a mono-substituted phosphoryl guanidine trideoxyribonucleotide: Isolation and properties. <i>Biochemical and Biophysical Research Communications</i> , 2019, 513, 807-811.	1.0	25
12	Oxidative damage to epigenetically methylated sites affects DNA stability, dynamics and enzymatic demethylation. <i>Nucleic Acids Research</i> , 2018, 46, 10827-10839.	6.5	22
13	DNA complexes with human apurinic/apyrimidinic endonuclease 1: structural insights revealed by pulsed dipolar EPR with orthogonal spin labeling. <i>Nucleic Acids Research</i> , 2019, 47, 7767-7780.	6.5	20
14	Allele-Specific PCR for KRAS Mutation Detection Using Phosphoryl Guanidine Modified Primers. <i>Diagnostics</i> , 2020, 10, 872.	1.3	19
15	Thermodynamic parameters for calculating the stability of complexes of bridged oligonucleotides. <i>Doklady Biochemistry and Biophysics</i> , 2006, 409, 211-215.	0.3	17
16	2,2'-Bispyrene Modified 2'-O-Methyl RNA Probes as Useful Tools for the Detection of RNA: Synthesis, Fluorescent Properties, and Duplex Stability. <i>ChemBioChem</i> , 2014, 15, 1939-1946.	1.3	16
17	The Influence of the Non-Nucleotide Insert on the Hybridization Properties of Oligonucleotides. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2004, 23, 1065-1071.	0.4	15
18	Physicochemical Properties of the Phosphoryl Guanidine Oligodeoxyribonucleotide Analogs. <i>Russian Journal of Bioorganic Chemistry</i> , 2019, 45, 709-718.	0.3	15

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19	The role of Asn-212 in the catalytic mechanism of human endonuclease APE1: Stopped-flow kinetic study of incision activity on a natural AP site and a tetrahydrofuran analogue. <i>DNA Repair</i> , 2014, 21, 43-54.	1.3	14
20	QCM-Based Measurement of Bond Rupture Forces in DNA Double Helices for Complementarity Sensing. <i>Langmuir</i> , 2014, 30, 3795-3801.	1.6	14
21	New oligonucleotide analogues based on morpholine subunits joined by oxalyl diamide tether. <i>Bioorganic Chemistry</i> , 2007, 35, 258-275.	2.0	12
22	Global DNA dynamics of 8-oxoguanine repair by human OGG1 revealed by stopped-flow kinetics and molecular dynamics simulation. <i>Molecular BioSystems</i> , 2017, 13, 1954-1966.	2.9	12
23	Application of W-band <sup>19</sup> F electron nuclear double resonance (ENDOR) spectroscopy to distance measurement using a trityl spin probe and a fluorine label. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 5982-6001.	1.3	11
24	Considering the oligonucleotide secondary structures in thermodynamic and kinetic analysis of DNA duplex formation. <i>Biophysics (Russian Federation)</i> , 2012, 57, 19-34.	0.2	10
25	Study of a DNA Duplex by Nuclear Magnetic Resonance and Molecular Dynamics Simulations. Validation of Pulsed Dipolar Electron Paramagnetic Resonance Distance Measurements Using Triarylmethyl-Based Spin Labels. <i>Journal of Physical Chemistry B</i> , 2016, 120, 5125-5133.	1.2	10
26	Rational design and studies of excimer forming novel dual probes to target RNA. <i>Bioorganic and Medicinal Chemistry</i> , 2017, 25, 2244-2250.	1.4	10
27	Thermodynamic description of oligonucleotide self-association in DNA concatamer structures. <i>Biophysics (Russian Federation)</i> , 2009, 54, 280-290.	0.2	9
28	A new approach to precise thermodynamic characterization of hybridization properties of modified oligonucleotides: Comparative studies of deoxyribo- and glycine morpholine pentaadenines. <i>Biophysical Chemistry</i> , 2018, 234, 24-33.	1.5	9
29	Effects of Phosphoryl Guanidine Modification of Phosphate Residues on the Structure and Hybridization of Oligodeoxyribonucleotides. <i>Journal of Physical Chemistry B</i> , 2021, 125, 2841-2855.	1.2	9
30	Calculation of Energy for RNA/RNA and DNA/RNA Duplex Formation by Molecular Dynamics Simulation. <i>Molecular Biology</i> , 2021, 55, 927-940.	0.4	9
31	Artificial Anti-HIV-1 Immunogen Comprising Epitopes of Broadly Neutralizing Antibodies 2F5, 10E8, and a Peptide Mimic of VRC01 Discontinuous Epitope. <i>Vaccines</i> , 2019, 7, 83.	2.1	8
32	3'-MODIFIED OLIGO(2'-O-METHYL-RIBONUCLEOTIDES) AS IMPROVED PROBES FOR HYBRIDIZATION WITH RNA. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2005, 24, 527-531.	0.4	7
33	Structural basis for the recognition and processing of DNA containing bulky lesions by the mammalian nucleotide excision repair system. <i>DNA Repair</i> , 2018, 61, 86-98.	1.3	7
34	Apurinic/apyrimidinic endonuclease Apn1 from <i>Saccharomyces cerevisiae</i> is recruited to the nucleotide incision repair pathway: Kinetic and structural features. <i>Biochimie</i> , 2018, 152, 53-62.	1.3	7
35	DNA Binding to Gold Nanoparticles through the Prism of Molecular Selection: Sequence-Affinity Relation. <i>Langmuir</i> , 2019, 35, 7916-7928.	1.6	7
36	Strict conformational demands of RNA cleavage in bulge-loops created by peptidyl-oligonucleotide conjugates. <i>Nucleic Acids Research</i> , 2020, 48, 10662-10679.	6.5	7

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37	Terminal Mono- and Bis-Conjugates of Oligonucleotides with Closo-Dodecaborate: Synthesis and Physico-Chemical Properties. <i>International Journal of Molecular Sciences</i> , 2021, 22, 182.	1.8	7
38	Towards an understanding of crystallization from solution. DFT studies of multi-component serotonin crystals. <i>Computational and Theoretical Chemistry</i> , 2016, 1088, 52-61.	1.1	6
39	Search for oligonucleotides selectively binding oncogenic miR-21. <i>Russian Journal of Bioorganic Chemistry</i> , 2017, 43, 29-37.	0.3	6
40	QCM-based rupture force measurement as a tool to study DNA dehybridization and duplex stability. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 891-901.	1.9	6
41	Modified Oligonucleotides for Guiding RNA Cleavage Using Bacterial RNase P. <i>Molecular Biology</i> , 2018, 52, 905-912.	0.4	6
42	Structure and Hybridization Properties of Glycine Morpholine Oligomers in Complexes with DNA and RNA: Experimental and Molecular Dynamics Studies. <i>Journal of Physical Chemistry B</i> , 2019, 123, 10571-10581.	1.2	6
43	Multipyrene tandem probes for detection of C677T polymorphism in MTHFR gene. <i>Nucleic Acids Symposium Series</i> , 2009, 53, 143-144.	0.3	5
44	QCM-based rapid analysis of DNA. <i>Sensing and Bio-Sensing Research</i> , 2015, 4, 11-15.	2.2	5
45	Processing of the abasic sites clustered with the benzo[a]pyrene adducts by the base excision repair enzymes. <i>DNA Repair</i> , 2017, 50, 43-53.	1.3	5
46	Effect of laser UV radiation on the eye scleral tissue in patients with open-angle glaucoma. <i>Quantum Electronics</i> , 2018, 48, 481-486.	0.3	4
47	A Comparative Study of the Hybridization of Phosphoryl Guanidine Oligonucleotides with DNA and RNA. <i>Russian Journal of Bioorganic Chemistry</i> , 2021, 47, 461-468.	0.3	4
48	Triazinylamidophosphate Oligonucleotides: Synthesis and Study of Their Interaction with Cells and DNA-Binding Proteins. <i>Russian Journal of Bioorganic Chemistry</i> , 2021, 47, 719-733.	0.3	4
49	The role of His-83 of yeast apurinic/apyrimidinic endonuclease Apn1 in catalytic incision of abasic sites in DNA. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2015, 1850, 1297-1309.	1.1	3
50	Data for isolation and properties analysis of diastereomers of a mono-substituted phosphoryl guanidine trideoxyribonucleotide. <i>Data in Brief</i> , 2019, 25, 104148.	0.5	3
51	Postsynthetic On-Column $\epsilon^2$ Functionalization of RNA by Convenient Versatile Method. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5127.	1.8	3
52	15,16-Epoxy-3,13(16),14-Neoclerodatrien-17,12:18,19-diolide, a new compound from <i>Galatella punctata</i> . <i>Chemistry of Natural Compounds</i> , 2013, 48, 946-949.	0.2	2
53	Effect of the relief on the measurement of bond rupture force with the help of AFM: the dynamics of interaction and optimization of the procedure. <i>Analytical Methods</i> , 2018, 10, 3498-3505.	1.3	2
54	Residue coevolution reveals functionally important intramolecular interactions in formamidopyrimidine-DNA glycosylase. <i>DNA Repair</i> , 2018, 69, 24-33.	1.3	2

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55	Novel Bisimidazole-Containing Peptidomimetic Molecules for Døetal-Independent RNA Cleavage: Synthesis and Solid-Phase Screening Method. <i>Russian Journal of Bioorganic Chemistry</i> , 2019, 45, 813-824.	0.3	2
56	G-quadruplex 2â€²-F-modified RNA aptamers targeting hemoglobin: Structure studies and colorimetric assays. <i>Analytical Biochemistry</i> , 2020, 611, 113886.	1.1	2
57	Recognition and removal of clustered DNA lesions via nucleotide excision repair. <i>DNA Repair</i> , 2021, 108, 103225.	1.3	2
58	Nanorings from Concatemeric DNA: Chemical Modification Drives Nanostructure Formation. <i>Journal of Nanoscience and Nanotechnology</i> , 2015, 15, 4170-4177.	0.9	1
59	Features of Determining Thermodynamic Parameters of Formation of Nucleic Acid Complexes Using Thermal Denaturation with Fluorimetric Signal Detection. <i>Russian Journal of Bioorganic Chemistry</i> , 2019, 45, 684-698.	0.3	1
60	Bridged Oligonucleotides with Smoothed Hybridization Properties as a Tool for Analysis of Nucleotide Sequences. <i>Russian Journal of Bioorganic Chemistry</i> , 2019, 45, 677-683.	0.3	1
61	A QCM-based rupture event scanning technique as a simple and reliable approach to study the kinetics of DNA duplex dissociation. <i>Analytical Methods</i> , 2020, 12, 3771-3777.	1.3	1
62	Structure and hybridization properties of phosphoryl guanidine oligonucleotides under crowding conditions. <i>Biochemical and Biophysical Research Communications</i> , 2021, 577, 110-115.	1.0	1
63	The Structural and Immunological Properties of Chimeric Proteins Containing HIV-1 MPER Sites. <i>Acta Naturae</i> , 2019, 11, 56-65.	1.7	1
64	Pairing nanoarchitectonics of oligodeoxyribonucleotides with complex diversity: concatemers and self-limited complexes. <i>RSC Advances</i> , 2022, 12, 6416-6431.	1.7	1
65	Silicon Microchannel Array as a Basis of Biosensor Device. <i>Materials Research Society Symposia Proceedings</i> , 2006, 915, 1.	0.1	0
66	Data on PAGE analysis and MD simulation for the interaction of endonuclease Apn1 from <i>Saccharomyces cerevisiae</i> with DNA substrates containing 5,6-dihydrouracyl and 2-aminopurine. <i>Data in Brief</i> , 2018, 20, 1515-1524.	0.5	0