

# Stanislav I Sadovnikov

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3369111/publications.pdf>

Version: 2024-02-01

95  
papers

1,645  
citations

279487

23  
h-index

344852

36  
g-index

98  
all docs

98  
docs citations

98  
times ranked

989  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Artificial silver sulfide Ag <sub>2</sub> S: Crystal structure and particle size in deposited powders. <i>Superlattices and Microstructures</i> , 2015, 83, 35-47.	1.4	84
3	Nonstoichiometry of nanocrystalline monoclinic silver sulfide. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 12466-12471.	1.3	84
4	Ag <sub>2</sub> S silver sulfide nanoparticles and colloidal solutions: Synthesis and properties. <i>Nano Structures Nano Objects</i> , 2016, 7, 81-91.	1.9	68
5	High-temperature X-ray diffraction and thermal expansion of nanocrystalline and coarse-crystalline acanthite $\text{Ag}_{2-x}\text{S}$ and argentite $\text{Ag}_{2-x}\text{S}$ . <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 4617-4626.	1.3	59
6	Chemical deposition of nanocrystalline lead sulfide powders with controllable particle size. <i>Journal of Alloys and Compounds</i> , 2014, 586, 105-112.	2.8	54
7	An in situ high-temperature scanning electron microscopy study of acanthite $\rightarrow$ argentite phase transformation in nanocrystalline silver sulfide powder. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 20495-20501.	1.3	50
8	Nanostructured lead sulfide: synthesis, structure and properties. <i>Russian Chemical Reviews</i> , 2016, 85, 731-758.	2.5	49
9	Nanostructured silver sulfide: synthesis of various forms and their application. <i>Russian Chemical Reviews</i> , 2018, 87, 303-327.	2.5	47
10	Structure and properties of PbS films. <i>Journal of Alloys and Compounds</i> , 2013, 573, 65-75.	2.8	44
11	Enhanced photocatalytic hydrogen evolution from aqueous solutions on Ag <sub>2</sub> S/Ag heteronanostructure. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 25258-25266.	3.8	44
12	Photocatalytic hydrogen evolution from aqueous solutions on nanostructured Ag <sub>2</sub> S and Ag <sub>2</sub> S/Ag. <i>Catalysis Communications</i> , 2017, 100, 178-182.	1.6	37
13	Universal Approach to the Synthesis of Silver Sulfide in the Forms of Nanopowders, Quantum Dots, Core $\rightarrow$ Shell Nanoparticles, and Heteronanostructures. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 4944-4957.	1.0	36
14	Facile synthesis of Ag <sub>2</sub> S nanoparticles functionalized by carbon-containing citrate shell. <i>Chemical Physics Letters</i> , 2015, 642, 17-21.	1.2	35
15	Synthesis, properties and applications of semiconductor nanostructured zinc sulfide. <i>Russian Chemical Reviews</i> , 2019, 88, 571-593.	2.5	35
16	Nanostructured Lead, Cadmium, and Silver Sulfides. <i>Springer Series in Materials Science</i> , 2018, , .	0.4	35
17	Synthesis of nanocrystalline silver sulfide. <i>Inorganic Materials</i> , 2015, 51, 759-766.	0.2	31
18	Thermal stability of nanoparticle size and phase composition of nanostructured Ag <sub>2</sub> S silver sulfide. <i>Journal of Alloys and Compounds</i> , 2018, 766, 140-148.	2.8	29

#	ARTICLE	IF	CITATIONS
19	Micro-Raman Spectroscopy of Nanostructured Silver Sulfide. Doklady Physical Chemistry, 2018, 480, 81-84.	0.2	29
20	New crystalline phase in thin lead sulfide films. JETP Letters, 2009, 89, 238-243.	0.4	25
21	The structure and optical properties of nanocrystalline lead sulfide films. Semiconductors, 2010, 44, 1349-1356.	0.2	25
22	Direct TEM observation of the $\alpha$ -cannthite $\text{Ag}_2\text{S}$ $\leftrightarrow$ argentite $\text{Ag}_2\text{S}$ phase transition in a silver sulfide nanoparticle. Nanoscale Advances, 2019, 1, 1581-1588.	2.2	25
23	Microstructure of nanocrystalline PbS powders and films. Inorganic Materials, 2012, 48, 21-27.	0.2	24
24	Effect of particle size on the thermal expansion of nanostructured lead sulfide films. Journal of Alloys and Compounds, 2014, 610, 196-202.	2.8	24
25	Facile synthesis, structure, and properties of $\text{Ag}_2\text{S}/\text{Ag}$ heteronanostructure. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	24
26	Thermal expansion, heat capacity and phase transformations in nanocrystalline and coarse-crystalline silver sulfide at 290–970 K. Journal of Thermal Analysis and Calorimetry, 2018, 131, 1155-1164.	2.0	24
27	Crystal structure of nanostructured PbS films at temperatures of 293–423 K. Physics of the Solid State, 2009, 51, 2375-2383.	0.2	23
28	Polymorphic transformation in nanocrystalline silver sulfide. Physics of the Solid State, 2016, 58, 30-36.	0.2	23
29	Thermal expansion of a lead sulfide nanofilm. Thin Solid Films, 2013, 548, 230-234.	0.8	22
30	Thermal expansion of nanocrystalline and coarse-crystalline silver sulfide $\text{Ag}_2\text{S}$ . Physics of the Solid State, 2016, 58, 251-257.	0.2	20
31	Stability and recrystallization of PbS nanoparticles. Inorganic Materials, 2011, 47, 837-843.	0.2	17
32	Effect of small size of particles on thermal expansion and heat capacity of $\text{Ag}_2\text{S}$ silver sulfide. Thermochimica Acta, 2018, 660, 1-10.	1.2	17
33	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
34	Optical properties of nanostructured lead sulfide films with a D03 cubic structure. Semiconductors, 2011, 45, 1559-1570.	0.2	16
35	Structure and properties of nanoscale $\text{Ag}_2\text{S}/\text{Ag}$ heterostructure. Materials Letters, 2017, 188, 351-354.	1.3	16
36	Thermal expansion of nanostructured PbS films and anharmonicity of atomic vibrations. Physics of the Solid State, 2014, 56, 2353-2358.	0.2	15

#	ARTICLE	IF	CITATIONS
37	Acanthite→argentite transformation in nanocrystalline silver sulfide and the Ag <sub>2</sub> S/Ag nanoheterostructure. Semiconductors, 2016, 50, 682-687.	0.2	15
38	Thermal stability and recrystallization of semiconductor nanostructured sulfides and sulfide solid solutions. Journal of Alloys and Compounds, 2019, 788, 586-599.	2.8	14
39	Nonstoichiometric distribution of sulfur atoms in lead sulfide structure. Doklady Physical Chemistry, 2009, 428, 167-171.	0.2	13
40	Oxidation of nanocrystalline lead sulfide in air. Russian Journal of Inorganic Chemistry, 2011, 56, 1864-1869.	0.3	13
41	Thermal expansion and the heat capacity of nanocrystalline and coarse-crystalline silver sulfide Ag <sub>2</sub> S. Physics of the Solid State, 2017, 59, 1887-1894.	0.2	13
42	One-pot synthesis of lead sulfide nanoparticles. Russian Journal of General Chemistry, 2011, 81, 2062-2066.	0.3	12
43	Silver sulfide nanoparticles with a carbon-containing shell. Inorganic Materials, 2016, 52, 441-446.	0.2	12
44	Liquid-Phase Synthesis of Silver Sulfide Nanoparticles in Supersaturated Aqueous Solutions. Russian Journal of Inorganic Chemistry, 2019, 64, 1309-1316.	0.3	12
45	Deep learning potential for superionic phase of Ag <sub>2</sub> S. Computational Materials Science, 2022, 202, 110963.	1.4	12
46	Synthesis of a stable colloidal solution of PbS nanoparticles. Inorganic Materials, 2014, 50, 969-975.	0.2	9
47	Elastic properties of superionic cubic silver sulfide $\hat{\Gamma}^2$ -Ag <sub>2</sub> S. Physical Chemistry Chemical Physics, 2021, 23, 2914-2922.	1.3	9
48	The Effect of Temperature on the Particle Sizes and the Recrystallization of Silver Sulfide Nanopowders. Physics of the Solid State, 2018, 60, 1308-1315.	0.2	8
49	Argentite-Acanthite Transformation in Silver Sulfide as a Disorder-Order Transition. JETP Letters, 2019, 109, 584-588.	0.4	8
50	Nonstoichiometry, structure and properties of nanocrystalline oxides, carbides and sulfides. Russian Chemical Reviews, 2021, 90, 601-626.	2.5	8
51	Microstructure and crystal structure of nanocrystalline powders and films of PbS. Physics of the Solid State, 2012, 54, 1554-1561.	0.2	7
52	Preparation of nanocrystalline lead sulfide powder with controlled particles size. Russian Journal of General Chemistry, 2014, 84, 173-180.	0.3	7
53	Structure and stoichiometry of nanocrystalline silver sulfide. Doklady Physical Chemistry, 2015, 464, 238-243.	0.2	7
54	Optical Properties of Zinc Sulfide Nanopowders and ZnS/Ag <sub>2</sub> S Heteronanostructures. Physics of the Solid State, 2020, 62, 2004-2011.	0.2	7

#	ARTICLE	IF	CITATIONS
55	Velocities of Longitudinal and Transverse Elastic Vibrations in Superionic Silver Sulfide. JETP Letters, 2020, 112, 193-198.	0.4	7
56	Atomic Displacements in the $\hat{\Gamma}$ - $\hat{\Gamma}'_2$ Phase Transition in Ag <sub>2</sub> S and in Ag <sub>2</sub> S/Ag Heterostructure. Journal of Experimental and Theoretical Physics, 2019, 129, 1005-1016.	0.2	7
57	Thermal stability of lead sulfide nanocrystalline films. Glass Physics and Chemistry, 2009, 35, 60-66.	0.2	6
58	Synthesis and characterization of novel stellate sea-urchin-like silver particles with extremely low density and superhydrophobicity. Journal of Materials Chemistry A, 2017, 5, 20289-20297.	5.2	6
59	Synthesis of Ag <sub>2</sub> S colloidal solutions in D <sub>2</sub> O heavy water. RSC Advances, 2020, 10, 40171-40179.	1.7	6
60	Molecular dynamics simulations of zinc sulfide deposition on silver sulfide from aqueous solution. Computational Materials Science, 2020, 184, 109821.	1.4	6
61	Ag <sub>2</sub> S/Ag heterostructure. JETP Letters, 2017, 106, 587-592.	0.4	5
62	Lifetime of Positrons in Nanostructured Nonstoichiometric Silver Sulfide Ag <sub>2</sub> $\hat{\Gamma}$ 'S. JETP Letters, 2018, 107, 4-9.	0.4	5
63	Polymorphic Phase Transformations in Nanocrystalline Ag <sub>2</sub> S Silver Sulfide in a Wide Temperature Interval and Influence of Nanostructured Ag <sub>2</sub> S on the Interface Formation in Ag <sub>2</sub> S/ZnS Heterostructure. Nanomaterials, 2022, 12, 1668.	1.9	5
64	Orientation Relationships upon the Structural Transformation of Monoclinic and Cubic Phases in Silver Sulfide. Semiconductors, 2019, 53, 941-946.	0.2	4
65	ZnS Nanopowders and ZnS/Ag <sub>2</sub> S Heterostructures: Synthesis and Properties. Russian Journal of Inorganic Chemistry, 2020, 65, 1312-1319.	0.3	4
66	Considering the polynuclear complexes in the ionic equilibria of the Pb <sup>2+</sup> -H <sub>2</sub> O system. Russian Journal of General Chemistry, 2012, 82, 626-634.	0.3	3
67	Hydrochemical precipitation of nanocrystalline lead sulfide powders. Inorganic Materials, 2015, 51, 1219-1224.	0.2	3
68	Precipitation of Nanocrystalline Silver Sulfide from Aqueous Solutions Containing a Stabilizer. Russian Journal of Applied Chemistry, 2019, 92, 893-901.	0.1	3
69	Preparation and Morphology of CdZnS Thin Films. International Journal of Nanoscience, 2019, 18, 1940060.	0.4	3
70	Argentite $\hat{\Gamma}$ -Acanthite Transition in Silver Sulfide as a Two-Sublattice Ordering. Journal of Experimental and Theoretical Physics, 2019, 129, 1045-1054.	0.2	3
71	Synthesis of Silver Sulfide Colloidal Solutions in Heavy Water D <sub>2</sub> O. Russian Journal of Inorganic Chemistry, 2020, 65, 1630-1635.	0.3	3
72	Interface in Ag <sub>2</sub> S/ZnS Nanoheterostructures. JETP Letters, 2021, 113, 706-712.	0.4	3

#	ARTICLE	IF	CITATIONS
73	Nanostructured Silver Sulfide Ag <sub>2</sub> S. Springer Series in Materials Science, 2018, , 189-312.	0.4	3
74	M5C4 Phases – New Family of Carbide Superstructures. Journal of Experimental and Theoretical Physics, 2020, 131, 572-581.	0.2	3
75	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
76	Correlation of sulfur atoms in nonmetal planes of lead sulfide films with the D03 structure. Physics of the Solid State, 2010, 52, 2458-2466.	0.2	2
77	Stellate superhydrophobic silver particles. JETP Letters, 2017, 106, 454-459.	0.4	2
78	Short-range order and correlations of S atoms in thin-layer PbS structures. Mendeleev Communications, 2017, 27, 589-591.	0.6	2
79	Effect of Particle Size and Specific Surface Area on the Determination of the Density of Nanocrystalline Silver Sulfide Ag <sub>2</sub> S Powders. Physics of the Solid State, 2018, 60, 877-881.	0.2	2
80	Elastic Properties of Ag <sub>2</sub> S and ZnS Nanocrystalline Cubic Sulfides. Physics of the Solid State, 2021, 63, 1524-1531.	0.2	2
81	Effect of elastic properties of nanostructured Ag <sub>2</sub> S and ZnS sulfides on interface formation. Materials Science in Semiconductor Processing, 2022, 148, 106766.	1.9	2
82	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
83	Bulk Modulus of Coarse-Crystalline and Nanocrystalline Silver Sulfides. Physics of the Solid State, 2018, 60, 2546-2550.	0.2	1
84	Determination of the Region of Thermal Stability of the Size and Phase Composition of Silver-Sulfide Semiconductor Nanoparticles. Semiconductors, 2018, 52, 1763-1769.	0.2	1
85	Thermal Expansion of Nanostructured Solid Solutions of Lead and Silver Sulfides. International Journal of Nanoscience, 2019, 18, 1940061.	0.4	1
86	Thermal, elastic and optical properties of nanostructured Pb <sub>1-x</sub> Ag <sub>x</sub> S solid solutions. Mendeleev Communications, 2019, 29, 398-399.	0.6	1
87	Effects of Doping of Lead Sulfide with Silver on the Lattice and Optical Properties of Pb <sub>1-x</sub> Ag <sub>x</sub> S Solid Solutions. Semiconductors, 2019, 53, 1665-1671.	0.2	1
88	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
89	Nanostructured Lead Sulfide PbS. Springer Series in Materials Science, 2018, , 31-126.	0.4	1
90	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

#	ARTICLE	IF	CITATIONS
91	Size Characterization of Nanostructured Materials. Springer Series in Materials Science, 2018, , 1-29.	0.4	0
92	The Thermal Expansion of $\text{Ag}_x\text{Pb}_{1-x}\text{S}$ Limited Semiconductor Solid Solutions. Physics of the Solid State, 2019, 61, 982-986.	0.2	0
93	Synthesis and Characterization of $(\text{Ag}_2\text{S})_x(\text{ZnS})_{1-x}$ Heteronanostructures. IOP Conference Series: Materials Science and Engineering, 0, 1008, 012019.	0.3	0
94	Phase Transition in $\text{Ag}_2\text{S}$ and the Relative Position of Atomic Planes of the $\hat{1}\pm\text{-Ag}_2\text{S}$ and $\hat{1}^2\text{-Ag}_2\text{S}$ Phases. JETP Letters, 2021, 114, 156-162.	0.4	0
95	CRYSTAL STRUCTURE OF LEAD SULFIDE NANOPARTICLES IN THIN FILMS. , 2009, , .		0