

Andrei Shevelkov

List of Publications by Year in descending order

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papers

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citations

257450

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289244

40
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102
all docs

102
docs citations

102
times ranked

2234
citing authors

#	ARTICLE	IF	CITATIONS
1	Semiconducting clathrates: synthesis, structure and properties. Russian Chemical Reviews, 2004, 73, 923-938.	6.5	162
2	Chemical aspects of the design of thermoelectric materials. Russian Chemical Reviews, 2008, 77, 1-19.	6.5	116
3	Ferromagnetic Order, Strong Magnetocrystalline Anisotropy, and Magnetocaloric Effect in the Layered Telluride $\text{Fe}_{3\bar{1}}\text{GeTe}_2$. Inorganic Chemistry, 2015, 54, 8598-8607.	4.0	93
4	Iodobismuthates Containing One-Dimensional Bi_4^{\ominus} Anions as Prospective Light-Harvesting Materials: Synthesis, Crystal and Electronic Structure, and Optical Properties. Inorganic Chemistry, 2016, 55, 4132-4140.	4.0	81
5	New Insight into the Formation of Hybrid Perovskite Nanowires via Structure Directing Adducts. Chemistry of Materials, 2017, 29, 587-594.	6.7	68
6	Role of I_2 Molecules and Weak Interactions in Supramolecular Assembling of Pseudo-Three-Dimensional Hybrid Bismuth Polyiodides: Synthesis, Structure, and Optical Properties of Phenylenediammonium Polyiodobismuthate(III). Crystal Growth and Design, 2018, 18, 2572-2578.	3.0	68
7	From Isolated Anions to Polymer Structures through Linking with I_2 : Synthesis, Structure, and Properties of Two Complex Bismuth(III) Iodine Iodides. Inorganic Chemistry, 2018, 57, 4077-4087.	4.0	68
8	Boosting Water Oxidation through In Situ Electroconversion of Manganese Gallide: An Intermetallic Precursor Approach. Angewandte Chemie - International Edition, 2019, 58, 16569-16574.	13.8	60
9	A new formation strategy of hybrid perovskites via room temperature reactive polyiodide melts. Materials Horizons, 2017, 4, 625-632.	12.2	57
10	Introducing a Magnetic Guest to a Tetrel-Free Clathrate: Synthesis, Structure, and Properties of $\text{Eu}_x\text{Ba}_{8-x}\text{Cu}_{16}\text{P}_{30}$ ($0 \leq x \leq 1.5$). Inorganic Chemistry, 2011, 50, 10387-10396.	4.0	53
11	Phase diagrams in materials science of topological insulators based on metal chalcogenides. Russian Journal of Inorganic Chemistry, 2017, 62, 1703-1729.	1.3	51
12	Experimental investigation of the AgBi_4 ternary system and thermodynamic properties of the ternary phases. Journal of Alloys and Compounds, 2013, 551, 512-520.	5.5	50
13	Highly Disordered Crystal Structure and Thermoelectric Properties of Sn_3P_4 . Chemistry of Materials, 2008, 20, 2476-2483.	6.7	48
14	Effects of the order-disorder phase transition on the physical properties of $\text{A}_8\text{Sn}_{44-2}$ (A = Rb, Cs). Journal of Materials Chemistry, 2008, 18, 5630.	6.7	46
15	Low-Temperature Structure and Thermoelectric Properties of Pristine Synthetic Tetrahedrite $\text{Cu}_{12}\text{Sb}_4\text{S}_{13}$. Chemistry of Materials, 2016, 28, 6621-6627.	6.7	41
16	Unique Metallic Wires in a Novel Quasi-1D Compound. Synthesis, Crystal and Electronic Structure, and Properties of $\text{Ni}_8\text{Bi}_8\text{Si}$. Journal of the American Chemical Society, 2001, 123, 12375-12379.	13.7	39
17	Homo- and hetero-metallic rhenium oxomethoxide complexes with a $\text{M}_4(\mu\text{-O})_2(\mu\text{-OMe})_4$ planar core—a new family of metal alkoxides displaying a peculiar structural disorder. Preparation and X-ray single crystal study. Dalton Transactions RSC, 2001, , 2762-2768.	2.3	38
18	Interplay between localized and itinerant magnetism in Co-substituted FeGa_3 . Physical Review B, 2014, 89, .	3.2	36

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19	The crystal structure of Bi ₄ condensed bismuth clusters. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 1992, 612, 118-122.	1.2	32
20	Strong electron-phonon coupling in the intermetallic superconductor $\text{Mo}_8\text{Ga}_4\text{In}$. Physical Review B, 2016, 93, .	3.8	31
21	Assembling Polyiodides and Iodobismuthates Using a Template Effect of a Cyclic Diammonium Cation and Formation of a Low-Gap Hybrid Iodobismuthate with High Thermal Stability. Molecules, 2020, 25, 2765.	6.7	27
22	Crystal Growth of the Nowotny Chimney Ladder Phase Fe_2Ge_3 : Exploring New Fe-Based Narrow-Gap Semiconductor with Promising Thermoelectric Performance. Chemistry of Materials, 2017, 29, 9954-9963.	1.5	25
23	Mercury and cadmium pnictidehalides: the inverted Zintl phases. Russian Chemical Bulletin, 2001, 50, 337-352.	4.1	25
24	Intermetallic Fe_6Ge_5 formation and decay of a core-shell structure during the oxygen evolution reaction. Chemical Communications, 2021, 57, 2184-2187.	3.2	24
25	Two-gap superconductivity in $\text{Mo}_8\text{Ga}_4\text{In}$ and its evolution upon vanadium substitution. Physical Review B, 2017, 96, .	1.5	21
26	New polymolecular bismuth monohalides. Synthesis and crystal structures of $\text{Bi}_4\text{Br}_4\text{I}_x$ (x = 1, 2, or 3). Overlock 10	1.5	21
27	Crystal growth and electronic phase diagram of $\text{M}_4\text{M}_d\text{M}_{\text{ext}}\text{I}_2$. Physical Review B, 2015, 91, .	5.5	17
28	Helical magnetic structure and hyperfine interactions in FeP studied by ^{57}Fe Mössbauer spectroscopy and ^{31}P NMR. Journal of Alloys and Compounds, 2016, 675, 277-285.	1.5	17
29	Synthesis, structure, and properties of $\text{LnBi}_6\text{I}_{13}\text{H}_2\text{O}$ (Ln = La, Nd). Russian Chemical Bulletin, 2017, 66, 1196-1201.	1.5	17
30	Crystal structure and two-level supramolecular organization of glycinium triiodide. Russian Chemical Bulletin, 2019, 68, 1520-1524.	2.9	16
31	Role of iron in synthetic tetrahedrites revisited. Journal of Solid State Chemistry, 2016, 235, 28-35.	4.0	14
32	Two New Arsenides, $\text{Eu}_7\text{Cu}_{44}\text{As}_{23}$ and $\text{Sr}_7\text{Cu}_{44}\text{As}_{23}$, With a New Filled Variety of the BaHg_{11} Structure. Inorganic Chemistry, 2014, 53, 11173-11184.	6.5	14
33	Metal-inorganic frameworks with pnictogen linkers. Russian Chemical Reviews, 2018, 87, 28-48.	4.0	13
34	Structural and Thermodynamic Stability of the EuZn_2Pn Structure Type: A Case Study of the EuZn_2Pn Series. Inorganic Chemistry, 2016, 55, 12409-12418.	4.0	13
35	Endohedral Cluster Superconductors in the MoGaSn System Explored by the Joint Flux Technique. Inorganic Chemistry, 2019, 58, 15552-15561.	4.0	13
36	Crystal Growth of Intermetallics from the Joint Flux: Exploratory Synthesis through the Control of Valence Electron Count. Inorganic Chemistry, 2019, 58, 1561-1570.		

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37	Crystal growth, electronic structure, and properties of Ni-substituted FeGa. Journal of Solid State Chemistry, 2016, 236, 166-172.	2.9	12
38	Indium Doping of Lead-Free Perovskite Cs ₂ SnI ₆ . Frontiers in Chemistry, 2020, 8, 564.	3.6	12
39	Antiferromagnetic ground state in the $MnGa_4$ compound. Physical Review Materials, 2018, 2, .		
40	Reversal Topotactic Removal of Acetone from (HMTH) ₂ Bi ₅ ·(CH ₃) ₂ C=O Accompanied by Rearrangement of Weak Bonds, from 1D to 3D Patterns. Crystal Growth and Design, 2020, 20, 87-94.	3.0	11
41	Mo ₆ Ga ₃₁ endohedral cluster superconductor. Journal of Alloys and Compounds, 2020, 848, 156400.	5.5	11
42	Family of Mo ₄ Ga ₂₁ -Based Superconductors. Chemistry of Materials, 2020, 32, 6730-6735.	6.7	11
43	Synthesis and supramolecular organization of the iodide and triiodides of a polycyclic adamantane-based diammonium cation: the effects of hydrogen bonds and weak I···I interactions. CrystEngComm, 2021, 23, 2384-2395.	2.6	11
44	Title is missing!. Russian Chemical Bulletin, 2002, 51, 444-448.	1.5	10
45	Anomalously low thermal conductivity and thermoelectric properties of new cationic clathrates in the Sn-In-As-I system. Semiconductors, 2011, 45, 1399-1403.	0.5	10
46	New Fe-based layered telluride Fe ₃ As ₁ Te ₂ : synthesis, crystal structure and physical properties. Dalton Transactions, 2016, 45, 16938-16947.	3.3	10
47	Single-gap superconductivity in Mo ₈ Ga ₄₁ . Scientific Reports, 2019, 9, 13552.	3.3	10
48	Synthesis, Crystal Structure, and Thermoelectric Properties of Clathrates in the Sn ₄ As ₄ System. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2011, 637, 2059-2067.	1.2	9
49	From endohedral cluster superconductors to approximant phases: synthesis, crystal and electronic structure, and physical properties of Mo ₈ Ga ₄₁ _x Zn _x and Mo ₇ Ga ₅₂ _x Zn _x . Dalton Transactions, 2019, 48, 7853-7861.	3.3	9
50	Electron-Precise Semiconducting ReGa ₂ Ge: Extending the IrIn ₃ Structure Type to Group 7 of the Periodic Table. Inorganic Chemistry, 2020, 59, 12748-12757.	4.0	9
51	Endohedral cluster intermetallic superconductors: at the frontier between chemistry and physics. Dalton Transactions, 2021, 50, 5109-5114.	3.3	9
52	Intermetallic compounds with non-metallic properties. Russian Chemical Bulletin, 2020, 69, 2231-2255.	1.5	9
53	Sb Magnetic Resonance as a Local Probe for the Gap Formation in the Correlated Semimetal FeSb ₂ . Applied Magnetic Resonance, 2014, 45, 1237-1252.	1.2	8
54	Layered Compounds BaFMgPn (Pn = P, As, Sb, and Bi), Transition-Metal-Free Representatives of the 1111 Structure Type. Inorganic Chemistry, 2019, 58, 3435-3443.	4.0	8

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55	When two is enough: On the origin of diverse crystal structures and physical properties in the Fe-Ge system. <i>Journal of Solid State Chemistry</i> , 2019, 270, 118-128.	2.9	8
56	Position and oxidation state of tin in Sn-bearing tetrahedrites Cu _{12-x} Sn _x Sb ₄ S ₁₃ . <i>Journal of Alloys and Compounds</i> , 2019, 778, 774-778.	5.5	8
57	EuNi ₂ P ₄ , the first magnetic unconventional clathrate prepared via a mechanochemically assisted route. <i>Inorganic Chemistry Frontiers</i> , 2020, 7, 1115-1126.	6.0	8
58	Thermally Activated Electron Exchange in Cu _{12-x} Fe _x Sb ₄ S ₁₃ (x = 1.3, 1.5) Tetrahedrites: A Mössbauer Study. <i>Journal of Physical Chemistry C</i> , 2017, 121, 4548-4557.	3.1	7
59	Synthesis, structure, and properties of Schiff base iodobismuthate and its alteration in DMSO solution. <i>Russian Chemical Bulletin</i> , 2018, 67, 1212-1219.	1.5	7
60	Effect of the cation sublattice composition of tin-based type-I clathrates on their low-temperature thermal properties. <i>Dalton Transactions</i> , 2018, 47, 11219-11225.	3.3	7
61	Supramolecular organization of the organic-inorganic hybrid [p-(CH ₃) ₂ NH-C ₆ H ₄ -NH ₃] ₂ Cl][BiI ₆]: assembly of a three-dimensional structure via covalent and non-covalent interactions. <i>Russian Chemical Bulletin</i> , 2021, 70, 39-46.	1.5	7
62	Molecular and Supramolecular Structures of Triiodides and Polyiodobismuthates of Phenylenediammonium and Its N,N-dimethyl Derivative. <i>Molecules</i> , 2021, 26, 5712.	3.8	7
63	Synthesis and crystal structure of new double mercury silver phosphide iodide Hg ₁₂ Ag ₄₁ P ₈₈ I ₄₁ . <i>Russian Chemical Bulletin</i> , 2007, 56, 1948-1952.	1.5	5
64	Nontrivial Recurrent Intergrowth Structure and Unusual Magnetic Behavior of Intermetallic Compound Fe ₃₂ Ir ₃₃ As ₂ . <i>Inorganic Chemistry</i> , 2016, 55, 12953-12961.	4.0	5
65	ReGaGe ₂ : an intermetallic compound with semiconducting properties and localized bonding. <i>Chemical Communications</i> , 2019, 55, 5821-5824.	4.1	5
66	Semiconducting and superconducting MoGa frameworks: total energy and chemical bonding. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 1702-1709.	6.0	5
67	Title is missing!. <i>Russian Chemical Bulletin</i> , 2003, 52, 570-575.	1.5	4
68	Solid State Supramolecular Complexes [Hg ₆ As ₄](CuX ₃) ₂ (X = Cl, Br): One-Dimensional Helical Guest in a Three-Dimensional Host Framework. <i>Journal of Cluster Science</i> , 2005, 16, 273-285.	3.3	4
69	Low-Temperature Transport Properties of Sn ₂₄ P _{19.3} Br ₈ and Sn ₁₇ Zn ₇ P ₂₂ Br ₈ . <i>Journal of Electronic Materials</i> , 2009, 38, 985-989.	2.2	4
70	Crystal structures and physicochemical properties of mixed salts of ammonium nitrate and sulfate. <i>Russian Chemical Bulletin</i> , 2012, 61, 33-39.	1.5	4
71	On the crystal structure of the germanium-based cationic clathrates [Ge _{38.3} Sb _{7.7}] _{17.44} , [Ge _{38.1} P _{7.9}] ₁₈ , and [Ge _{30.5} Sn _{7.7} P _{7.75}] _{17.88} . <i>Russian Journal of Coordination Chemistry/Koordinatsionnaya Khimiya</i> , 2012, 38, 192-199.	1.0	4
72	Synthesis, extended and local crystal structure, and thermoelectric properties of Fe _{1-x} R _x Ga ₃ solid solution. <i>Journal of Alloys and Compounds</i> , 2019, 804, 331-338.	5.5	4

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73	Solid-Phase Equilibria in the Cu-Sb-S System and Thermodynamic Properties of Copper-Antimony Sulfides. <i>Jom</i> , 2021, 73, 1522-1530.	1.9	4
74	Thermoelectric Power Generation by Clathrates. , 0, , .		3
75	Silver-chalcogen frameworks: crystal and electronic structure of [Ag ₃ S](NO ₃) and a comparison with [Ag ₄ Te](SO ₄). <i>Structural Chemistry</i> , 2019, 30, 443-450.	2.0	3
76	ReGa _{0.4} Ge _{0.6} : Intermetallic Compound with Pronounced Covalency in the Bonding Pattern. <i>Inorganic Chemistry</i> , 2019, 58, 2822-2832.	4.0	3
77	Synthesis, crystal and electronic structures of Pt-rich phosphides EuPt ₃ P and EuPt ₆ P ₂ . <i>Dalton Transactions</i> , 2019, 48, 15272-15282.	3.3	3
78	Chemical pressure in the correlated narrow-gap semiconductor FeGa ₃ . <i>Journal of Materials Science</i> , 2019, 54, 2371-2378.	3.7	3
79	Nowotny Chimney Ladder Phases with Group 5 Metals: Crystal and Electronic Structure and Relations to the CrSi ₂ Structure Type. <i>Crystals</i> , 2020, 10, 670.	2.2	3
80	Crystal lattice disorder and characteristic features of the low-temperature thermal properties of higher borides. <i>Dalton Transactions</i> , 2020, 49, 2138-2144.	3.3	3
81	Pattern of covalent and non-covalent interactions within the pentaiodide anion in the structure of (3â€œHOC ₅ H ₉ NH ₂)I ₅ . <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 0, , .	1.2	3
82	Intermetallic Compound Re ₂ Ga ₉ Ge with Re- and Ge-Embedded Gallium Clusters: Synthesis, Crystal Structure, Chemical Bonding, and Physical Properties. <i>Inorganic Chemistry</i> , 2022, 61, 568-578.	4.0	3
83	Fe-Rich Ferromagnetic Cleavable Van der Waals Telluride Fe ₅ AsTe ₂ . <i>Inorganic Chemistry</i> , 2022, 61, 9224-9230.	4.0	3
84	Synthesis and clathrate-type crystal structure of a solid solution in the Sn-In-P-Br system. <i>Russian Chemical Bulletin</i> , 2012, 61, 28-32.	1.5	2
85	Experimental and Computational Insight into the Chemical Bonding and Electronic Structure of Clathrate Compounds in the Snâ€œInâ€œAsâ€œI System. <i>Inorganic Chemistry</i> , 2015, 54, 11542-11549.	4.0	2
86	Effect of Transition Metal Substitution on the Structure and Properties of a Clathrate-Like Compound Eu ₇ Cu ₄₄ As ₂₃ . <i>Materials</i> , 2016, 9, 587.	2.9	2
87	New clathrate-like compound Eu ₇ Cu ₄₄ Sb ₂₃ Î: synthesis, crystal and electronic structure, and the effect of As-for-Sb substitution on the magnetic properties. <i>Intermetallics</i> , 2018, 98, 1-10.	3.9	2
88	From Fe ₃₂ +Ge ₃₅ -P to Fe ₃₂ +Ge ₃₅ -P As : Fine geometry optimization in new intergrowth structures. <i>Journal of Alloys and Compounds</i> , 2019, 779, 229-236.	5.5	2
89	Synthesis, electronic structure and physical properties of two new layered compounds, EuFagSe and EuFag _{1â€œÎ} Te, featuring the active redox pair Eu ²⁺ /Ag ⁺ . <i>Dalton Transactions</i> , 2020, 49, 7426-7435.	3.3	2
90	Magnetic structures of Fe ₃₂ +ÎGe ₃₃ As ₂ and Fe ₃₂ +Îâ€œGe ₃₅ â€œxPx intermetallic compounds: a neutron diffraction and ⁵⁷ Fe MÃ¶ssbauer spectroscopy study. <i>Dalton Transactions</i> , 2021, 50, 2210-2220.	3.3	2

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91	Formation and Destruction of Platinum Carbonyl [Pt(CO) ₂] _n . Russian Journal of Inorganic Chemistry, 2021, 66, 348-353.	1.3	2
92	Soft chemistry of pure silver as unique plasmonic metal of the Periodic Table of Elements. Pure and Applied Chemistry, 2020, 92, 1007-1028.	1.9	2
93	Intricate magnetic behavior of Fe ₆ Ge ₅ and its origin within a complex iron framework: The magnetic and ⁵⁷ Fe Mössbauer study. Journal of Alloys and Compounds, 2022, 902, 163759.	5.5	2
94	Synthesis and the crystal and electronic structure of Hg ₄ As ₅ . Russian Chemical Bulletin, 2006, 55, 762-765.	1.5	1
95	Distribution of phosphorus and arsenic atoms in the solid solution Sn ₂₄ As _x P _{19.3-x} I ₈ with the structure of clathrate-I. Russian Chemical Bulletin, 2009, 58, 746-750.	1.5	1
96	Synthesis and characterization of amantadinium iodoacetatobismuthate, a hybrid compound with mixed iodide-carboxylate anions. Mendeleev Communications, 2022, 32, 194-197.	1.6	1
97	Ferromagnetic correlations in the layered van der Waals sulfide FeAl ₂ S ₄ . Dalton Transactions, 2022, 51, 8454-8460.	3.3	1
98	Inside Cover: Bulk and Surface Structure and High-Temperature Thermoelectric Properties of Inverse Clathrate-III in the Si ₄ P ₄ Te System (Chem. Eur. J. 42/2010). Chemistry - A European Journal, 2010, 16, 12494-12494.	3.3	0
99	The specific features of phononic and magnetic subsystems of type-VII clathrate EuNi ₂ P ₄ . Physical Chemistry Chemical Physics, 2020, 22, 18025-18034.	2.8	0
100	Temperature-dependent influence of disorder on the thermodynamic properties of Sn _{20.5} - _{3.5} As ₂₀ 18, a vacancy-driven superstructure of the type-I clathrate. Philosophical Magazine, 2021, 101, 2092-2107.	1.6	0
101	Transport Properties of Sn ₂₄ P _{19.3} Br ₈ Sn ₁₇ Zn ₇ P ₂₂ Br ₈ . Ceramic Engineering and Science Proceedings, 0, , 77-84.	0.1	0