Alexander G Medvedev

List of Publications by Year
in descending order

55	1,780	331538 21	265120 42
papers	citations	h-index	g-index

61	61	61	2529
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	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
4	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
5	Zinc Dioxide Nanoparticulates: A Hydrogen Peroxide Source at Moderate pH. Environmental Science & Technology, 2013, 47, 8769-8774.	4.6	70
6	Peroxosolvates: Formation Criteria, H₂O₂ Hydrogen Bonding, and Isomorphism with the Corresponding Hydrates. Crystal Growth and Design, 2017, 17, 214-220.	1.4	54
7	Crystal structures of natural amino acid perhydrates. CrystEngComm, 2011, 13, 2399.	1.3	51
8	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
9	Biocomposite Based on Reduced Graphene Oxide Film Modified with Phenothiazone and Flavin Adenine Dinucleotide-Dependent Glucose Dehydrogenase for Glucose Sensing and Biofuel Cell Applications. Analytical Chemistry, 2015, 87, 9567-9571.	3.2	44
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 Oxideâ€Supported Î²â€Tin Telluride Composite for Sodiumâ€•and Lithiumâ€Ion Battery Anodes. Energy Technology, 2018, 6, 127-133.	1.8	35
12	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
13	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
14	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
15	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
16	Preparation of pure hydrogen peroxide and anhydrous peroxide solutions from crystalline serine perhydrate. Tetrahedron, 2010, 66, 5130-5133.	1.0	29
17	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
18	Graphene oxide supported sodium stannate lithium ion battery anodes by the peroxide route: low temperature and no waste processing. Journal of Materials Chemistry A, 2015, 3, 20681-20689.	5.2	28

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19	Peroxide Coordination of Tellurium in Aqueous Solutions. Chemistry - A European Journal, 2016, 22, 2980-2986.	1.7	26
20	Crystalline Peroxosolvates: Nature of the Coformer, Hydrogen-Bonded Networks and Clusters, Intermolecular Interactions. Molecules, 2021, 26, 26.	1.7	23
21	Hydrogen Peroxide Insular Dodecameric and Pentameric Clusters in Peroxosolvate Structures. Angewandte Chemie - International Edition, 2017, 56, 15241-15245.	7.2	22
22	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
23	The applicability of the dimeric heterosynthon concept to molecules with equivalent binding sites. A DFT study of crystalline ureaâ€“H₂O₂. RSC Advances, 2015, 5, 29601-29608.	1.7	18
24	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
25	Doubly Coated, Organicâ€“Inorganic Paraffin Phase Change Materials: Zinc Oxide Coating of Hermetically Encapsulated Paraffins. Advanced Materials Interfaces, 2019, 6, 1900368.	1.9	18
26	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
27	Cyclic dipeptide peroxosolvates: first direct evidence for hydrogen bonding between hydrogen peroxide and a peptide backbone. CrystEngComm, 2019, 21, 4961-4968.	1.3	16
28	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
29	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
30	Stabilization of hydrogen peroxide by hydrogen bonding in the crystal structure of 2-aminobenzimidazole perhydrate. CrystEngComm, 2020, 22, 2866-2872.	1.3	14
31	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
32	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
33	Comparison of Proton Acceptor and Proton Donor Properties of H2O and H2O2 in Organic Crystals of Drug-like Compounds: Peroxosolvates vs. Crystallohydrates. Molecules, 2022, 27, 717.	1.7	11
34	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
35	Identification of Barium Hydroxo-Hydroperoxostannate Precursor for Low-Temperature Formation of Perovskite Barium Stannate. Inorganic Chemistry, 2020, 59, 18358-18365.	1.9	10
36	Crystal structures of pyridinemonocarboxylic acid peroxosolvates. Russian Chemical Bulletin, 2013, 62, 1871-1876.	0.4	9

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37	Renewable zinc dioxide nanoparticles and coatings. Materials Letters, 2014, 116, 282-285.	1.3	9
38	Crystalline Ammonium Peroxogermanate as a Waste-Free, Fully Recyclable Versatile Precursor for Germanium Compounds. Inorganic Chemistry, 2019, 58, 1905-1911.	1.9	9
39	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
40	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
41	Hydroperoxo double hydrogen bonding: stabilization of hydroperoxo complexes exemplified by triphenylsilicon and triphenylgermanium hydroperoxides. CrystEngComm, 2020, 22, 1922-1928.	1.3	6
42	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
43	Synthesis and crystal structure of triphenyltin and lead complexes with organic peroxides. Mendeleev Communications, 2022, 32, 57-59.	0.6	5
44	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
45	Study of tin dioxideâ€“sodium stannate composite obtained by decomposition of peroxostannate as a potential anode material for lithium-ion batteries. Russian Journal of Inorganic Chemistry, 2016, 61, 1430-1435.	0.3	4
46	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
47	Novel peroxosolvates of tetraalkylammonium halides: the first case of layers containing hydrogen-bonded peroxide molecules. CrystEngComm, 2021, 24, 38-42.	1.3	3
48	Crystal structure of ammonium succinate peroxosolvate. Journal of Structural Chemistry, 2014, 55, 1390-1394.	0.3	2
49	Morphology and electrochemical properties of a composite produced by a peroxide method on the basis of tin dioxide and carbon black. Russian Journal of Inorganic Chemistry, 2016, 61, 1578-1583.	0.3	2
50	Development of combined granulation and encapsulation process in production of sodium percarbonate. Theoretical Foundations of Chemical Engineering, 2017, 51, 515-522.	0.2	2
51	The Crystal Structure of Guanidinium Sulphate Hemiperoxosolvate. Propellants, Explosives, Pyrotechnics, 2018, 43, 859-861.	1.0	2
52	Hydrogen Peroxide Insular Dodecameric and Pentameric Clusters in Peroxosolvate Structures. Angewandte Chemie, 2017, 129, 15443-15447.	1.6	1
53	X-ray diffraction and DSC study of 4-n-butyloxyphenyl 4â€²-hydroxybenzoate. Molecular Crystals and Liquid Crystals, 2017, 652, 76-83.	0.4	1
54	Titelbild: Hydrogen Peroxide Insular Dodecameric and Pentameric Clusters in Peroxosolvate Structures (Angew. Chem. 48/2017). Angewandte Chemie, 2017, 129, 15365-15365.	1.6	0

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55	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