

Sergey Simonov

List of Publications by Year in descending order

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91
papers

1,365
citations

361413

20
h-index

377865

34
g-index

93
all docs

93
docs citations

93
times ranked

1558
citing authors

#	ARTICLE	IF	CITATIONS
1	Large Spontaneous Polarization and Clear Hysteresis Loop of a Room-Temperature Hybrid Ferroelectric Based on Mixed-Halide [Bi ₃ Cl ₂] Polar Chains and Methylviologen Dication. <i>Journal of the American Chemical Society</i> , 2011, 133, 14924-14927.	13.7	153
2	Ultra-fast Rotors for Molecular Machines and Functional Materials via Halogen Bonding: Crystals of 1,4-Bis(iodoethynyl)bicyclo[2.2.2]octane with Distinct Gigahertz Rotation at Two Sites. <i>Journal of the American Chemical Society</i> , 2011, 133, 6371-6379.	13.7	98
3	Crystalline Arrays of Pairs of Molecular Rotors: Correlated Motion, Rotational Barriers, and Space-Inversion Symmetry Breaking Due to Conformational Mutations. <i>Journal of the American Chemical Society</i> , 2013, 135, 9366-9376.	13.7	92
4	Design and Evaluation of a Crystalline Hybrid of Molecular Conductors and Molecular Rotors. <i>Journal of the American Chemical Society</i> , 2012, 134, 7880-7891.	13.7	52
5	Charge ordering, symmetry and electronic structure issues and Wigner crystal structure of the quarter-filled band Mott insulators and high pressure metals $\hat{\Gamma}$ -(EDT-TTF-CONMe ₂) ₂ X, X = Br and AsF ₆ . <i>Journal of Materials Chemistry</i> , 2009, 19, 6980.	6.7	46
6	New phase in the water-hydrogen system. <i>Journal of Alloys and Compounds</i> , 2011, 509, S860-S863.	5.5	42
7	The Conducting Spin-Crossover Compound Combining Fe(II) Cation Complex with TCNQ in a Fractional Reduction State. <i>Inorganic Chemistry</i> , 2016, 55, 9121-9130.	4.0	39
8	Angle-Dependent Magnetoresistance in the Weakly Incoherent Interlayer Transport Regime in a Layered Organic Conductor. <i>Physical Review Letters</i> , 2006, 96, 166601.	7.8	37
9	Ionic compound containing iron phthalocyanine (FePc) ²⁻ anions and (C ₇₀) ²⁺ dimers. Optical and magnetic properties of (FePc) ²⁻ in the solid state. <i>Dalton Transactions</i> , 2012, 41, 13841.	3.3	37
10	A Neutral Zwitterionic Molecular Solid. <i>Chemistry - A European Journal</i> , 2010, 16, 14051-14059.	3.3	36
11	Effect of electrocrystallization medium on quality, structural features, and conducting properties of single crystals of the (BEDT-TTF) ₄ Al[FeIII(C ₂ O ₄) ₃] ₃ ·G family. <i>CrystEngComm</i> , 2011, 13, 537-545.	2.6	32
12	Reversible Control of Crystalline Rotors by Squeezing Their Hydrogen Bond Cloud Across a Halogen Bond-Mediated Phase Transition. <i>Crystal Growth and Design</i> , 2014, 14, 3375-3383.	3.0	31
13	Coexistence of two donor packing motifs in the stable molecular metal $\hat{\Gamma}$ -pseudo- $\hat{\Gamma}$ TM -(BEDT-TTF) ₄ (H ₃ O)[Fe(C ₂ O ₄) ₃] ₃ ·C ₆ H ₄ Br ₂ . <i>CrystEngComm</i> , 2011, 13, 2430.	2.6	30
14	The first molecular superconductor based on BEDT-TTF radical cation salt with paramagnetic tris(oxalato)ruthenate anion. <i>CrystEngComm</i> , 2013, 15, 7048.	2.6	29
15	Synthesis, Structure, and Magnetic Properties of 1D {[Mn ^{III} (CN) ₆][Mn ^{II} (dapsc)]} _n Coordination Polymers: Origin of Unconventional Single-Chain Magnet Behavior. <i>Inorganic Chemistry</i> , 2017, 56, 8926-8943.	4.0	29
16	Structure and properties of ionic fullerene complex Co+(dppe)2·(C ₆₀) TM ·(C ₆ H ₄ Cl ₂) ₂ : distortion of the ordered fullerene cage of C ₆₀ TM radical anions. <i>Dalton Transactions</i> , 2011, 40, 4453.	3.3	23
17	Gearing motion in cogwheel pairs of molecular rotors: weak-coupling limit. <i>CrystEngComm</i> , 2015, 17, 7829-7834.	2.6	23
18	New Organic Metals Based on BDH-TTP Radical Cation Salts with the Photochromic Nitroprusside Anion [FeNO(CN) ₅] ₂ ⁴⁻ . <i>Advanced Functional Materials</i> , 2004, 14, 660-668.	14.9	22

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19	Structure and magnetotransport properties of the new quasi-two-dimensional molecular metal $\text{[Pt}^{2+}(\text{BEDT-TTF})_4\text{H}_3\text{O}[\text{Fe}(\text{C}_2\text{O}_4)_3] \cdot \text{C}_6\text{H}_4\text{Cl}_2$. Journal of Experimental and Theoretical Physics, 2008, 106, 347-354.	0.9	20
20	Structural phase transition in the $\text{[Pt}^{2+}(\text{BEDT-TTF})_4\text{H}_3\text{O}[\text{Fe}(\text{C}_2\text{O}_4)_3]_3 \cdot \text{G}]$ crystals (where G is a guest solvent molecule). CrystEngComm, 2012, 14, 460-465.	1.6	20
21	Experimental observation of C60 LUMO splitting in the C60 ²⁻ dianions due to the Jahn-Teller effect. Comparison with the C60 ^{•-} radical anions. Physical Chemistry Chemical Physics, 2013, 15, 9136.	2.8	19
22	Slow magnetic relaxation in mononuclear complexes of Tb, Dy, Ho and Er with the pentadentate (N ₃ O ₂) Schiff-base dapsco ligand. New Journal of Chemistry, 2018, 42, 14883-14893.	2.8	19
23	Metallic Bi- and Monolayered Radical Cation Salts Based on Bis(ethylenedithio)tetrathiafulvalene (BEDT-TTF) with the Tris(oxalato)gallate Anion. European Journal of Inorganic Chemistry, 2014, 2014, 3933-3940.	2.0	18
24	Preparation of $\text{[Ni(dppp)(C}_70\text{)]} \cdot (\text{C}_6\text{H}_4\text{Cl}_2)_0.5$ complexes of fullerenes by reduction. Crystal structure and optical properties of $\text{[Ni(dppp)(C}_70\text{)]} \cdot (\text{C}_6\text{H}_4\text{Cl}_2)_0.5$. Dalton Transactions, 2011, 40, 9176.	3.3	17
25	Superconducting fluctuations in organic molecular metals enhanced by Mott criticality. Scientific Reports, 2013, 3, 3390.	3.3	17
26	Effect of Halopyridine Guest Molecules on the Structure and Superconducting Properties of $\text{[Pt}^{2+}(\text{BEDT-TTF})_4\text{H}_3\text{O}[\text{Fe}(\text{C}_2\text{O}_4)_3]_3 \cdot \text{G}]$ Crystals. European Journal of Inorganic Chemistry, 2015, 2015, 5611-5620.	3.3	16
27	The first pentagonal-bipyramidal vanadium(III) complexes with a Schiff-base N ₃ O ₂ pentadentate ligand: synthesis, structure and magnetic properties. Dalton Transactions, 2020, 49, 15287-15298.	3.3	16
28	Variety of molecular conducting layers in the family of radical cation salts based on BEDT-TTF with the metal mononitrosyl complex $[\text{OsNOCl}_5]^{2-}$. Journal of Materials Chemistry, 2005, 15, 2476.	6.7	15
29	1D chain coordination assembly of $[\text{Mn}_4(\text{hmp})_6(\text{NO}_3)_2]^{2+}$ single-molecule magnets linked by the photochromic $[\text{FeNO}(\text{CN})_5]^{2+}$ precursor. Inorganica Chimica Acta, 2011, 378, 169-173.	2.4	14
30	Structure and optical properties of fullerene C_{60} complex with dipyridinated iron(II) phthalocyanine $[\text{Fe}(\text{C}_5\text{H}_5\text{N})_2(\text{C}_5\text{H}_5\text{N})_2]^{2+}$ complex with acetonitrile		

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37	Specific Structural Disorder in an Anion Layer and Its Influence on Conducting Properties of New Crystals of the (BEDT-TTF)4A+[M3+(ox)3]G Family, Where G Is 2-Halopyridine; M Is Cr, Ga; A+ Is [K0.8(H3O)0.2]+. <i>Crystals</i> , 2018, 8, 92.	2.2	12
38	Slow Magnetic Relaxation, Antiferromagnetic Ordering, and Metamagnetism in Mn ^{II} (H ₂ daps) ⁺ Fe ^{III} (CN) ₆ Chain Complex with Highly Anisotropic Fe ^{II} -Mn Spin Coupling. <i>Chemistry - A European Journal</i> , 2019, 25, 14583-14597.	3.3	12
39	The first BDH-TTP radical cation salts with mercuric counterions, [BDH-TTP]4[Hg(SCN)4]·C6H5NO2 and [BDH-TTP]6[Hg(SCN)3][Hg(SCN)4]. <i>Synthetic Metals</i> , 2005, 155, 588-594.	3.9	11
40	A novel family of hepta-coordinated Cr(III) complexes with a planar pentadentate N3O2 Schiff base ligand: synthesis, structure and magnetism. <i>Inorganica Chimica Acta</i> , 2021, 522, 120358.	2.4	11
41	Structural features of low-dimensional molecular conductors—Representatives of new hybrid polyfunctional materials: Review. <i>Crystallography Reports</i> , 2006, 51, 949-967.	0.6	10
42	Spin-crossover behavior of neutral iron(II) complexes with salicylaldehyde thio-, seleno- and semicarbazone ligands: experiment and theoretical analysis. <i>Dalton Transactions</i> , 2019, 48, 9328-9336.	3.3	10
43	Properties of Mn ²⁺ and Fe ^{II} -Electron Spin Systems Probed by 1H and 13C NMR in the Organic Conductor [BEDT]2Mn[N(CN)2]3. <i>Crystals</i> , 2012, 2, 224-235.	2.2	9
44	Heterometallic complexes combining [Mn ^{III} (salpn)] ⁺ and [Fe(CN) ₆] ⁴⁻ units as the products of reactions between [Mn ^{III} (salpn)(H ₂ O)C(CN) ₃] and [Fe(CN) ₆] ^{3-/4-} . <i>New Journal of Chemistry</i> , 2014, 38, 4167-4176.	2.8	9
45	meso-Phenyltetrabenzotriazaporphyrin based double-decker lanthanide(III) complexes: synthesis, structure, spectral properties and electrochemistry. <i>Dalton Transactions</i> , 2015, 44, 16553-16564.	3.3	9
46	Growth and Characterization of Neodymium-Doped Yttrium Scandate Crystal Fiber with a Bixbyite-type Crystal Structure. <i>Crystal Growth and Design</i> , 2020, 20, 4593-4599.	3.0	9
47	A Series of Novel Pentagonal-Bipyramidal Erbium(III) Complexes with Acyclic Chelating N3O2 Schiff-Base Ligands: Synthesis, Structure, and Magnetism. <i>Molecules</i> , 2021, 26, 6908.	3.8	9
48	Structure and spectral properties of fullerene C ₆₀ tetraoctylammonium bromide composition in neutral and ionic states: experimental data and theoretical analysis. <i>RSC Advances</i> , 2013, 3, 8341.	3.6	8
49	Exploitation of the photochromic nitroprusside anion [FeNO(CN)5] ²⁻ as counterion for constructing molecular conductors: The first radical cation salts based on BDH-TTP and the amide functionalized derivatives of EDT-TTF. <i>European Physical Journal Special Topics</i> , 2004, 114, 481-485.	0.2	7
50	A new hybrid molecular metal assembling a BEDT-TTF conducting network and the magnetic chain anion [Mn2Cl5(H2O)5] [±] : [BDH-TTP]2[Mn2Cl5(H2O)5]. <i>CrystEngComm</i> , 2009, 11, 2102.	2.6	7
51	First Mn(III) complexes with tetradentate (N2O2) Schiff bases and tricyanomethanide: synthesis, crystal structure, and magnetic properties. <i>Russian Chemical Bulletin</i> , 2013, 62, 1777-1785.	1.5	6
52	High-pressure solid solutions of molecular hydrogen in amorphous magnesium silicates. <i>Journal of Alloys and Compounds</i> , 2019, 770, 229-235.	5.5	6
53	Hybrid molecular metals based on BEDO-TTF salts with paramagnetic [CrNO(CN)5] ³⁻ and [M(CN)6] ³⁻ anions, M=Fe, Cr. <i>Journal of Low Temperature Physics</i> , 2006, 142, 137-140.	1.4	5
54	Bifunctional molecular metals based on BEDO-TTF radical cation salts with paramagnetic [M(III)(CN)6] ³⁻ anions, M=Fe, Cr, (Fe0.5Co0.5). <i>Synthetic Metals</i> , 2008, 158, 749-757.	3.9	5

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55	The doubly oxo-bridged dinuclear Fe(III) complex, [Fe ₂ (hmp) ₂ Cl ₄], as a reaction product of the [Mn ₄ (hmp) ₆ (NO ₃) ₂ (H ₂ O) ₂] ²⁺ cluster with [FeCl ₄] ⁻ . Inorganic Chemistry Communication, 2012, 21, 57-60.	3.9	5
56	Manganese(III) complexes with tetradentate (N ₂ O ₂) Schiff bases and dicyanamide. Russian Journal of Coordination Chemistry/Koordinatsionnaya Khimiya, 2013, 39, 201-208.	1.0	5
57	Insights into the influence of ethylene group orientation on the iron(III) spin state in the spin crossover complex [Fe ^{III} (Sal ₂ -trien)] ⁺ . Dalton Transactions, 2018, 47, 16040-16043.	3.3	5
58	Evolution of Spin-Crossover Transition in Hybrid Crystals Involving Cationic Iron Complexes [Fe(III)(3-OMeSal ₂ -trien)] ⁺ and Anionic Gold Bis(dithiolene) Complexes Au(dmit) ₂ and Au(dddt) ₂ . Crystals, 2018, 8, 382.	2.2	5
59	Crystalline patterns and band structure dimensionality in a series of conducting hybrids associating amide-functionalized EDT-TTF π -donors with the isosteric octahedral anions [FeNO(CN) ₅] ²⁻ and [M(CN) ₆] ³⁻ (M = Co, Fe). Synthetic Metals, 2005, 155, 527-538.	3.9	4
60	Transformation of the [Mn ^{II}] ₂ Mn ^{III}] ₂ (hmp) ₆] ⁴⁺ Core into [Co ^{III}] ₂ Mn ^{II}] ₂ (hmp) ₆] ⁴⁺ in the Reaction of the [Mn ₄ (hmp) ₆ (NO ₃) ₂ (H ₂ O) ₂] ²⁺ Cluster with [CoX ₄] ²⁻ (X = Cl, Br). European Journal of Inorganic Chemistry, Magnetism, Conductivity and Spin-Spin Interactions in Layered Hybrid Structure of Anionic Radicals	2.0	4
61	[Ni(dmit) ₂] Alternated by Iron(III) Spin-Crossover Complex [Fe(III)(3-OMe-Sal ₂ trien)] and Ferric Moiety Precursors. Molecules, 2020, 25, 4922.	3.8	4
62	Synthesis of 1,2-Dicyanoacrylcycl[3.2.2]azines – First 1,2-Dicarbonitriles Based on Cyclazine Heterocycle. European Journal of Organic Chemistry, 2020, 2020, 5852-5856.	2.4	4
63	Incoherent versus coherent interlayer transport in layered conductors under a magnetic field. European Physical Journal Special Topics, 2005, 131, 265-268.	0.2	3
64	Hydrothermal synthesis and crystal structure of lithium scandium orthophosphate Li ₂ Sc[H(PO ₄) ₂]. The Li ₂ M ^{III} [H(PO ₄) ₂] family (M ^{III} = Fe, Sc, In). Russian Journal of Inorganic Chemistry, 2009, 54, 1750-1762.	1.3	3
65	New molecular magnetic metals: $\hat{\Gamma}^{\ominus}$ -(BDH-TTP) ₄ CuCl ₄ ·(H ₂ O) _n and $\hat{\Gamma}^{\ominus}$ -(BDH-TTP) ₂ [CuCl ₄] _{0.67} ·(H ₂ O) _{0.33} (BDH-TTP is 2,5-bis(1,3-dithiolan-2-ylidene)-1,3,4,6-tetrathiapentalene). Russian Chemical Bulletin, 2010, 59, 1729-1734.	1.5	3
66	Amino Acid Derivatives of Tetrathiafulvalene and Their N ⁺ H ⁻ O Peptide Bond Dipoles-templated Solid State Assemblies. European Journal of Organic Chemistry, 2013, 2013, 921-928.	2.4	3
67	Multimagnetic Properties of a Novel SCO [Fe(3-OMeSal ₂ trien)][Fe(tdas) ₂] ⁺ ·CH ₃ CN Salt. European Journal of Inorganic Chemistry, 2020, 2020, 4556-4567.	2.0	3
68	Molecular conductors with the common and robust building block (BEDT-TTF) ₂ NP (NP =) Tj ETQq ₀ 0 0 rgBT /Overlock 10 Tf 50 222 Td (6.7	2
69			

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73	Structural phase transition in crystals of the molecular conductor $\hat{I}^{\pm} \cdot (\text{BDH-TTP})_6 [\text{Hg}(\text{SCN})_3] [\text{Hg}(\text{SCN})_4]$. Crystallography Reports, 2008, 53, 1003-1008.	0.6	1
74	Magnetotransport properties of a new hybrid metal $\hat{I}^{\pm} \cdot (\text{BEDT-TTF})_2 [\text{Mn}_2\text{Cl}_5(\text{H}_2\text{O})_5]$. Physica B: Condensed Matter, 2010, 405, S247-S249.	2.7	1
75	Single-Crystal-to-Single-Crystal Transformation from $\hat{I}^{\pm} \cdot (\text{BEDT-TTF})_4 [\text{OsNOCl}_5]_{1.33} (\text{C}_6\text{H}_5\text{NO}_2)_{0.67}$ to $\hat{I}^{2-} \cdot (\text{BEDT-TTF})_3 [\text{OsNOCl}_5]$. Crystals, 2012, 2, 627-642.	2.2	1
76	New low-dimensional molecular conductors based on bis(ethylenedithio)tetrathiafulvalene radical cation salts with octahedral metal complex anion $[\text{ReIVCl}_6]^{2-}$. Russian Chemical Bulletin, 2016, 65, 2388-2395.	1.5	1
77	Shubnikov-de Haas oscillations and electronic correlations in the layered organic metal $\hat{I}^{\pm} \cdot (\text{BETS})_2 \text{Mn}[\text{N}(\text{CN})_2]_3$. Low Temperature Physics, 2017, 43, 239-243.	0.6	1
78	Novel K/Mn phosphate hydrates, $\text{K}_2\text{Mn}_3(\text{H}_2\text{O})_2[\text{P}_2\text{O}_7]_2$ and $\text{KMn}(\text{H}_2\text{O})_2[\text{Al}_2(\text{PO}_4)_3]$: hydrothermal synthesis and crystal chemistry. Acta Crystallographica Section C, Structural Chemistry, 2020, 76, 302-310.	0.5	1
79	Glycine Residue Twists HOMO-HOMO Interactions in a Molecular Conductor. Crystal Growth and Design, 2020, 20, 3546-3554.	3.0	1
80	Cyano-bridged polynuclear coordination compounds derived from paramagnetic $[\text{Mn}(\text{H}_2\text{O})_2]^{2+}$ and photochromic $[\text{Fe}(\text{CN})_5\text{NO}]^{2-}$ building blocks. CrystEngComm, 2021, 23, 2733-2745.	2.6	1
81	Na-Alternative to Tinsleyite Obtained under Hydrothermal Conditions: Crystal Structure and Comparative Crystal Chemistry. Minerals (Basel, Switzerland), 2022, 12, 542.	2.0	1
82	The effect of doping on the electron properties of carbon films. Technical Physics Letters, 2002, 28, 602-603.	0.7	0
83	3-Methylamido- β -ethylenedithiotetrathiafulvalene(+) potassium tetrakisothiocyanatomercury(II). Acta Crystallographica Section C: Crystal Structure Communications, 2007, 63, m126-m128.	0.4	0
84	First radical cation salts of 2,5-bis(1,3-dithian-2-ylidene)-1,3,4,6-tetrathiapentalene (BDA-TTP) with copper(II) metal complex anions: $\hat{I}^{2-} \cdot (\text{BDA-TTP})_4 \text{Cu}_2\text{Cl}_6$ and $(\text{BDA-TTP})_2 \text{CuCl}_4$. Russian Chemical Bulletin, 2007, 56, 49-55.	1.5	0
85			

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91	Cyano-Bridged Dy(III) and Ho(III) Complexes with Square-Wave Structure of the Chains. <i>Inorganics</i> , 2022, 10, 41.	2.7	0