Nikolay E Polyakov

List of Publications by Year
in descending order

96	2,172	186265	276875
papers	citations	28 h-index	41 g-index

98	98	98	1589
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Glycyrrhizic acid as a multifunctional drug carrier â€“ From physicochemical properties to biomedical applications: A modern insight on the ancient drug. International Journal of Pharmaceutics, 2019, 559, 271-279.	5.2	122
2	Preparation of curcumin self-micelle solid dispersion with enhanced bioavailability and cytotoxic activity by mechanochemistry. Drug Delivery, 2018, 25, 198-209.	5.7	102
3	Redox Interactions of Vitamin C and Iron: Inhibition of the Pro-Oxidant Activity by Deferiprone. International Journal of Molecular Sciences, 2020, 21, 3967.	4.1	88
4	Spectroscopic and molecular dynamics characterization of glycyrrhizin membrane-modifying activity. Colloids and Surfaces B: Biointerfaces, 2016, 147, 459-466.	5.0	66
5	Enhanced solubility and bioavailability of simvastatin by mechanochemically obtained complexes. International Journal of Pharmaceutics, 2017, 534, 108-118.	5.2	64
6	Free Radical Formation in Novel Carotenoid Metal Ion Complexes of Astaxanthin. Journal of Physical Chemistry B, 2010, 114, 16968-16977.	2.6	59
7	Solubilization and stabilization of macular carotenoids by water soluble oligosaccharides and polysaccharides. Archives of Biochemistry and Biophysics, 2015, 572, 58-65.	3.0	59
8	Photochemical and Optical Properties of Water-Soluble Xanthophyll Antioxidants: Aggregation vs Complexation. Journal of Physical Chemistry B, 2013, 117, 10173-10182.	2.6	58
9	Water soluble biocompatible vesicles based on polysaccharides and oligosaccharides inclusion complexes for carotenoid delivery. Carbohydrate Polymers, 2015, 128, 207-219.	10.2	56
10	Antioxidant and redox properties of supramolecular complexes of carotenoids with Î²-glycyrrhizic acid. Free Radical Biology and Medicine, 2006, 40, 1804-1809.	2.9	55
11	Hostâ^'Guest Complexes of Carotenoids with Î²-Glycyrrhizic Acid. Journal of Physical Chemistry B, 2006, 110, 6991-6998.	2.6	52
12	Water Soluble Complexes of Carotenoids with Arabinogalactan. Journal of Physical Chemistry B, 2009, 113, 275-282.	2.6	51
13	Supramolecular Carotenoid Complexes of Enhanced Solubility and Stabilityâ€"The Way of Bioavailability Improvement. Molecules, 2019, 24, 3947.	3.8	51
14	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
15	Inhibition of Fe2+- and Fe3+- induced hydroxyl radical production by the iron-chelating drug deferiprone. Free Radical Biology and Medicine, 2015, 78, 118-122.	2.9	48
16	Retinal accumulation of zeaxanthin, lutein, and Î²-carotene in mice deficient in carotenoid cleavage enzymes. Experimental Eye Research, 2017, 159, 123-131.	2.6	46
17	Trying to Solve the Puzzle of the Interaction of Ascorbic Acid and Iron: Redox, Chelation and Therapeutic Implications. Medicines (Basel, Switzerland), 2020, 7, 45.	1.4	43
18	Complexation of Lappaconitine with Glycyrrhizic Acid:Â Stability and Reactivity Studies. Journal of Physical Chemistry B, 2005, 109, 24526-24530.	2.6	42

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19	Complex of Calcium Receptor Blocker Nifedipine with Glycyrrhizic Acid. Journal of Physical Chemistry B, 2008, 112, 4435-4440.	2.6	39
20	Disodium salt of glycyrrhizic acid â€“ A novel supramolecular delivery system for anthelmintic drug praziquantel. Journal of Drug Delivery Science and Technology, 2019, 50, 66-77.	3.0	36
21	Polysaccharide arabinogalactan from larchLarix sibiricaas carrier for molecules of salicylic and acetylsalicylic acid: preparation, physicochemical and pharmacological study. Drug Delivery, 2015, 22, 400-407.	5.7	35
22	Glycyrrhizin-Assisted Transport of Praziquantel Anthelmintic Drug through the Lipid Membrane: An Experiment and MD Simulation. Molecular Pharmaceutics, 2019, 16, 3188-3198.	4.6	34
23	Redox-Active Quinone Chelators: Properties, Mechanisms of Action, Cell Delivery, and Cell Toxicity. Antioxidants and Redox Signaling, 2018, 28, 1394-1403.	5.4	31
24	Enhancement of the Photocatalytic Activity of TiO₂ Nanoparticles by Water-Soluble Complexes of Carotenoids. Journal of Physical Chemistry B, 2010, 114, 14200-14204.	2.6	30
25	Preparation, physicochemical and pharmacological study of curcumin solid dispersion with an arabinogalactan complexation agent. International Journal of Biological Macromolecules, 2019, 128, 158-166.	7.5	30
26	Effect of natural polysaccharides and oligosaccharides on the permeability of cell membranes. Russian Chemical Bulletin, 2017, 66, 129-135.	1.5	29
27	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
28	The mechanisms of the oxidation of NADH analogues 1. Photochemical oxidation of N-unsubstituted 1,4-dihydropyridines by various acceptors. Journal of Photochemistry and Photobiology A: Chemistry, 1993, 73, 151-157.	3.9	28
29	Î²-Ionone cyclodextrins inclusion complexes. Journal of Photochemistry and Photobiology A: Chemistry, 2004, 161, 261-267.	3.9	28
30	Photo Protection of Haematococcus pluvialis Algae by Astaxanthin: Unique Properties of Astaxanthin Deduced by EPR, Optical and Electrochemical Studies. Antioxidants, 2017, 6, 80.	5.1	28
31	Effective inhibition of copper-catalyzed production of hydroxyl radicals by deferiprone. Journal of Biological Inorganic Chemistry, 2019, 24, 331-341.	2.6	27
32	CIDNP-detected ESR of radical pairs in the photolysis of quinones. Chemical Physics Letters, 1985, 117, 220-223.	2.6	25
33	The mechanisms of the oxidation of NADH analogues 2. N-Methyl-substituted 1,4-dihydropyridines. Journal of Photochemistry and Photobiology A: Chemistry, 1993, 73, 159-163.	3.9	24
34	Supramolecular Complex of Ibuprofen with Larch Polysaccharide Arabinogalactan: Studies on Bioavailability and Pharmacokinetics. European Journal of Drug Metabolism and Pharmacokinetics, 2017, 42, 431-440.	1.6	24
35	Carotenoid Radicals: Cryptochemistry of Natural Colorants. Chemistry Letters, 2010, 39, 148-155.	1.3	23
36	Membrane-modifying activity of glycyrrhizic acid. Russian Chemical Bulletin, 2015, 64, 1555-1559.	1.5	23

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37	Mechanistic Insights of Chelator Complexes with Essential Transition Metals: Antioxidant/Pro-Oxidant Activity and Applications in Medicine. International Journal of Molecular Sciences, 2022, 23, 1247.	4.1	23
38	Structure of dimers of glycyrrhizic acid in water and their complexes with cholesterol: Molecular dynamics simulation. Journal of Structural Chemistry, 2015, 56, 67-76.	1.0	21
39	Glycyrrhizin-induced changes in phospholipid dynamics studied by 1H NMR and MD simulation. Archives of Biochemistry and Biophysics, 2020, 686, 108368.	3.0	21
40	NMR Relaxation Study of Cholesterol Binding with Plant Metabolites. Applied Magnetic Resonance, 2011, 41, 283-294.	1.2	19
41	Atorvastatin calcium inclusion complexation with polysaccharide arabinogalactan and saponin disodium glycyrrhizate for increasing of solubility and bioavailability. Drug Delivery and Translational Research, 2018, 8, 1200-1213.	5.8	18
42	Preparation of astaxanthin micelles self-assembled by a mechanochemical method from hydroxypropyl Î²-cyclodextrin and glyceryl monostearate with enhanced antioxidant activity. International Journal of Pharmaceutics, 2021, 605, 120799.	5.2	18
43	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. Journal of Photochemistry and Photobiology A: Chemistry, 1993, 74, 75-79.	3.9	17
44	Arabinogalactan and glycyrrhizin based nanopesticides as novel delivery systems for plant protection. Environmental Science and Pollution Research, 2020, 27, 5864-5872.	5.3	17
45	EPR Study of the Astaxanthin n-Octanoic Acid Monoester and Diester Radicals on Silicaâ€“Alumina. Journal of Physical Chemistry B, 2012, 116, 13200-13210.	2.6	15
46	Mechanochemical preparation of kaempferol intermolecular complexes for enhancing the solubility and bioavailability. Drug Development and Industrial Pharmacy, 2018, 44, 1924-1932.	2.0	15
47	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
48	Natural Poly- and Oligosaccharides as Novel Delivery Systems for Plant Protection Compounds. Journal of Agricultural and Food Chemistry, 2017, 65, 6582-6587.	5.2	13
49	Solubility, Permeability, Anti-Inflammatory Action and In Vivo Pharmacokinetic Properties of Several Mechanochemically Obtained Pharmaceutical Solid Dispersions of Nimesulide. Molecules, 2021, 26, 1513.	3.8	12
50	Mechanism of the enhancing effect of glycyrrhizin on nifedipine penetration through a lipid membrane. Journal of Molecular Liquids, 2021, 344, 117759.	4.9	12
51	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
52	pH-Sensitive Glycyrrhizin Based Vesicles for Nifedipine Delivery. Molecules, 2021, 26, 1270.	3.8	11
53	Research on Preparation of 5-ASA Colon-Specific Hydrogel Delivery System without Crosslinking Agent by Mechanochemical Method. Pharmaceutical Research, 2021, 38, 693-706.	3.5	11
54	Radiofrequency labelling of molecules in chemical reactions. Chemical Physics Letters, 1983, 96, 108-113.	2.6	10

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55	Single electron transfer in the phototransformations of Î²-ionone in the presence of electron acceptors. Journal of Photochemistry and Photobiology A: Chemistry, 1999, 128, 65-74.	3.9	10
56	Investigation the inclusion complexes of valsartan with polysaccharide arabinogalactan from larch Larix sibirica and (2-hydroxypropyl)-Î²-cyclodextrin: preparation, characterization and physicochemical properties. Journal of Inclusion Phenomena and Macrocyclic Chemistry, 2016, 85, 93-104.	1.6	10
57	Effect of Glycyrrhizic Acid and Arabinogalactan on the Membrane Potential of Rat Thymocytes Studied by Potential-Sensitive Fluorescent Probe. Journal of Membrane Biology, 2020, 253, 343-356.	2.1	10
58	Antioxidant Activity of Deferasirox and Its Metal Complexes in Model Systems of Oxidative Damage: Comparison with Deferiprone. Molecules, 2021, 26, 5064.	3.8	10
59	The mechanism of oxidation of NADH analogues 4. Photooxidation of N-acetyl-substituted 1,4-dihydropyridine in the presence of quinones. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 111, 61-64.	3.9	9
60	Spin effects in intramolecular electron transfer in naproxen-N-methylpyrrolidine dyad. Chemical Physics Letters, 2011, 516, 51-55.	2.6	9
61	Stereoselectivity of Electron and Energy Transfer in the Quenching of (S/R)-Ketoprofen-(S)-Tryptophan Dyad Excited State. International Journal of Molecular Sciences, 2020, 21, 5370.	4.1	9
62	Carotenoids: Importance in Daily Lifeâ€"Insight Gained from EPR and ENDOR. Applied Magnetic Resonance, 2021, 52, 1093-1112.	1.2	9
63	The Interplay of Ascorbic Acid with Quinones-Chelatorsâ€"Influence on Lipid Peroxidation: Insight into Anticancer Activity. Antioxidants, 2022, 11, 376.	5.1	9
64	An investigation of the mechanism of the reation 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
65	Photoinitiated electron transfer interaction of all-trans retinal with electron donors and acceptors. Journal of Photochemistry and Photobiology A: Chemistry, 1997, 107, 55-62.	3.9	8
66	Elementary Steps of Enzymatic Oxidation of Nifedipine Catalyzed by Horseradish Peroxidase. Journal of Physical Chemistry B, 2006, 110, 21232-21237.	2.6	8
67	CIDNP and EPR Study of Phototransformation of Lappaconitine Derivatives in Solution. Journal of Physical Chemistry B, 2010, 114, 4646-4651.	2.6	8
68	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
69	Light-Stimulated Generation of Free Radicals by Quinones-Chelators. Zeitschrift Fur Physikalische Chemie, 2017, 231, 369-389.	2.8	8
70	Spin effects as a tool to study photoinduced processes in (S/R)-ketoprofen-(S)-N-methylpyrrolidine dyads. Journal of Chemical Physics, 2019, 151, 245101.	3.0	8
71	New insights into the nature of short-lived paramagnetic intermediates of ketoprofen. Photo-CIDNP study. Journal of Photochemistry and Photobiology A: Chemistry, 2020, 392, 112383.	3.9	8
72	Study of chemically induced dynamic nuclear polarization field dependencies in the photoreduction of quinones by amines. Journal of Photochemistry and Photobiology A: Chemistry, 1990, 55, 43-51.	3.9	7

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73	Time-Resolved Fluorescence Study of Exciplex Formation in Diastereomeric Naproxenâ€“Pyrrolidine Dyads. Journal of Physical Chemistry B, 2013, 117, 16206-16211.	2.6	7
74	Improving the Efficiency and Safety of Aspirin by Complexation with the Natural Polysaccharide Arabinogalactan. Current Drug Delivery, 2016, 13, 582-589.	1.6	7
75	Ascorbate-and iron-driven redox activity of Dp44mT and Emodin facilitates peroxidation of micelles and bicelles. Biochimica Et Biophysica Acta - General Subjects, 2022, 1866, 130078.	2.4	7
76	Photoinduced Oxidation of Lipid Membranes in the Presence of the Nonsteroidal Anti-Inflammatory Drug Ketoprofen. Membranes, 2022, 12, 251.	3.0	7
77	IMPROVED METHOD FOR THE CYCLIZATION OFortho-ALKYNYLBENZENEDIAZONIUM SALTS. Organic Preparations and Procedures International, 2006, 38, 476-480.	1.3	6
78	Experimental and Theoretical Study of Emodin Interaction with Phospholipid Bilayer and Linoleic Acid. Applied Magnetic Resonance, 2020, 51, 951-960.	1.2	6
79	Stereoselectivity of Interaction of Nonsteroidal Anti-Inflammatory Drug S-Ketoprofen with L/D-Tryptophan in Phospholipid Membranes. Membranes, 2022, 12, 460.	3.0	6
80	Phototransformation products of the alkaloid lappaconitine: Multinuclear NMR study. Journal of Photochemistry and Photobiology A: Chemistry, 2008, 197, 290-294.	3.9	5
81	Measuring Ti(III)â^'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
82	NMR investigation of photoinduced chiral inversion in (R)/(S)-naproxenâ€“(S)-tryptophan linked system. Mendeleev Communications, 2019, 29, 260-262.	1.6	5
83	Role of Chiral Configuration in the Photoinduced Interaction of D- and L-Tryptophan with Optical Isomers of Ketoprofen in Linked Systems. International Journal of Molecular Sciences, 2021, 22, 6198.	4.1	5
84	Application of the semiclassical approximation for the description of CIDNP effects in low magnetic fields in real multinuclear radical pairs with non-equivalent nuclei. Chemical Physics Letters, 1987, 136, 31-34.	2.6	4
85	Mechanically induced solvent-free esterification method at room temperature. RSC Advances, 2021, 11, 5080-5085.	3.6	4
86	Study of supramolecular complex of nifedipine with arabinogalactan on Wistar and ISIAH rats. Therapeutic Delivery, 2021, 12, 119-131.	2.2	4
87	Physicochemical and Toxic Properties of Novel Genipin Drug Delivery Systems Prepared by Mechanochemistry. Current Drug Delivery, 2018, 15, 727-736.	1.6	4
88	Chiral Linked Systems as a Model for Understanding D-Amino Acids Influence on the Structure and Properties of Amyloid Peptides. International Journal of Molecular Sciences, 2022, 23, 3060.	4.1	4
89	Mutual effects of nuclei on 1H CIDNP formation in benzophenone photoreduction. Chemical Physics Letters, 1985, 114, 566-570.	2.6	3
90	Electron transfer mediated geometrical photoisomerization of Î±,Î²-unsaturated ketones in the presence of electron donors in solution. Journal of Photochemistry and Photobiology A: Chemistry, 2002, 153, 77-82.	3.9	3

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91	Paramagnetic intermediates in the photoinduced reaction between dodecamethylcyclohexasilane and 9,10-phenanthraquinone: Time-resolved CIDNP study. Journal of Organometallic Chemistry, 2006, 691, 1411-1418.	1.8	3
92	Optical Configuration Effect on the Structure and Reactivity of Diastereomers Revealed by Spin Effects and Molecular Dynamics Calculations. International Journal of Molecular Sciences, 2022, 23, 38.	4.1	3
93	Mechanism of Đ¡-Đ•cyclization of alkynylanthraquinones into thienoanthraquinones with the participation of sodium sulfide. Tetrahedron, 2017, 73, 6334-6340.	1.9	2
94	Peculiarities of Electron Transfer in Chiral Linked Systems. , 0, , .		2
95	Preparation of DNC Solid Dispersion by a Mechanochemical Method with Glycyrrhizic Acid and Polyvinylpyrrolidone to Enhance Bioavailability and Activity. Polymers, 2022, 14, 2037.	4.5	2
96	Self-assembled nanocapsules of celery (Apium graveolens Linn) seed oil: Mechanochemical preparation, characterization and urate-lowering activity. Journal of Drug Delivery Science and Technology, 2021, 66, 102810.	3.0	1