

Stanislav I Sadovnikov

List of Publications by Year in descending order

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1,645
citations

279487

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36
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98
all docs

98
docs citations

98
times ranked

989
citing authors

#	ARTICLE	IF	CITATIONS
1	Deep learning potential for superionic phase of Ag ₂ S. Computational Materials Science, 2022, 202, 110963.	1.4	12
2	Polymorphic Phase Transformations in Nanocrystalline Ag ₂ S Silver Sulfide in a Wide Temperature Interval and Influence of Nanostructured Ag ₂ S on the Interface Formation in Ag ₂ S/ZnS Heteronanostructure. Nanomaterials, 2022, 12, 1668.	1.9	5
3	Effect of elastic properties of nanostructured Ag ₂ S and ZnS sulfides on interface formation. Materials Science in Semiconductor Processing, 2022, 148, 106766.	1.9	2
4	Elastic properties of superionic cubic silver sulfide $\hat{\Gamma}^2$ -Ag ₂ S. Physical Chemistry Chemical Physics, 2021, 23, 2914-2922.	1.3	9
5	Nonstoichiometry, structure and properties of nanocrystalline oxides, carbides and sulfides. Russian Chemical Reviews, 2021, 90, 601-626.	2.5	8
6	Interface in Ag ₂ S/ZnS Nanoheterostructures. JETP Letters, 2021, 113, 706-712.	0.4	3
7	Phase Transition in Ag ₂ S and the Relative Position of Atomic Planes of the $\hat{\Gamma}^{\pm}$ -Ag ₂ S and $\hat{\Gamma}^2$ -Ag ₂ S Phases. JETP Letters, 2021, 114, 156-162.	0.4	0
8	Elastic Properties of Ag ₂ S and ZnS Nanocrystalline Cubic Sulfides. Physics of the Solid State, 2021, 63, 1524-1531.	0.2	2
9	ZnS Nanopowders and ZnS/Ag ₂ S Heteronanostructures: Synthesis and Properties. Russian Journal of Inorganic Chemistry, 2020, 65, 1312-1319.	0.3	4
10	Synthesis of Silver Sulfide Colloidal Solutions in Heavy Water D ₂ O. Russian Journal of Inorganic Chemistry, 2020, 65, 1630-1635.	0.3	3
11	Optical Properties of Zinc Sulfide Nanopowders and ZnS/Ag ₂ S Heteronanostructures. Physics of the Solid State, 2020, 62, 2004-2011.	0.2	7
12	Synthesis of Ag ₂ S colloidal solutions in D ₂ O heavy water. RSC Advances, 2020, 10, 40171-40179.	1.7	6
13	Velocities of Longitudinal and Transverse Elastic Vibrations in Superionic Silver Sulfide. JETP Letters, 2020, 112, 193-198.	0.4	7
14	Synthesis and optical properties of nanostructured ZnS and heteronanostructures based on zinc and silver sulfides. Journal of Alloys and Compounds, 2020, 831, 154846.	2.8	17
15	Molecular dynamics simulations of zinc sulfide deposition on silver sulfide from aqueous solution. Computational Materials Science, 2020, 184, 109821.	1.4	6
16	Effect of Exposure to Air on the Phase Composition and Particle Size of Nanocrystalline Lead Sulfide. Russian Journal of Inorganic Chemistry, 2020, 65, 812-819.	0.3	1
17	M5C4 Phases – New Family of Carbide Superstructures. Journal of Experimental and Theoretical Physics, 2020, 131, 572-581.	0.2	3
18	The Thermal Expansion of Ag _x Pb _{1-x} S Limited Semiconductor Solid Solutions. Physics of the Solid State, 2019, 61, 982-986.	0.2	0

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19	Synthesis, properties and applications of semiconductor nanostructured zinc sulfide. Russian Chemical Reviews, 2019, 88, 571-593.	2.5	35
20	Liquid-Phase Synthesis of Silver Sulfide Nanoparticles in Supersaturated Aqueous Solutions. Russian Journal of Inorganic Chemistry, 2019, 64, 1309-1316.	0.3	12
21	Precipitation of Nanocrystalline Silver Sulfide from Aqueous Solutions Containing a Stabilizer. Russian Journal of Applied Chemistry, 2019, 92, 893-901.	0.1	3
22	Argentite-Acanthite Transformation in Silver Sulfide as a Disorder-Order Transition. JETP Letters, 2019, 109, 584-588.	0.4	8
23	Orientation Relationships upon the Structural Transformation of Monoclinic and Cubic Phases in Silver Sulfide. Semiconductors, 2019, 53, 941-946.	0.2	4
24	Preparation and Morphology of CdZnS Thin Films. International Journal of Nanoscience, 2019, 18, 1940060.	0.4	3
25	Thermal Expansion of Nanostructured Solid Solutions of Lead and Silver Sulfides. International Journal of Nanoscience, 2019, 18, 1940061.	0.4	1
26	Thermal, elastic and optical properties of nanostructured $Pb_{1-x}Ag_xS$ solid solutions. Mendeleev Communications, 2019, 29, 398-399.	0.6	1
27	Thermal stability and recrystallization of semiconductor nanostructured sulfides and sulfide solid solutions. Journal of Alloys and Compounds, 2019, 788, 586-599.	2.8	14
28	Direct TEM observation of the α -acanthite \leftrightarrow Ag ₂ S \leftrightarrow argentite \leftrightarrow Ag ₂ S phase transition in a silver sulfide nanoparticle. Nanoscale Advances, 2019, 1, 1581-1588.	2.2	25
29	Argentite \leftrightarrow Acanthite Transition in Silver Sulfide as a Two-Sublattice Ordering. Journal of Experimental and Theoretical Physics, 2019, 129, 1045-1054.	0.2	3
30	Effects of Doping of Lead Sulfide with Silver on the Lattice and Optical Properties of $Pb_{1-x}Ag_xS$ Solid Solutions. Semiconductors, 2019, 53, 1665-1671.	0.2	1
31	Atomic Displacements in the $\alpha \leftrightarrow \beta$ Phase Transition in Ag ₂ S and in Ag ₂ S/Ag Heterostructure. Journal of Experimental and Theoretical Physics, 2019, 129, 1005-1016.	0.2	7
32	Lifetime of Positrons in Nanostructured Nonstoichiometric Silver Sulfide Ag _{2-x} S. JETP Letters, 2018, 107, 4-9.	0.4	5
33	Effect of small size of particles on thermal expansion and heat capacity of Ag ₂ S silver sulfide. Thermochimica Acta, 2018, 660, 1-10.	1.2	17
34	Thermal expansion, heat capacity and phase transformations in nanocrystalline and coarse-crystalline silver sulfide at 290 \leq T \leq 970 K. Journal of Thermal Analysis and Calorimetry, 2018, 131, 1155-1164.	2.0	24
35	Size Characterization of Nanostructured Materials. Springer Series in Materials Science, 2018, , 1-29.	0.4	0
36	Bulk Modulus of Coarse-Crystalline and Nanocrystalline Silver Sulfides. Physics of the Solid State, 2018, 60, 2546-2550.	0.2	1

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37	Determination of the Region of Thermal Stability of the Size and Phase Composition of Silver-Sulfide Semiconductor Nanoparticles. <i>Semiconductors</i> , 2018, 52, 1763-1769.	0.2	1
38	Thermal stability of nanoparticle size and phase composition of nanostructured Ag ₂ S silver sulfide. <i>Journal of Alloys and Compounds</i> , 2018, 766, 140-148.	2.8	29
39	Nanostructured silver sulfide: synthesis of various forms and their application. <i>Russian Chemical Reviews</i> , 2018, 87, 303-327.	2.5	47
40	Micro-Raman Spectroscopy of Nanostructured Silver Sulfide. <i>Doklady Physical Chemistry</i> , 2018, 480, 81-84.	0.2	29
41	Effect of Particle Size and Specific Surface Area on the Determination of the Density of Nanocrystalline Silver Sulfide Ag ₂ S Powders. <i>Physics of the Solid State</i> , 2018, 60, 877-881.	0.2	2
42	The Effect of Temperature on the Particle Sizes and the Recrystallization of Silver Sulfide Nanopowders. <i>Physics of the Solid State</i> , 2018, 60, 1308-1315.	0.2	8
43	Nanostructured Lead, Cadmium, and Silver Sulfides. <i>Springer Series in Materials Science</i> , 2018, , .	0.4	35
44	Nanostructured Lead Sulfide PbS. <i>Springer Series in Materials Science</i> , 2018, , 31-126.	0.4	1
45	Nanostructured Silver Sulfide Ag ₂ S. <i>Springer Series in Materials Science</i> , 2018, , 189-312.	0.4	3
46	Structure and properties of nanoscale Ag ₂ S/Ag heterostructure. <i>Materials Letters</i> , 2017, 188, 351-354.	1.3	16
47	Synthesis and characterization of novel stellate sea-urchin-like silver particles with extremely low density and superhydrophobicity. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20289-20297.	5.2	6
48	Enhanced photocatalytic hydrogen evolution from aqueous solutions on Ag ₂ S/Ag heteronanostructure. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 25258-25266.	3.8	44
49	Recent progress in nanostructured silver sulfide: from synthesis and nonstoichiometry to properties. <i>Journal of Materials Chemistry A</i> , 2017, 5, 17676-17704.	5.2	140
50	Thermal expansion and the heat capacity of nanocrystalline and coarse-crystalline silver sulfide Ag ₂ S. <i>Physics of the Solid State</i> , 2017, 59, 1887-1894.	0.2	13
51	Photocatalytic hydrogen evolution from aqueous solutions on nanostructured Ag ₂ S and Ag ₂ S/Ag. <i>Catalysis Communications</i> , 2017, 100, 178-182.	1.6	37
52	Ag ₂ S/Ag heteronanostructure. <i>JETP Letters</i> , 2017, 106, 587-592.	0.4	5
53	Stellate superhydrophobic silver particles. <i>JETP Letters</i> , 2017, 106, 454-459.	0.4	2
54	Short-range order and correlations of S atoms in thin-layer PbS structures. <i>Mendeleev Communications</i> , 2017, 27, 589-591.	0.6	2

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55	Acanthiteâ€“argentite transformation in nanocrystalline silver sulfide and the Ag ₂ S/Ag nanoheterostructure. Semiconductors, 2016, 50, 682-687.	0.2	15
56	Polymorphic transformation in nanocrystalline silver sulfide. Physics of the Solid State, 2016, 58, 30-36.	0.2	23
57	Facile synthesis, structure, and properties of Ag ₂ S/Ag heteronanostructure. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	24
58	Universal Approach to the Synthesis of Silver Sulfide in the Forms of Nanopowders, Quantum Dots, Coreâ€“Shell Nanoparticles, and Heteronanostructures. European Journal of Inorganic Chemistry, 2016, 2016, 4944-4957.	1.0	36
59	Nanostructured lead sulfide: synthesis, structure and properties. Russian Chemical Reviews, 2016, 85, 731-758.	2.5	49
60	Ag ₂ S silver sulfide nanoparticles and colloidal solutions: Synthesis and properties. Nano Structures Nano Objects, 2016, 7, 81-91.	1.9	68
61	Silver sulfide nanoparticles with a carbon-containing shell. Inorganic Materials, 2016, 52, 441-446.	0.2	12
62	High-temperature X-ray diffraction and thermal expansion of nanocrystalline and coarse-crystalline acanthite $\text{I} \pm \text{Ag}_{2\langle \text{sub} \rangle \text{S}}$ and argentite $\text{I}^2 \text{Ag}_{2\langle \text{sub} \rangle \text{S}}$. Physical Chemistry Chemical Physics, 2016, 18, 4617-4626.	1.3	59
63	Thermal expansion of nanocrystalline and coarse-crystalline silver sulfide Ag ₂ S. Physics of the Solid State, 2016, 58, 251-257.	0.2	20
64	Hydrochemical precipitation of nanocrystalline lead sulfide powders. Inorganic Materials, 2015, 51, 1219-1224.	0.2	3
65	Structure and stoichiometry of nanocrystalline silver sulfide. Doklady Physical Chemistry, 2015, 464, 238-243.	0.2	7
66	Facile synthesis of Ag ₂ S nanoparticles functionalized by carbon-containing citrate shell. Chemical Physics Letters, 2015, 642, 17-21.	1.2	35
67	Synthesis of nanocrystalline silver sulfide. Inorganic Materials, 2015, 51, 759-766.	0.2	31
68	Artificial silver sulfide Ag ₂ S: Crystal structure and particle size in deposited powders. Superlattices and Microstructures, 2015, 83, 35-47.	1.4	84
69	Nonstoichiometry of nanocrystalline monoclinic silver sulfide. Physical Chemistry Chemical Physics, 2015, 17, 12466-12471.	1.3	84
70	An in situ high-temperature scanning electron microscopy study of acanthiteâ€“argentite phase transformation in nanocrystalline silver sulfide powder. Physical Chemistry Chemical Physics, 2015, 17, 20495-20501.	1.3	50
71	Thermal expansion of nanostructured PbS films and anharmonicity of atomic vibrations. Physics of the Solid State, 2014, 56, 2353-2358.	0.2	15
72	Chemical deposition of nanocrystalline lead sulfide powders with controllable particle size. Journal of Alloys and Compounds, 2014, 586, 105-112.	2.8	54

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73	Effect of particle size on the thermal expansion of nanostructured lead sulfide films. <i>Journal of Alloys and Compounds</i> , 2014, 610, 196-202.	2.8	24
74	Synthesis of a stable colloidal solution of PbS nanoparticles. <i>Inorganic Materials</i> , 2014, 50, 969-975.	0.2	9
75	Preparation of nanocrystalline lead sulfide powder with controlled particles size. <i>Russian Journal of General Chemistry</i> , 2014, 84, 173-180.	0.3	7
76	Structure and properties of PbS films. <i>Journal of Alloys and Compounds</i> , 2013, 573, 65-75.	2.8	44
77	Thermal expansion of a lead sulfide nanofilm. <i>Thin Solid Films</i> , 2013, 548, 230-234.	0.8	22
78	Microstructure and crystal structure of nanocrystalline powders and films of PbS. <i>Physics of the Solid State</i> , 2012, 54, 1554-1561.	0.2	7
79	Microstructure of nanocrystalline PbS powders and films. <i>Inorganic Materials</i> , 2012, 48, 21-27.	0.2	24
80	Considering the polynuclear complexes in the ionic equilibria of the Pb ²⁺ -H ₂ O system. <i>Russian Journal of General Chemistry</i> , 2012, 82, 626-634.	0.3	3
81	Stability and recrystallization of PbS nanoparticles. <i>Inorganic Materials</i> , 2011, 47, 837-843.	0.2	17
82	One-pot synthesis of lead sulfide nanoparticles. <i>Russian Journal of General Chemistry</i> , 2011, 81, 2062-2066.	0.3	12
83	Oxidation of nanocrystalline lead sulfide in air. <i>Russian Journal of Inorganic Chemistry</i> , 2011, 56, 1864-1869.	0.3	13
84	Optical properties of nanostructured lead sulfide films with a D03 cubic structure. <i>Semiconductors</i> , 2011, 45, 1559-1570.	0.2	16
85	The structure and optical properties of nanocrystalline lead sulfide films. <i>Semiconductors</i> , 2010, 44, 1349-1356.	0.2	25
86	Correlation of sulfur atoms in nonmetal planes of lead sulfide films with the D03 structure. <i>Physics of the Solid State</i> , 2010, 52, 2458-2466.	0.2	2
87	Nonstoichiometric distribution of sulfur atoms in lead sulfide structure. <i>Doklady Physical Chemistry</i> , 2009, 428, 167-171.	0.2	13
88	New crystalline phase in thin lead sulfide films. <i>JETP Letters</i> , 2009, 89, 238-243.	0.4	25
89	Thermal stability of lead sulfide nanocrystalline films. <i>Glass Physics and Chemistry</i> , 2009, 35, 60-66.	0.2	6
90	Crystal structure of nanostructured PbS films at temperatures of 293–423 K. <i>Physics of the Solid State</i> , 2009, 51, 2375-2383.	0.2	23

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91	CRYSTAL STRUCTURE OF LEAD SULFIDE NANOPARTICLES IN THIN FILMS. , 2009, , .		0
92	Simulation of pair and three-particle correlations in a binary solid solution with a hexagonal lattice. Physics of the Solid State, 2008, 50, 1131-1136.	0.2	0
93	Short-range order and pair correlations in a binary solid solution with a square lattice. Physics of the Solid State, 2007, 49, 1543-1547.	0.2	1
94	Modeling of short-range order in a defect square lattice. Bulletin of the Russian Academy of Sciences: Physics, 2007, 71, 1174-1178.	0.1	2
95	Synthesis and Characterization of (Ag ₂ S) _x (ZnS) Heteronanostructures. IOP Conference Series: Materials Science and Engineering, 0, 1008, 012019.	0.3	0