

Nikolay E Polyakov

List of Publications by Year in descending order

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96
papers

2,172
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186265

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docs citations

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1589
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanistic Insights of Chelator Complexes with Essential Transition Metals: Antioxidant/Pro-Oxidant Activity and Applications in Medicine. <i>International Journal of Molecular Sciences</i> , 2022, 23, 1247.	4.1	23
2	Ascorbate-and iron-driven redox activity of Dp44mT and Emodin facilitates peroxidation of micelles and bicelles. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2022, 1866, 130078.	2.4	7
3	The Interplay of Ascorbic Acid with Quinones-Chelatorsâ€™ Influence on Lipid Peroxidation: Insight into Anticancer Activity. <i>Antioxidants</i> , 2022, 11, 376.	5.1	9
4	Photoinduced Oxidation of Lipid Membranes in the Presence of the Nonsteroidal Anti-Inflammatory Drug Ketoprofen. <i>Membranes</i> , 2022, 12, 251.	3.0	7
5	Chiral Linked Systems as a Model for Understanding D-Amino Acids Influence on the Structure and Properties of Amyloid Peptides. <i>International Journal of Molecular Sciences</i> , 2022, 23, 3060.	4.1	4
6	Optical Configuration Effect on the Structure and Reactivity of Diastereomers Revealed by Spin Effects and Molecular Dynamics Calculations. <i>International Journal of Molecular Sciences</i> , 2022, 23, 38.	4.1	3
7	Stereoselectivity of Interaction of Nonsteroidal Anti-Inflammatory Drug S-Ketoprofen with L/D-Tryptophan in Phospholipid Membranes. <i>Membranes</i> , 2022, 12, 460.	3.0	6
8	Preparation of DNC Solid Dispersion by a Mechanochemical Method with Glycyrrhizic Acid and Polyvinylpyrrolidone to Enhance Bioavailability and Activity. <i>Polymers</i> , 2022, 14, 2037.	4.5	2
9	Mechanically induced solvent-free esterification method at room temperature. <i>RSC Advances</i> , 2021, 11, 5080-5085.	3.6	4
10	pH-Sensitive Glycyrrhizin Based Vesicles for Nifedipine Delivery. <i>Molecules</i> , 2021, 26, 1270.	3.8	11
11	Study of supramolecular complex of nifedipine with arabinogalactan on Wistar and ISIAH rats. <i>Therapeutic Delivery</i> , 2021, 12, 119-131.	2.2	4
12	Solubility, Permeability, Anti-Inflammatory Action and In Vivo Pharmacokinetic Properties of Several Mechanochemically Obtained Pharmaceutical Solid Dispersions of Nimesulide. <i>Molecules</i> , 2021, 26, 1513.	3.8	12
13	Research on Preparation of 5-ASA Colon-Specific Hydrogel Delivery System without Crosslinking Agent by Mechanochemical Method. <i>Pharmaceutical Research</i> , 2021, 38, 693-706.	3.5	11
14	Carotenoids: Importance in Daily Lifeâ€™ Insight Gained from EPR and ENDOR. <i>Applied Magnetic Resonance</i> , 2021, 52, 1093-1112.	1.2	9
15	Role of Chiral Configuration in the Photoinduced Interaction of D- and L-Tryptophan with Optical Isomers of Ketoprofen in Linked Systems. <i>International Journal of Molecular Sciences</i> , 2021, 22, 6198.	4.1	5
16	Preparation of astaxanthin micelles self-assembled by a mechanochemical method from hydroxypropyl β -cyclodextrin and glyceryl monostearate with enhanced antioxidant activity. <i>International Journal of Pharmaceutics</i> , 2021, 605, 120799.	5.2	18
17	Antioxidant Activity of Deferasirox and Its Metal Complexes in Model Systems of Oxidative Damage: Comparison with Deferiprone. <i>Molecules</i> , 2021, 26, 5064.	3.8	10
18	Self-assembled nanocapsules of celery (<i>Apium graveolens</i> Linn) seed oil: Mechanochemical preparation, characterization and urate-lowering activity. <i>Journal of Drug Delivery Science and Technology</i> , 2021, 66, 102810.	3.0	1

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19	Mechanism of the enhancing effect of glycyrrhizin on nifedipine penetration through a lipid membrane. <i>Journal of Molecular Liquids</i> , 2021, 344, 117759.	4.9	12
20	Arabinogalactan and glycyrrhizin based nanopesticides as novel delivery systems for plant protection. <i>Environmental Science and Pollution Research</i> , 2020, 27, 5864-5872.	5.3	17
21	Effect of Glycyrrhizic Acid and Arabinogalactan on the Membrane Potential of Rat Thymocytes Studied by Potential-Sensitive Fluorescent Probe. <i>Journal of Membrane Biology</i> , 2020, 253, 343-356.	2.1	10
22	Trying to Solve the Puzzle of the Interaction of Ascorbic Acid and Iron: Redox, Chelation and Therapeutic Implications. <i>Medicines (Basel, Switzerland)</i> , 2020, 7, 45.	1.4	43
23	Experimental and Theoretical Study of Emodin Interaction with Phospholipid Bilayer and Linoleic Acid. <i>Applied Magnetic Resonance</i> , 2020, 51, 951-960.	1.2	6
24	Stereoselectivity of Electron and Energy Transfer in the Quenching of (S/R)-Ketoprofen-(S)-Tryptophan Dyad Excited State. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5370.	4.1	9
25	Redox Interactions of Vitamin C and Iron: Inhibition of the Pro-Oxidant Activity by Deferiprone. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3967.	4.1	88
26	New insights into the nature of short-lived paramagnetic intermediates of ketoprofen. Photo-CIDNP study. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2020, 392, 112383.	3.9	8
27	Glycyrrhizin-induced changes in phospholipid dynamics studied by ¹ H NMR and MD simulation. <i>Archives of Biochemistry and Biophysics</i> , 2020, 686, 108368.	3.0	21
28	Supramolecular Carotenoid Complexes of Enhanced Solubility and Stability—The Way of Bioavailability Improvement. <i>Molecules</i> , 2019, 24, 3947.	3.8	51
29	Preparation, physicochemical and pharmacological study of curcumin solid dispersion with an arabinogalactan complexation agent. <i>International Journal of Biological Macromolecules</i> , 2019, 128, 158-166.	7.5	30
30	NMR investigation of photoinduced chiral inversion in (R)/(S)-naproxen—(S)-tryptophan linked system. <i>Mendeleev Communications</i> , 2019, 29, 260-262.	1.6	5
31	Glycyrrhizic acid as a multifunctional drug carrier — From physicochemical properties to biomedical applications: A modern insight on the ancient drug. <i>International Journal of Pharmaceutics</i> , 2019, 559, 271-279.	5.2	122
32	Glycyrrhizin-Assisted Transport of Praziquantel Anthelmintic Drug through the Lipid Membrane: An Experiment and MD Simulation. <i>Molecular Pharmaceutics</i> , 2019, 16, 3188-3198.	4.6	34
33	Effective inhibition of copper-catalyzed production of hydroxyl radicals by deferiprone. <i>Journal of Biological Inorganic Chemistry</i> , 2019, 24, 331-341.	2.6	27
34	Spin effects as a tool to study photoinduced processes in (S/R)-ketoprofen-(S)-N-methylpyrrolidine dyads. <i>Journal of Chemical Physics</i> , 2019, 151, 245101.	3.0	8
35	Disodium salt of glycyrrhizic acid — A novel supramolecular delivery system for anthelmintic drug praziquantel. <i>Journal of Drug Delivery Science and Technology</i> , 2019, 50, 66-77.	3.0	36
36	Redox-Active Quinone Chelators: Properties, Mechanisms of Action, Cell Delivery, and Cell Toxicity. <i>Antioxidants and Redox Signaling</i> , 2018, 28, 1394-1403.	5.4	31

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37	Preparation of curcumin self-micelle solid dispersion with enhanced bioavailability and cytotoxic activity by mechanochemistry. <i>Drug Delivery</i> , 2018, 25, 198-209.	5.7	102
38	Mechanochemical preparation of kaempferol intermolecular complexes for enhancing the solubility and bioavailability. <i>Drug Development and Industrial Pharmacy</i> , 2018, 44, 1924-1932.	2.0	15
39	Atorvastatin calcium inclusion complexation with polysaccharide arabinogalactan and saponin disodium glycyrrhizate for increasing of solubility and bioavailability. <i>Drug Delivery and Translational Research</i> , 2018, 8, 1200-1213.	5.8	18
40	Physicochemical and Toxic Properties of Novel Genipin Drug Delivery Systems Prepared by Mechanochemistry. <i>Current Drug Delivery</i> , 2018, 15, 727-736.	1.6	4
41	Supramolecular Complex of Ibuprofen with Larch Polysaccharide Arabinogalactan: Studies on Bioavailability and Pharmacokinetics. <i>European Journal of Drug Metabolism and Pharmacokinetics</i> , 2017, 42, 431-440.	1.6	24
42	Retinal accumulation of zeaxanthin, lutein, and β -carotene in mice deficient in carotenoid cleavage enzymes. <i>Experimental Eye Research</i> , 2017, 159, 123-131.	2.6	46
43	Mechanism of $\text{D}_j\text{-D}$ -cyclization of alkynylantraquinones into thienoanthraquinones with the participation of sodium sulfide. <i>Tetrahedron</i> , 2017, 73, 6334-6340.	1.9	2
44	Enhanced solubility and bioavailability of simvastatin by mechanochemically obtained complexes. <i>International Journal of Pharmaceutics</i> , 2017, 534, 108-118.	5.2	64
45	Natural Poly- and Oligosaccharides as Novel Delivery Systems for Plant Protection Compounds. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 6582-6587.	5.2	13
46	Effect of natural polysaccharides and oligosaccharides on the permeability of cell membranes. <i>Russian Chemical Bulletin</i> , 2017, 66, 129-135.	1.5	29
47	Light-Stimulated Generation of Free Radicals by Quinones-Chelators. <i>Zeitschrift Fur Physikalische Chemie</i> , 2017, 231, 369-389.	2.8	8
48	Photo Protection of <i>Haematococcus pluvialis</i> Algae by Astaxanthin: Unique Properties of Astaxanthin Deduced by EPR, Optical and Electrochemical Studies. <i>Antioxidants</i> , 2017, 6, 80.	5.1	28
49	Investigation the inclusion complexes of valsartan with polysaccharide arabinogalactan from larch <i>Larix sibirica</i> and (2-hydroxypropyl)- β -cyclodextrin: preparation, characterization and physicochemical properties. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2016, 85, 93-104.	1.6	10
50	Spectroscopic and molecular dynamics characterization of glycyrrhizin membrane-modifying activity. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 147, 459-466.	5.0	66
51	Improving the Efficiency and Safety of Aspirin by Complexation with the Natural Polysaccharide Arabinogalactan. <i>Current Drug Delivery</i> , 2016, 13, 582-589.	1.6	7
52	Membrane-modifying activity of glycyrrhizic acid. <i>Russian Chemical Bulletin</i> , 2015, 64, 1555-1559.	1.5	23
53	Water soluble biocompatible vesicles based on polysaccharides and oligosaccharides inclusion complexes for carotenoid delivery. <i>Carbohydrate Polymers</i> , 2015, 128, 207-219.	10.2	56
54	Structure of dimers of glycyrrhizic acid in water and their complexes with cholesterol: Molecular dynamics simulation. <i>Journal of Structural Chemistry</i> , 2015, 56, 67-76.	1.0	21

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55	Solubilization and stabilization of macular carotenoids by water soluble oligosaccharides and polysaccharides. Archives of Biochemistry and Biophysics, 2015, 572, 58-65.	3.0	59
56	Inhibition of Fe ²⁺ - and Fe ³⁺ - induced hydroxyl radical production by the iron-chelating drug deferiprone. Free Radical Biology and Medicine, 2015, 78, 118-122.	2.9	48
57	Polysaccharide arabinogalactan from larch <i>Larix sibirica</i> as carrier for molecules of salicylic and acetylsalicylic acid: preparation, physicochemical and pharmacological study. Drug Delivery, 2015, 22, 400-407.	5.7	35
58	A Physicochemical and Pharmacological Study of the Newly Synthesized Complex of Albendazole and the Polysaccharide Arabinogalactan from Larch Wood. Current Drug Delivery, 2015, 12, 477-490.	1.6	29
59	Effect of glycyrrhizic acid on hemolysis of red blood cells and properties of cell membranes. Russian Chemical Bulletin, 2014, 63, 1201-1204.	1.5	13
60	Photoinduced transformation of iron chelator deferiprone: Possible implications in drug metabolism and toxicity. Journal of Photochemistry and Photobiology A: Chemistry, 2014, 289, 14-21.	3.9	8
61	Photochemical and Optical Properties of Water-Soluble Xanthophyll Antioxidants: Aggregation vs Complexation. Journal of Physical Chemistry B, 2013, 117, 10173-10182.	2.6	58
62	Time-Resolved Fluorescence Study of Exciplex Formation in Diastereomeric Naproxen-Pyrrolidine Dyads. Journal of Physical Chemistry B, 2013, 117, 16206-16211.	2.6	7
63	EPR Study of the Astaxanthin-Octanoic Acid Monoester and Diester Radicals on Silica-Alumina. Journal of Physical Chemistry B, 2012, 116, 13200-13210.	2.6	15
64	Spin effects in intramolecular electron transfer in naproxen-N-methylpyrrolidine dyad. Chemical Physics Letters, 2011, 516, 51-55.	2.6	9
65	NMR Relaxation Study of Cholesterol Binding with Plant Metabolites. Applied Magnetic Resonance, 2011, 41, 283-294.	1.2	19
66	Glycyrrhizic Acid as a Novel Drug Delivery Vector: Synergy of Drug Transport and Efficacy. The Open Conference Proceedings Journal, 2011, 2, 64-72.	0.6	49
67	Carotenoid Radicals: Cryptochemistry of Natural Colorants. Chemistry Letters, 2010, 39, 148-155.	1.3	23
68	CIDNP and EPR Study of Phototransformation of Lappaconitine Derivatives in Solution. Journal of Physical Chemistry B, 2010, 114, 4646-4651.	2.6	8
69	Free Radical Formation in Novel Carotenoid Metal Ion Complexes of Astaxanthin. Journal of Physical Chemistry B, 2010, 114, 16968-16977.	2.6	59
70	Enhancement of the Photocatalytic Activity of TiO ₂ Nanoparticles by Water-Soluble Complexes of Carotenoids. Journal of Physical Chemistry B, 2010, 114, 14200-14204.	2.6	30
71	Measuring Ti(III)-Carotenoid Radical Interspin Distances in TiMCM-41 by Pulsed EPR Relaxation Enhancement Method. Journal of Physical Chemistry B, 2009, 113, 8704-8716.	2.6	5
72	Water Soluble Complexes of Carotenoids with Arabinogalactan. Journal of Physical Chemistry B, 2009, 113, 275-282.	2.6	51

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73	Phototransformation products of the alkaloid lappaconitine: Multinuclear NMR study. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2008, 197, 290-294.	3.9	5
74	Complex of Calcium Receptor Blocker Nifedipine with Glycyrrhizic Acid. <i>Journal of Physical Chemistry B</i> , 2008, 112, 4435-4440.	2.6	39
75	Elementary Steps of Enzymatic Oxidation of Nifedipine Catalyzed by Horseradish Peroxidase. <i>Journal of Physical Chemistry B</i> , 2006, 110, 21232-21237.	2.6	8
76	Host-Guest Complexes of Carotenoids with β -Glycyrrhizic Acid. <i>Journal of Physical Chemistry B</i> , 2006, 110, 6991-6998.	2.6	52
77	Paramagnetic intermediates in the photoinduced reaction between dodecamethylcyclohexasilane and 9,10-phenanthraquinone: Time-resolved CIDNP study. <i>Journal of Organometallic Chemistry</i> , 2006, 691, 1411-1418.	1.8	3
78	Antioxidant and redox properties of supramolecular complexes of carotenoids with β -glycyrrhizic acid. <i>Free Radical Biology and Medicine</i> , 2006, 40, 1804-1809.	2.9	55
79	IMPROVED METHOD FOR THE CYCLIZATION OF <i>ortho</i> -ALKYNYLBENZENEDIAZONIUM SALTS. <i>Organic Preparations and Procedures International</i> , 2006, 38, 476-480.	1.3	6
80	Complexation of Lappaconitine with Glycyrrhizic Acid: Stability and Reactivity Studies. <i>Journal of Physical Chemistry B</i> , 2005, 109, 24526-24530.	2.6	42
81	β -Ionone cyclodextrins inclusion complexes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2004, 161, 261-267.	3.9	28
82	Electron transfer mediated geometrical photoisomerization of β , β -unsaturated ketones in the presence of electron donors in solution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2002, 153, 77-82.	3.9	3
83	Single electron transfer in the phototransformations of β -ionone in the presence of electron acceptors. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1999, 128, 65-74.	3.9	10
84	Photoinitiated electron transfer interaction of all-trans retinal with electron donors and acceptors. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1997, 107, 55-62.	3.9	8
85	The mechanism of oxidation of NADH analogues 4. Photooxidation of N-acetyl-substituted 1,4-dihydropyridine in the presence of quinones. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1997, 111, 61-64.	3.9	9
86	The mechanisms of the oxidation of NADH analogues 1. Photochemical oxidation of N-unsubstituted 1,4-dihydropyridines by various acceptors. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1993, 73, 151-157.	3.9	28
87	The mechanisms of the oxidation of NADH analogues 2. N-Methyl-substituted 1,4-dihydropyridines. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1993, 73, 159-163.	3.9	24
88	The mechanisms of oxidation of NADH analogues 3. Stimulated nuclear polarization (SNP) and chemically induced dynamic nuclear polarization (CIDNP) in low magnetic fields in photo-oxidation reactions of 1,4-dihydropyridines with quinones. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1993, 74, 75-79.	3.9	17
89	Study of chemically induced dynamic nuclear polarization field dependencies in the photoreduction of quinones by amines. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1990, 55, 43-51.	3.9	7
90	Application of the semiclassical approximation for the description of CIDNP effects in low magnetic fields in real multinuclear radical pairs with non-equivalent nuclei. <i>Chemical Physics Letters</i> , 1987, 136, 31-34.	2.6	4

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91	Application of the semiclassical description of hyperfine interaction to studies of the dependence of the CIDNP effect on an external magnetic field. Chemical Physics Letters, 1986, 129, 357-361.	2.6	11
92	CIDNP-detected ESR of radical pairs in the photolysis of quinones. Chemical Physics Letters, 1985, 117, 220-223.	2.6	25
93	Mutual effects of nuclei on ¹ H CIDNP formation in benzophenone photoreduction. Chemical Physics Letters, 1985, 114, 566-570.	2.6	3
94	Radiofrequency labelling of molecules in chemical reactions. Chemical Physics Letters, 1983, 96, 108-113.	2.6	10
95	An investigation of the mechanism of the reaction of allyltriethylstannane with bromotrichloromethane by radiofrequency probing and chemically induced dynamic nuclear polarization (CIDNP). Journal of Organometallic Chemistry, 1983, 259, 295-300.	1.8	8
96	Peculiarities of Electron Transfer in Chiral Linked Systems. , 0, , .		2