Sergei Makarov

List of Publications by Year
in descending order

101
papers

1,179
citations

394421
19
h-index

477307
29
g-index

101
all docs

101
docs citations

101
times ranked

864
citing authors

#	Article	IF	Citations
1	A Possible Mechanism for Thiourea-Based Toxicities:Â Kinetics and Mechanism of Decomposition of Thiourea Dioxides in Alkaline Solutions1. Journal of Physical Chemistry B, 2001, 105, 12634-12643.	2.6	56
2	Kinetics and Mechanism of the Cobalt Phthalocyanine Catalyzed Reduction of Nitrite and Nitrate by Dithionite in Aqueous Solution. Inorganic Chemistry, 2003, 42, 618-624.	4.0	48
3	Application of metalâ€“organic frameworks for purification of vegetable oils. Food Chemistry, 2016, 190, 103-109.	8.2	48
4	Recent Developments in the Chemistry of Thiourea Oxides. Chemistry - A European Journal, 2014, 20, 14164-14176.	3.3	44
5	Cobalamin reduction by dithionite. Evidence for the formation of a six-coordinate cobalamin(ii) complex. Dalton Transactions, 2011, 40, 9831.	3.3	43
6	Silver ion reduction with peat fulvic acids. Russian Journal of Applied Chemistry, 2009, 82, 545-548.	0.5	39
7	Reactive oxygen species in aerobic decomposition of thiourea dioxidesâ€Šâ€. Dalton Transactions RSC, 2000, , 511-514.	2.3	38
8	Kinetics and Mechanism of the Iron Phthalocyanine Catalyzed Reduction of Nitrite by Dithionite and Sulfoxylate in Aqueous Solution. Inorganic Chemistry, 2005, 44, 6470-6475.	4.0	37
9	Kinetics and Mechanism of the Reaction of Hydrogen Sulfide with Diaquacobinamide in Aqueous Solution. European Journal of Inorganic Chemistry, 2014, 2014, 4123-4133.	2.0	35
10	New and Surprising Experimental Results from the Oxidation of Sulfinic and Sulfonic Acids. Journal of Physical Chemistry A, 1998, 102, 6786-6792.	2.5	34
11	Structure and stability of aminoiminomethanesulfonic acid. Inorganica Chimica Acta, 1999, 286, 149-154.	2.4	31
12	Redox non-innocence of a nitrido bridge in a methane-activating dimer of iron phthalocyanine. New Journal of Chemistry, 2011, 35, 1140.	2.8	31
13	Sodium dithionite and its relatives: past and present. Journal of Sulfur Chemistry, 2013, 34, 444-449.	2.0	31
14	Reactions of methyl viologen and nitrite with thiourea dioxide. New opportunities for an old reductant. Dalton Transactions RSC, 2002, , 4074-4076.	2.3	30
15	Comparative study of reaction of cobalamin and cobinamide with thiocyanate. Journal of Inorganic Biochemistry, 2013, 125, 32-39.	3.5	30
16	Reactive Oxygen Species in the Aerobic Decomposition of Sodium Hydroxymethanesulfinate. Archives of Biochemistry and Biophysics, 1999, 367, 289-296.	3.0	28
17	Kinetics and Mechanism of the Reaction of Hydrogen Sulfide with Cobalamin in Aqueous Solution. European Journal of Inorganic Chemistry, 2014, 2014, 852-862.	2.0	27
18	Kinetics and mechanism of the Co(ii)-assisted oxidation of thioureas by dioxygen. Dalton Transactions, 2005, , 1117.	3.3	24

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19	Kinetics and mechanism of oxidation of super-reduced cobalamin and cobinamide species by thiosulfate, sulfite and dithionite. Dalton Transactions, 2013, 42, 15307.	3.3	24
20	Cobalt 4-octasulfophenyltetrapyrazinoporphyrazine as a catalyst for the oxidation of organic substrates with atmospheric oxygen. Kinetics and Catalysis, 2007, 48, 660-663.	1.0	17
21	Interaction of cyanocobalamin with sulfur-containing reducing agents in aqueous solutions. Russian Journal of Physical Chemistry A, 2013, 87, 44-48.	0.6	17
22	Stability and catalytic properties of Î¼-oxo and Î¼-nitrido dimeric iron tetrasulfophthalocyanines in the oxidation of Orange II by <i>tert</i>-butylhydroperoxide. Journal of Porphyrins and Phthalocyanines, 2014, 18, 604-613.	0.8	16
23	Kinetics and mechanism of the Co(II)-assisted oxidation of l-ascorbic acid by dioxygen and nitrite in aqueous solution. Dalton Transactions, 2009, , 10541.	3.3	15
24	Computational investigations on the electronic structure and reactivity of thiourea dioxide: sulfoxylate formation, tautomerism and dioxygen liberation. Journal of Sulfur Chemistry, 2010, 31, 27-39.	2.0	15
25	Acid-base properties and stability of sulfoxylic acid in aqueous solutions. Russian Journal of Inorganic Chemistry, 2010, 55, 301-304.	1.3	14
26	Redox turnover of organometallic B12 cofactors recycles vitamin C: Sulfur assisted reduction of dehydroascorbic acid by cob(II)alamin. Journal of Organometallic Chemistry, 2017, 839, 53-59.	1.8	13
27	Adduct of Aquacobalamin with Hydrogen Peroxide. Inorganic Chemistry, 2021, 60, 12681-12684.	4.0	13
28	Kinetics and mechanism of water substitution in the low-spin Fe(ii) complex of 4-octasulfophenylpyrazinoporphyrazineElectronic supplementary information (ESI) available: A total of ten figures including 1H NMR spectra, kinetic traces, Eyring plots and plots of kobs as a function of pressure. See http://www.rsc.org/suppdata/dt/b3/b311695f/. Dalton Transactions, 2004, , 429.	3.3	12
29	Sirohemeâ€containing sulfite reductase: A density functional investigation of the mechanism. International Journal of Quantum Chemistry, 2012, 112, 900-908.	2.0	12
30	Kinetics and Mechanism of the Oxidation of Thiourea Dioxide by Iodine in a Slightly Acidic Medium. Inorganic Chemistry, 2017, 56, 4679-4687.	4.0	12
31	The radical versus ionic mechanisms of reduced cobalamin inactivation by tert-butyl hydroperoxide and hydrogen peroxide in aqueous solution. New Journal of Chemistry, 2021, 45, 535-543.	2.8	12
32	Biosynthesis, Quantification and Genetic Diseases of the Smallest Signaling Thiol Metabolite: Hydrogen Sulfide. Antioxidants, 2021, 10, 1065.	5.1	12
33	Electromerism and linkage isomerism in biologically-relevant FeSO complexes. Journal of Inorganic Biochemistry, 2013, 118, 13-20.	3.5	11
34	Redox activities of mono- and binuclear forms of low-molecular and protein-bound dinitrosyl iron complexes with thiol-containing ligands. Nitric Oxide - Biology and Chemistry, 2014, 40, 100-109.	2.7	11
35	Kinetic Evidence of Tautomerism of Thiourea Dioxide in Aqueous Acidic Solutions. European Journal of Inorganic Chemistry, 2014, 2014, 1875-1879.	2.0	11
36	Effect of amino acids on the interaction between cobalamin(II) and dehydroascorbic acid. Russian Journal of Physical Chemistry A, 2016, 90, 596-600.	0.6	11

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37	Synthesis of the iron phthalocyaninate radical cation Î¼-nitrido dimer and its interaction with hydrogen peroxide. Russian Journal of Physical Chemistry A, 2016, 90, 704-706.	0.6	11
38	Studies on reaction of glutathionylcobalamin with hypochlorite. Evidence of protective action of glutathionyl-ligand against corrin modification by hypochlorite. BioMetals, 2017, 30, 757-764.	4.1	11
39	Tautomerization of thiourea dioxide in aqueous solution. Russian Chemical Bulletin, 2001, 50, 203-205.	1.5	10
40	A new route to carbon monoxide adducts of heme proteins. Journal of Porphyrins and Phthalocyanines, 2008, 12, 1096-1099.	0.8	10
41	Reactions of Cobinamide with Glucose and Fructose. Macroheterocycles, 2012, 5, 260-265.	0.5	10
42	Oâ€“S Bond Activation in Structures Isoelectronic with Ferric Peroxide Species Known in Oâ€“Oâ€Activating Enzymes: Relevance for Sulfide Activation and Sulfite Reductases. European Journal of Inorganic Chemistry, 2014, 2014, 5827-5837.	2.0	9
43	â€˜Super-reducedâ€™ iron under physiologically-relevant conditions. Dalton Transactions, 2010, 39, 1464-1466.	3.3	8
44	Mechanism Involving Hydrogen Sulfite Ions, Chlorite Ions, and Hypochlorous Acid as Key Intermediates of the Autocatalytic Chlorine Dioxideâ€“Thiourea Dioxide Reaction. European Journal of Inorganic Chemistry, 2015, 2015, 5011-5020.	2.0	8
45	Reactions of aquacobalamin and cob(II)alamin with chlorite and chlorine dioxide. Journal of Biological Inorganic Chemistry, 2017, 22, 453-459.	2.6	8
46	Characterization of the complex between native and reduced bovine serum albumin with aquacobalamin and evidence of dual tetrapyrrole binding. Journal of Biological Inorganic Chemistry, 2018, 23, 725-738.	2.6	8
47	Studies on the Reduction of Dehydroascorbic Acid by Glutathione in the Presence of Aquahydroxocobinamide. European Journal of Inorganic Chemistry, 2018, 2018, 2987-2992.	2.0	8
48	Acid-base properties of sulfoxylate ion. Russian Journal of Inorganic Chemistry, 2006, 51, 1149-1152.	1.3	7
49	Comparative study of reactions between Âµ-nitrido- or Âµ-oxo-bridged iron tetrasulfophthalocyanines and sulfur-containing reductants. Journal of the Serbian Chemical Society, 2013, 78, 1513-1530.	0.8	7
50	Thiolatocobalamins repair the activity of pathogenic variants of the human cobalamin processing enzyme CblC. Biochimie, 2021, 183, 108-125.	2.6	7
51	Reaction of thiourea dioxides with amines. Russian Journal of General Chemistry, 2004, 74, 1383-1385.	0.8	6
52	A new procedure for the spectrophotometric determination of nitrogen(II) oxide in solutions. Journal of Analytical Chemistry, 2005, 60, 21-23.	0.9	6
53	A computational analysis of electromerism in hemoprotein Fe(I) models. Journal of Biological Inorganic Chemistry, 2010, 15, 977-986.	2.6	6
54	Axial ligation in water-soluble copper porphyrinates: contrasts between EPR and UVâ€“vis. Inorganic Chemistry Communication, 2012, 18, 1-3.	3.9	6

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55	Asymmetry within the Fe(NO)2 moiety of dithiolate dinitrosyl iron complexes. Inorganica Chimica Acta, 2014, 418, 42-50.	2.4	6
56	Synthesis of vitamin B12 derivatives with sodium hydroxymethanesulfinate. Journal of Porphyrins and Phthalocyanines, 2018, 22, 1092-1098.	0.8	6
57	Effect of complexation between cobinamides and bovine serum albumin on their reactivity toward cyanide. Reaction Kinetics, Mechanisms and Catalysis, 2022, 135, 1469-1483.	1.7	6
58	Cobalt tetrasulfophthalocyaninate as a catalyst of the reduction of nitrite with thiourea dioxide. Russian Journal of Physical Chemistry A, 2009, 83, 2050-2053.	0.6	5
59	Metal-organic frameworks based on terephthalic acid: Sorbents of organic dyes. Russian Journal of Applied Chemistry, 2014, 87, 1065-1069.	0.5	5
60	Redox and linkage isomerism with ligands relevant to oxidative and nitrosative stress in cobalamin. Polyhedron, 2014, 78, 72-84.	2.2	5
61	Interaction between super-reduced cobalamin and selenite. Russian Journal of Physical Chemistry A, 2017, 91, 2404-2408.	0.6	5
62	Kinetic and mechanistic studies of the first step of the reaction between thiols and selenite. Reaction Kinetics, Mechanisms and Catalysis, 2020, 131, 555-566.	1.7	5
63	Reaction of thiourea S,S-dioxides with dyes containing carbonyl or azo groups. Russian Journal of General Chemistry, 2006, 76, 1599-1603.	0.8	4
64	Oxidation of azo dyes with inorganic peroxides in the presence of cationic surfactants. Russian Journal of Applied Chemistry, 2008, 81, 1573-1577.	0.5	4
65	Comparative studies of reaction of cobalamin (II) and cobinamide (II) with sulfur dioxide. Journal of Biological Inorganic Chemistry, 2017, 22, 969-975.	2.6	4
66	Mechanism of the Reaction between Cobalamin(II) and Periodate. Russian Journal of Physical Chemistry A, 2018, 92, 2182-2186.	0.6	4
67	Mechanistic studies on the reaction between glutathionylcobalamin and selenocysteine. Journal of Coordination Chemistry, 2019, 72, 1298-1306.	2.2	4
68	Mechanism of cyanocobalamin chlorination by hypochlorous acid. Journal of Biological Inorganic Chemistry, 2021, 26, 427-434.	2.6	4
69	Interaction of Aquacobalamin and Diaquacobinamide with Cyanamide. Macroheterocycles, 2013, 6, 262-267.	0.5	4
70	Investigation of the redox interaction between iron(III) 5,10,15,20-tetrakis(â€Šp-sulfonatophenyl)porphyrinate and aminoiminomethanesulfinic acid in aqueous solution. Journal of the Chemical Society Dalton Transactions, 1998, , 2915-2920.	1.1	3
71	Surface modification of composites with metal nanoparticles. Inorganic Materials, 2010, 46, 1192-1197.	0.8	3
72	Thermodynamic and structural properties of aqueous linear diol solutions. Journal of Structural Chemistry, 2013, 54, 528-533.	1.0	3

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73	Efficient synthesis of aluminum- and zinc-containing metal-organic frameworks. Inorganic Materials, 2015, 51, 236-240.	0.8	3
74	Kinetics of reactions of aquacobalamin with aspartic and glutamic acids and their amides in water solutions. Russian Journal of Physical Chemistry A, 2017, 91, 658-661.	0.6	3
75	Studies of reaction of tetramethylthiourea with hydrogen peroxide: evidence of formation of tetramethylthiourea monoxide as a key intermediate of the reaction. Journal of Sulfur Chemistry, 2017, 38, 496-509.	2.0	3
76	Kinetics and mechanism of the reaction between aquacobalamin and isoniazid. Russian Journal of Physical Chemistry A, 2017, 91, 1839-1844.	0.6	3
77	Kinetic and Mechanistic Studies on the Reaction between Aquacobalamin and Selenocysteine. European Journal of Inorganic Chemistry, 2017, 2017, 4174-4179.	2.0	3
78	Studies on the interaction of aquacobalamin with cysteinesulfinic and cysteic acids, hypotaurine and taurine. Journal of Coordination Chemistry, 2018, 71, 3194-3206.	2.2	3
79	TDO structure investigation in aqueous solution by TOF-MS, UV, Raman and quantum chemistry calculations. Journal of Sulfur Chemistry, 2019, 40, 426-434.	2.0	3
80	Catalytic effect of riboflavin on electron transfer from NADH to aquacobalamin. Journal of Biological Inorganic Chemistry, 2020, 25, 125-133.	2.6	3
81	The interaction of iron octasulfophenyltetrapyrazinoporphyrazinate with the hydroxyl ion and cysteine. Russian Journal of Physical Chemistry A, 2007, 81, 901-905.	0.6	2
82	The kinetics of nitrite reduction by thiourea dioxide in the presence of cobalt octasulfophenyltetrapyrazinoporphyrazine. Russian Journal of Physical Chemistry A, 2010, 84, 573-577.	0.6	2
83	Hydrocarbon Oxygenation by Metal Nitrite Adducts: Theoretical Comparison with Ferryl-Based Oxygenation Agents. European Journal of Inorganic Chemistry, 2010, 2010, 1129-1132.	2.0	2
84	Secondary material resources of oil-producing plants. Russian Journal of General Chemistry, 2012, 82, 969-976.	0.8	2
85	Effect of Glycine and Monoethanolamine on the Stability and Reductive Activity of Thiourea Dioxide in Aqueous Solutions. Russian Journal of General Chemistry, 2018, 88, 646-649.	0.8	2
86	The decomposition mechanism for TDO in aqueous solution within 25â€“95â€¯Â°C temperature range. Chemical Physics Letters, 2019, 731, 136603.	2.6	2
87	Kinetics and mechanism of the reaction of cyanocobalamin with potassium hydroxide in non-aqueous media. New Journal of Chemistry, 2019, 43, 7708-7715.	2.8	2
88	Catalytic effect of tetrasulfonated cobalt phthalocyanine on selenite reduction by dithionite. Reaction Kinetics, Mechanisms and Catalysis, 2020, 129, 7-16.	1.7	2
89	Mechanism of aquacobalamin decomposition in aqueous aerobic solutions containing glucose oxidase and glucose. Reaction Kinetics, Mechanisms and Catalysis, 2021, 133, 73-84.	1.7	2
90	Effect of <i>trans</i>-ligand on properties of nitric oxide motif in nitrosylcobinamide. Journal of Coordination Chemistry, 2022, 75, 1606-1616.	2.2	2

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91	Chemical synthesis of stable nano-sized water-organic copper dispersions. Protection of Metals, 2008, 44, 468-470.	0.2	1
92	The interaction of cobalt tetrasulfophthalocyanine and octasulfophenyltetrapyrazinoporphyrazine with ascorbic acid. Russian Journal of Physical Chemistry A, 2010, 84, 617-623.	0.6	1
93	Interaction of hydrogen peroxide and thiourea or its oxides with terephthalic acid. Russian Journal of General Chemistry, 2017, 87, 698-702.	0.8	1
94	Comparative Study of Redox Reactions of Aqua- and Thiocyanatocobalamin. Russian Journal of General Chemistry, 2018, 88, 958-961.	0.8	1
95	Reaction of Thiourea Dioxide and Hydrogen Peroxide with Coumarin. Russian Journal of General Chemistry, 2018, 88, 1086-1089.	0.8	1
96	Production of Modified Starch Using System Hydrogen Peroxide-Thiourea Dioxide. Russian Journal of Applied Chemistry, 2019, 92, 1513-1516.	0.5	1
97	Interaction of Monosaccharides with Cobalt Tetrasulfophthalocyanine. Macroheterocycles, 2011, 4, 42-46.	0.5	1
98	Kinetic features of the reduction of 1,4-diamino-substituted anthraquinones with sulfur-containing reductants. Russian Journal of General Chemistry, 2007, 77, 1775-1779.	0.8	0
99	Kinetics of the Reaction between Cobinamide and Isoniazid in Aqueous Solutions. Russian Journal of Physical Chemistry A, 2019, 93, 265-270.	0.6	0
100	Studies on the reaction between reduced riboflavin and selenocystine. International Journal of Chemical Kinetics, 2021, 53, 146-153.	1.6	0
101	Synthesis and Properties of Modified Aluminum-Containing Framework Compounds. Inorganic Materials, 2021, 57, 358-366.	0.8	0