

Sergey A Medvedev

List of Publications by Year in descending order

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66
papers

3,697
citations

331538

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docs citations

71
times ranked

5122
citing authors

#	ARTICLE	IF	CITATIONS
1	Exotic magnetic and electronic properties of layered CrCl_3 single crystals under high pressure. <i>Physical Review B</i> , 2022, 105, .	1.1	5
2	Spiral magnetism, spin flop, and pressure-induced ferromagnetism in the negative charge-transfer-gap insulator Sr_2IrO_7 . <i>Physical Review B</i> , 2022, 105, .	1.1	5
3	Pressure-induced superconductivity and modification of Fermi surface in type-II Weyl semimetal NbIrTe_4 . <i>Npj Quantum Materials</i> , 2021, 6, .	1.8	8
4	Suppression of axionic charge density wave and onset of superconductivity in the chiral Weyl semimetal TaS_2 . <i>Physical Review Materials</i> , 2021, 5, .	0.9	12
5	A Room-Temperature Verwey-Type Transition in Iron Oxide, Fe_5O_6 . <i>Angewandte Chemie</i> , 2020, 132, 5681-5685.	1.6	2
6	A Room-Temperature Verwey-Type Transition in Iron Oxide, Fe_5O_6 . <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5632-5636.	7.2	17
7	Anisotropic superconductivity and quantum oscillations in the layered dichalcogenide TaSnS_2 . <i>Physical Review B</i> , 2020, 102, .	1.1	1
8	Coexistence of Superconductivity and Charge Density Waves in Tantalum Disulfide: Experiment and Theory. <i>Physical Review Letters</i> , 2020, 125, 186401.	2.9	24
9	Tuning of the Electronic and Vibrational Properties of Transition Metal Selenides TSe_2 ($\text{T} = \text{Os}, \text{Ru}$) and Their Metallization at High Pressures. <i>JETP Letters</i> , 2020, 111, 456-462.	0.4	1
10	Innenteilbild: A Room-Temperature Verwey-Type Transition in Iron Oxide, Fe_5O_6 (Angew. Chem. 14/2020). <i>Angewandte Chemie</i> , 2020, 132, 5450-5450.	1.6	0
11	Pressure-induced collapse of large-moment magnetic order and localized-to-itinerant electronic transition in the host-guest compound $\text{CsMn}_6\text{Cl}_6\text{S}_6$. <i>Physical Review B</i> , 2020, 101, .	1.1	0
12	Pressure-induced metalization transition in the double perovskite Mn_2S_2 : Magnetic and magnetotransport properties at ambient pressure and ferro- to antiferromagnetic transition. <i>Physical Review B</i> , 2020, 101, .	1.1	8
13	Pressure-induced metalization transition in the double perovskite Pd_2S_2 : type structure, and superconductivity in palladium disulfide. <i>Physical Review B</i> , 2019, 100, .	1.1	25
14	Pressure-Induced Semiconductor-Semimetal Transition in $\text{Rb}_0.8\text{Fe}_1.6\text{S}_2$. <i>JETP Letters</i> , 2019, 109, 536-540.	0.4	2
15	Large resistivity reduction in mixed-valent CsAuBr_3 High-pressure magnetism of the double perovskite $\text{Sr}_2\text{Fe}_2\text{O}_7$ studied by synchrotron	1.1	8
16	High-pressure magnetism of the double perovskite $\text{Sr}_2\text{Fe}_2\text{O}_7$ studied by synchrotron Mn^{5+} Mössbauer spectroscopy. <i>Physical Review B</i>	1.1	5
17	Pressure-induced Lifshitz transition in NbP : Raman, x-ray diffraction, electrical transport, and density functional theory. <i>Physical Review B</i> , 2018, 97, .	1.1	5
18	Pressure-induced superconductivity and topological quantum phase transitions in a quasi-one-dimensional topological insulator: Bi_4I_4 . <i>Npj Quantum Materials</i> , 2018, 3, .	1.8	34

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19	Pressure-induced Lifshitz and structural transitions in NbAs and TaAs: experiments and theory. Journal of Physics Condensed Matter, 2018, 30, 185401.	0.7	8
20	Interplay Between Superconductivity and Magnetism in Cu-Doped FeSe Under Pressure. Journal of Superconductivity and Novel Magnetism, 2018, 31, 763-769.	0.8	6
21	Pressure-induced metallization in layered ReSe ₂ . Journal of Physics Condensed Matter, 2018, 30, 035401.	0.7	12
22	Topological Quantum Phase Transition and Superconductivity Induced by Pressure in the Bismuth Tellurohalide BiTeI. Advanced Materials, 2017, 29, 1605965.	11.1	51
23	More Than 50 Years after Its Discovery in SiO ₂ Octahedral Coordination Has Also Been Established in SiS ₂ at High Pressure. Inorganic Chemistry, 2017, 56, 372-377.	1.9	6
24	Pressure-induced superconductivity up to 13.1 K in the pyrite phase of palladium diselenide PdS_2 . Physical Review B, 2017, 96, .	1.1	66
25	Pressure-induced superconductivity up to 13.1 K in the pyrite phase of palladium diselenide PdS_2 and the collapsed tetragonal phase in BaC_2 . Physical Review B, 2017, 95, .	1.1	13
26	Pressure-induced magnetic collapse and metallization of TlFe _{1.6} Se ₂ . Physical Review B, 2017, 96, .	1.1	5
27	Large nonsaturating magnetoresistance and pressure-induced phase transition in the layered semimetal HfTe_2 . Physical Review B, 2017, 96, .	1.1	34
28	Pressure effect on superconductivity in FeSe _{0.5} Te _{0.5} . Physica Status Solidi (B): Basic Research, 2017, 254, 1600161.	0.7	7
29	Suppression of the ferromagnetic order in the Heusler alloy Ni ₅₀ Mn ₃₅ In ₁₅ by hydrostatic pressure. Applied Physics Letters, 2016, 108, 261903.	1.5	8
30	Atomic and electronic structures evolution of the narrow band gap semiconductor Ag ₂ Se under high pressure. Journal of Physics Condensed Matter, 2016, 28, 385801.	0.7	9
31	Pressure-driven superconductivity in the transition-metal pentatelluride HfTe_5 . Physical Review B, 2016, 94, .	1.1	46
32	Pressure-induced transition to Ni ₂ In-type phase in lithium sulfide (Li ₂ S). Solid State Sciences, 2016, 61, 220-224.	1.5	4
33	Superconductivity in Weyl semimetal candidate MoTe ₂ . Nature Communications, 2016, 7, 11038.	5.8	611
34	Correlation Between T _c and Hyperfine Parameters of Fe in Layered Chalcogenide Superconductors. Journal of Superconductivity and Novel Magnetism, 2016, 29, 573-576.	0.8	4
35	Intercalation effect on hyperfine parameters of Fe in FeSe superconductor with T _c = 42 K. Europhysics Letters, 2015, 109, 67004.	0.7	10
36	Phase transitions of cesium azide at pressures up to 30 GPa studied using <i>in situ</i> Raman spectroscopy. Journal of Applied Physics, 2015, 117, 165901.	1.1	10

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37	Structural transitions under high-pressure in a langasite-type multiferroic Ba ₃ TaFe ₃ Si ₂ O ₁₄ . Solid State Sciences, 2015, 49, 37-42.	1.5	2
38	Phase Separation in RbxFe2 ^y Se ₂ Probed by Non-stoichiometry and Cu Doping. Journal of Superconductivity and Novel Magnetism, 2015, 28, 1315-1319.	0.8	8
39	Ammonia as a case study for the spontaneous ionization of a simple hydrogen-bonded compound. Nature Communications, 2014, 5, 3460.	5.8	70
40	Pressure-induced structural phase transition in the half-Heusler compound CaAuBi. Solid State Sciences, 2014, 30, 6-10.	1.5	24
41	Structure and electrical resistivity of mixed-valent EuNi ₂ P ₂ at high pressure. Journal of Physics Condensed Matter, 2014, 26, 335701.	0.7	6
42	Large resistivity change and phase transition in the antiferromagnetic semiconductors LiMnAs and LaOMnAs. Physical Review B, 2013, 88, .	1.1	34
43	Effect of pressure on superconductivity in NaAlSi. Physical Review B, 2012, 86, .	1.1	16
44	Superconductivity and magnetism in Rb _{0.8} Fe _{1.6} Se ₂ under pressure. Physical Review B, 2012, 85, .	1.1	27
45	Pressure-tuned vibrational resonance coupling of intramolecular fundamentals in ammonium azide (NH ₄ N ₃). Vibrational Spectroscopy, 2012, 58, 188-192.	1.2	17
46	Molecular Structure of Hydrazoic Acid with Hydrogen-Bonded Tetramers in Nearly Planar Layers. Journal of the American Chemical Society, 2011, 133, 12100-12105.	6.6	69
47	Phase separation in superconducting and antiferromagnetic $Rb_{0.8}Fe_{1.6}Se_2$ by Mössbauer spectroscopy. Physical Review B, 2011, 84, .	1.1	98
48	Pressure induced polymorphism in ammonium azide (NH ₄ N ₃). Chemical Physics, 2011, 386, 41-44.	0.9	37
49	Pressure-restored superconductivity in Cu-substituted FeSe. Physical Review B, 2011, 84, .	1.1	19
50	Density of phonon states in superconducting FeSe as a function of temperature and pressure. Physical Review B, 2010, 81, .	1.1	34
51	Exotic magnetism in the alkali sesquioxides Rb ₄ O ₆ and Cs ₄ O ₆ . Physical Review B, 2009, 79, .	1.1	22
52	Phase stability of lithium azide at pressures up to 60 GPa. Journal of Physics Condensed Matter, 2009, 21, 195404.	0.7	58
53	Transparent dense sodium. Nature, 2009, 458, 182-185.	13.7	710
54	Electronic and magnetic phase diagram of $Fe_{1.01}Se$ with superconductivity at 36.7 K under pressure. Nature Materials, 2009, 8, 630-633.	13.3	943

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55	Synthesis of High-Nitrogen Energetic Material. , 2009, , 75-97.		11
56	Superconductivity in Hydrogen Dominant Materials: Silane. Science, 2008, 319, 1506-1509.	6.0	340
57	Transformation from molecular to polymeric nitrogen at high pressures and temperatures: <i>In situ</i> x-ray diffraction study. Applied Physics Letters, 2008, 93, .	1.5	16
58	Orientalional order in the molecular solids N ₂ , CO, and O ₂ investigated via combined excitations with FTIR. Physical Review B, 2007, 75, .	1.1	5
59	Low-temperature phases of solid oxygen at pressures up to 8 GPa determined by Raman and infrared spectroscopy. Physical Review B, 2005, 72, .	1.1	15
60	Pressure Effect on the Optical Bandshape of Solid Oxygen. Journal of Physical Chemistry B, 2003, 107, 4768-4776.	1.2	4
61	Study of magnon mode characteristics in solid oxygen by high resolution spectroscopy. Journal of Physics Condensed Matter, 2003, 15, 7375-7384.	0.7	3
62	Nature of infrared-active phonon sidebands to internal vibrations: Spectroscopic studies of solid oxygen and nitrogen. Physical Review B, 2002, 66, .	1.1	13
63	FTIR Study of Electronic Transitions in Solid Oxygen at High Pressure and Low Temperature. Journal of Low Temperature Physics, 2001, 122, 323-330.	0.6	4
64	Fourier transform infrared spectroscopy of electronic excitations to probe magnetic order and phase transitions in solid oxygen. Physical Review B, 2001, 63, .	1.1	10
65	Solid oxygen as low dimensional system by spectroscopic studies. , 2001, , 217-234.		0
66	Amorphous-crystalline films of fullerite C ₆₀ . Low Temperature Physics, 1999, 25, 79-80.	0.2	0