Petr V Prikhodchenko

List of Publications by Year
in descending order

63	2,127	257101	233125
papers	citations	24 h-index	45 g-index

69	69	69	2838
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-capacity antimony sulphide nanoparticle-decorated graphene composite as anode for sodium-ion batteries. Nature Communications, 2013, 4, 2922.	5.8	471
2	Nanocrystalline SnS₂coated onto reduced graphene oxide: demonstrating the feasibility of a non-graphitic anode with sulfide chemistry for potassium-ion batteries. Chemical Communications, 2017, 53, 8272-8275.	2.2	197
3	Conversion of Hydroperoxoantimonate Coated Graphenes to Sb₂S₃@Graphene for a Superior Lithium Battery Anode. Chemistry of Materials, 2012, 24, 4750-4757.	3.2	142
4	Nanocrystalline tin disulfide coating of reduced graphene oxide produced by the peroxostannate deposition route for sodium ion battery anodes. Journal of Materials Chemistry A, 2014, 2, 8431.	5.2	114
5	H-Bond Network in Amino Acid Cocrystals with H₂O or H₂O₂. The DFT Study of Serineâ€“H₂O and Serineâ€“H₂O₂. Journal of Physical Chemistry A, 2011, 115, 13657-13663.	1.1	73
6	Zinc Dioxide Nanoparticulates: A Hydrogen Peroxide Source at Moderate pH. Environmental Science & Technology, 2013, 47, 8769-8774.	4.6	70
7	Peroxosolvates: Formation Criteria, H₂O₂ Hydrogen Bonding, and Isomorphism with the Corresponding Hydrates. Crystal Growth and Design, 2017, 17, 214-220.	1.4	54
8	Crystal structures of natural amino acid perhydrates. CrystEngComm, 2011, 13, 2399.	1.3	51
9	GeO₂ Thin Film Deposition on Graphene Oxide by the Hydrogen Peroxide Route: Evaluation for Lithium-Ion Battery Anode. ACS Applied Materials & Interfaces, 2017, 9, 9152-9160.	4.0	46
10	The formation of a peroxoantimonate thin film coating on graphene oxide (GO) and the influence of the GO on its transformation to antimony oxides and elemental antimony. Carbon, 2012, 50, 5463-5471.	5.4	43
11	Graphene oxide organogel electrolyte for quasi solid dye sensitized solar cells. Electrochemistry Communications, 2012, 19, 108-110.	2.3	43
12	Antimony Tin Oxide (ATO) Nanoparticle Formation from H₂O₂ Solutions: a New Generic Film Coating from Basic Solutions. Inorganic Chemistry, 2010, 49, 9110-9112.	1.9	40
13	Glycine and l-serine crystalline perhydrates. Chemical Communications, 2009, , 4224.	2.2	38
14	Cesium Hydroperoxostannate: First Complete Structural Characterization of a Homoleptic Hydroperoxocomplex. Inorganic Chemistry, 2010, 49, 4762-4764.	1.9	36
15	Graphene Oxideâ€Supported Î²â€Tin Telluride Composite for Sodiumâ€and Lithiumâ€Ion Battery Anodes. Energy Technology, 2018, 6, 127-133.	1.8	35
16	The preparation and crystal structures of novel perhydrates Ph4X+Halâ€“Â·nH2O2: anionic hydrogen-bonded chains containing hydrogen peroxide. CrystEngComm, 2005, 7, 664.	1.3	34
17	A model proton-transfer system in the condensed phase: NH4+OOHâ¯, a crystal with short intermolecular H-bonds. Journal of Chemical Physics, 2010, 133, 164506.	1.2	34
18	Hydrogen peroxide induced formation of peroxystannate nanoparticles. Journal of Sol-Gel Science and Technology, 2009, 50, 229-240.	1.1	33

#	Article	IF	Citations
19	Potassium, Cesium, and Ammonium Peroxogermanates with Inorganic Hexanuclear Peroxo Bridged Germanium Anion Isolated from Aqueous Solution. Inorganic Chemistry, 2015, 54, 8058-8065.	1.9	33
20	Brush like polyaniline on vanadium oxide decorated reduced graphene oxide: Efficient electrode materials for supercapacitor. Journal of Energy Storage, 2019, 22, 188-193.	3.9	31
21	Probing electrochemical reactivity in an Sb₂S₃-containing potassium-ion battery anode: observation of an increased capacity. Journal of Materials Chemistry A, 2020, 8, 11424-11434.	5.2	30
22	Preparation of pure hydrogen peroxide and anhydrous peroxide solutions from crystalline serine perhydrate. Tetrahedron, 2010, 66, 5130-5133.	1.0	29
23	Synthesis of high volumetric capacity graphene oxide-supported tellurantimony Na- and Li-ion battery anodes by hydrogen peroxide sol gel processing. Journal of Colloid and Interface Science, 2018, 512, 165-171.	5.0	29
24	Peroxide Coordination of Tellurium in Aqueous Solutions. Chemistry - A European Journal, 2016, 22, 2980-2986.	1.7	26
25	Aqueous stability of alumina and silica perhydrate hydrogels: experiments and computations. Dalton Transactions, 2014, 43, 16614-16625.	1.6	25
26	Crystalline Peroxosolvates: Nature of the Coformer, Hydrogen-Bonded Networks and Clusters, Intermolecular Interactions. Molecules, 2021, 26, 26.	1.7	23
27	Hydrogen Peroxide Insular Dodecameric and Pentameric Clusters in Peroxosolvate Structures. Angewandte Chemie - International Edition, 2017, 56, 15241-15245.	7.2	22
28	Encapsulation of yeast displaying glucose oxidase on their surface in graphene oxide hydrogel scaffolding and its bioactivation. Chemical Communications, 2012, 48, 11957.	2.2	21
29	Vanadium Oxide Thin Film Formation on Graphene Oxide by Microexplosive Decomposition of Ammonium Peroxovanadate and Its Application as a Sodium Ion Battery Anode. Langmuir, 2018, 34, 2741-2747.	1.6	20
30	H₂O₂induced formation of graded composition sodium-doped tin dioxide and template-free synthesis of yolkâ€“shell SnO₂particles and their sensing application. Dalton Transactions, 2017, 46, 16171-16179.	1.6	18
31	Doubly Coated, Organicâ€“Inorganic Paraffin Phase Change Materials: Zinc Oxide Coating of Hermetically Encapsulated Paraffins. Advanced Materials Interfaces, 2019, 6, 1900368.	1.9	18
32	Green Synthesis of a Nanocrystalline Tin Disulfide-Reduced Graphene Oxide Anode from Ammonium Peroxostannate: a Highly Stable Sodium-Ion Battery Anode. ACS Sustainable Chemistry and Engineering, 2020, 8, 5485-5494.	3.2	17
33	Cyclic dipeptide peroxosolvates: first direct evidence for hydrogen bonding between hydrogen peroxide and a peptide backbone. CrystEngComm, 2019, 21, 4961-4968.	1.3	16
34	Enhanced Thermal Buffering of Phase Change Materials by the Intramicrocapsule Sub per Mille CNT Dopant. ACS Applied Materials & Interfaces, 2020, 12, 16227-16235.	4.0	16
35	Antimony and antimony oxide@graphene oxide obtained by the peroxide route as anodes for lithium-ion batteries. Main Group Metal Chemistry, 2015, 38, .	0.6	15
36	Stabilization of hydrogen peroxide by hydrogen bonding in the crystal structure of 2-aminobenzimidazole perhydrate. CrystEngComm, 2020, 22, 2866-2872.	1.3	14

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37	Ammonium and caesium carbonate peroxosolvates: supramolecular networks formed by hydrogen bonds. Acta Crystallographica Section C: Crystal Structure Communications, 2012, 68, i20-i24.	0.4	13
38	Effect of aluminum vacancies on the H 2 O 2 or H 2 O interaction with a gammaâ€AlOOH surface. A solidâ€state DFT study. International Journal of Quantum Chemistry, 2019, 119, e25920.	1.0	13
39	Electro-oxidation of Ruthenium Cyclopentadienyl PTA Complexes in DMF. Journal of the Electrochemical Society, 2007, 154, F7.	1.3	12
40	Crystal structures of non-proteinogenic amino acid peroxosolvates: rare example of H-bonded hydrogen peroxide chains. CrystEngComm, 2018, 20, 7413-7416.	1.3	11
41	Unusual Stabilization of Zinc Peroxide by Manganese Oxide: Mechanistic Understanding by Temperature-Dependent EPR Studies. Journal of Physical Chemistry C, 2019, 123, 20884-20892.	1.5	10
42	Identification of Barium Hydroxo-Hydroperoxostannate Precursor for Low-Temperature Formation of Perovskite Barium Stannate. Inorganic Chemistry, 2020, 59, 18358-18365.	1.9	10
43	Renewable zinc dioxide nanoparticles and coatings. Materials Letters, 2014, 116, 282-285.	1.3	9
44	Crystalline Ammonium Peroxogermanate as a Waste-Free, Fully Recyclable Versatile Precursor for Germanium Compounds. Inorganic Chemistry, 2019, 58, 1905-1911.	1.9	9
45	Hydrogen peroxide solâ€“gel coating of microencapsulated phase change materials by metal oxides. Journal of Sol-Gel Science and Technology, 2020, 95, 649-660.	1.1	9
46	Fast Quantum Approach for Evaluating the Energy of Non-Covalent Interactions in Molecular Crystals: The Case Study of Intermolecular H-Bonds in Crystalline Peroxosolvates. Molecules, 2022, 27, 4082.	1.7	9
47	Crystal structure of 2,3,5,6-tetrakis(pyridin-2-yl)pyrazine hydrogen peroxide 4.75-solvate. Acta Crystallographica Section E: Crystallographic Communications, 2017, 73, 1793-1796.	0.2	8
48	<scp>DL</scp>-Piperidinium-2-carboxylate bis(hydrogen peroxide): unusual hydrogen-bonded peroxide chains. Acta Crystallographica Section E: Crystallographic Communications, 2020, 76, 1331-1335.	0.2	8
49	Synthesis, crystal structure and characterization of alkali metal hydroxoantimonates. Inorganica Chimica Acta, 2011, 378, 24-29.	1.2	7
50	First example of peroxosolvate of iodine-containing organic molecule. Mendeleev Communications, 2021, 31, 352-355.	0.6	7
51	Hydroperoxo double hydrogen bonding: stabilization of hydroperoxo complexes exemplified by triphenylsilicon and triphenylgermanium hydroperoxides. CrystEngComm, 2020, 22, 1922-1928.	1.3	6
52	Crystal structure of (Z)-N-benzylidene-1-phenylmethanamine oxide hydrogen peroxide monosolvate. Acta Crystallographica Section E: Crystallographic Communications, 2017, 73, 1666-1669.	0.2	5
53	Synthesis and crystal structure of triphenyltin and lead complexes with organic peroxides. Mendeleev Communications, 2022, 32, 57-59.	0.6	5
54	Triphenyllead Hydroperoxide: A 1D Coordination Peroxo Polymer, Single-Crystal-to-Single-Crystal Disproportionation to a Superoxo/Hydroxo Complex, and Application in Catalysis. Inorganic Chemistry, 2022, 61, 8193-8205.	1.9	5

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55	Green synthesis of zinc sulfide-reduced graphene oxide composite and its application in sodium-ion batteries. Journal of Alloys and Compounds, 2022, 910, 164769.	2.8	4
56	Novel peroxosolvates of tetraalkylammonium halides: the first case of layers containing hydrogen-bonded peroxide molecules. CrystEngComm, 2021, 24, 38-42.	1.3	3
57	The Crystal Structure of Guanidinium Sulphate Hemiperoxosolvate. Propellants, Explosives, Pyrotechnics, 2018, 43, 859-861.	1.0	2
58	LC-MS analysis of nitroguanidine compounds by catalytic reduction using palladium modified graphitic carbon nitride catalyst. Mikrochimica Acta, 2021, 188, 152.	2.5	2
59	The first molecular structure containing four hydroperoxo groups: piperazine-2,3,5,6-tetrayl tetrahydroperoxide pyrazine disolvate dihydrate. Acta Crystallographica Section E: Structure Reports Online, 2006, 62, o2265-o2267.	0.2	1
60	Hydrogen Peroxide Insular Dodecameric and Pentameric Clusters in Peroxosolvate Structures. Angewandte Chemie, 2017, 129, 15443-15447.	1.6	1
61	First example of peroxosolvate of iodine-containing organic molecule. Mendeleev Communications, 2021, 31, 352-355.	0.6	1
62	Titelbild: Hydrogen Peroxide Insular Dodecameric and Pentameric Clusters in Peroxosolvate Structures (Angew. Chem. 48/2017). Angewandte Chemie, 2017, 129, 15365-15365.	1.6	0
63	Phase Change Materials: Doubly Coated, Organicâ€“Inorganic Paraffin Phase Change Materials: Zinc Oxide Coating of Hermetically Encapsulated Paraffins (Adv. Mater. Interfaces 12/2019). Advanced Materials Interfaces, 2019, 6, 1970077.	1.9	0